

**Publication No: 820-R-14-003**

**FINAL PEER REVIEW REPORT**

**External Peer Review of EPA's Draft Document**  
*Fish Consumption Rates*

**Peer Reviewers:**

Patricia M. Guenther, Ph.D., RD  
Dale Hattis, Ph.D.  
Kenneth M. Portier, Ph.D.  
Janet A. Tooze, Ph.D., M.P.H.

Contract No. EP-C-13-010  
Task Order 2013-05

February 1, 2014

**TABLE OF CONTENTS**

I. INTRODUCTION .....1

II. CHARGE TO REVIEWERS .....2

III. GENERAL IMPRESSIONS.....4

IV. RESPONSE TO CHARGE QUESTIONS.....7

    Charge Question 1..... 7

    Charge Question 2..... 9

    Charge Question 3..... 13

    Charge Question 4..... 15

    Charge Question 5..... 18

    Charge Question 6..... 23

    Charge Question 7..... 24

    Charge Question 8..... 27

    Charge Question 9..... 28

    Charge Question 10..... 30

V. INDIVIDUAL REVIEWER COMMENTS .....31

    Patricia M. Guenther, Ph.D., RD ..... 32

    Dale Hattis, Ph.D. .... 37

    Kenneth M. Portier, Ph.D. .... 43

    Janet A. Tooze, Ph.D., M.P.H..... 57

Attachment A: EPA’s Draft Document “Fish Consumption Rates” .....63

Attachment B: Mark-up of Draft Document by Patricia M. Guenther, Ph.D., RD .....64

## I. INTRODUCTION

In October 2000, the Environmental Protection Agency's (EPA) Office of Water (OW) published a document titled, "Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health." This document presented EPA's recommended methodology for developing human health ambient water quality criteria (HHAWQC) as required under Section 304(a) of the Clean Water Act (CWA). For each pollutant, chronic criteria were derived to reflect long-term consumption of fish and water. The fish consumption rate recommended for use in calculating human health criteria in the 2000 Methodology was derived from an analysis of the 1994 to 1996 data from the USDA's Continuing Survey of Food Intake by Individuals (CSFII) Survey.

As fish consumption may have changed over the past decade and new analytical methodologies have been developed, OW has conducted a new analysis of fish consumption rates (FCR). These new FCRs were estimated using data from the National Health and Nutrition Examination Survey (NHANES) 2003-2010. NHANES is a continuous survey designed to collect data on the health and nutritional status of the U.S. population.

EPA's draft document (Attachment A) presents the methodologies used to extract fish consumption data from the NHANES datasets, including the habitat apportionment methodology, the trophic level assignment methodology, and the statistical methodology using a modified version of the NCI Method. EPA intends to use the analyses of the NHANES data described in the document for peer review to update the general population fish consumption rate recommendations in the 2000 Methodology. EPA also intends to provide the data publically for use by states and tribes in generating more site specific HHAWQC with more localized data.

The purpose of the requested letter review was for EPA to receive written comments from individual experts on the scientific merit of the document, appropriateness of the assumptions made, methods utilized, and quality and relevance of the data.

### **Peer Reviewers:**

#### **Patricia M. Guenther, Ph.D., RD**

Guenther Consulting  
Salt Lake City, UT

#### **Dale Hattis, Ph.D.**

Clark University  
Worcester, MA

#### **Kenneth M. Portier, Ph.D.**

America Cancer Society  
Atlanta, GA

#### **Janet A. Tooze, Ph.D., M.P.H.**

Wake Forest School of Medicine  
Winston-Salem, NC

## II. CHARGE TO REVIEWERS

The National Water Program Guidance for fiscal year (FY) 2011 describes how the Environmental Protection Agency (EPA), states, and tribal governments will work together to protect and improve the quality of the Nation's water, including wetlands, and ensure safe drinking water. The Guidance describes the key actions needed to accomplish the public health and environmental goals proposed in the EPA 2010-2015 Strategic Plan. These goals are: Protect public health by improving the quality of drinking water, making fish and shellfish safer to eat, and assuring that recreational waters are safe for swimming.

Human health ambient water quality criteria (HHAWQC) for chemical pollutants are derived to establish ambient concentrations of pollutants which, if not exceeded, will protect the general population from chronic adverse health effects from those pollutants due to consumption of aquatic organisms and water. The procedures for calculating HHAWQC were described in the EPA's "Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health" (2000 Methodology) EPA-822-B-00-004 (USEPA 2000). For each pollutant, chronic criteria are derived to reflect long-term consumption of fish and water. The fish consumption rate recommended for use in calculating human health criteria in the 2000 Methodology was derived from an analysis of the 1994 to 1996 data from the USDA's CSFII Survey. The recommended fish consumption rate of 17.5 g/day represents the 90th percentile of the 1994-96 CSFU data for the adult population (Jacobs, et al). This value also represents the uncooked weight estimated from the CSFII data, and represents intake of freshwater and estuarine finfish and shellfish only.

The EPA believes that States and authorized Tribes should have the flexibility to develop criteria, on a site-specific basis, that provide additional protection appropriate for different or unique populations. The EPA is aware that exposure patterns in general, and fish consumption in particular, vary substantially. The EPA understands that unique or highly exposed populations may be widely distributed geographically throughout a given State or Tribal area. The EPA recommends that priority be given to identifying and adequately protecting these unique and highly exposed populations.

The report submitted for peer review documents an analysis of the 2004-2010 NHANES data on the fish consumption and the association of fish consumption with geography, age, sex, ethnic race, and income.

### Charge Questions:

1. Is the document logical, clear and concise? Explain. If not, how could the document be improved?
2. Were scientific and statistical assumptions explained and are they appropriate? Explain.
3. Has appropriate literature been cited? Explain. Are there publicly available, peer-reviewed papers that should be included? Explain.
4. Is the methodology as presented and defined in the report scientifically appropriate for meeting the objectives of the project? Additionally and specifically:

- a. Please comment on methods for calculating fish consumption rates.
  - b. Please comment on the means for combining fish frequency data.
  - c. Please comment on the method used to apportion species.
5. Please comment on appropriateness of the models used for estimating fish consumption rates, focusing on both the "NCI method" and the "modified EPA method."
- a. Is the EPA method clearly described and supported? Explain.
  - b. Are uncertainties in the EPA model identified and characterized? Explain.
6. Is the EPA method adequate for accomplishing the objective? Explain.
7. Specifically in regards to the analysis:
- a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.
  - b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?
8. Are the results presented in the report understandable and appropriate for meeting the objectives of the project? Explain. If not, how could the presentation of the results be improved?
9. Are scientific uncertainties explained and are they appropriate? Explain.
10. The data used in the analysis have been subdivided based on demographic and geographical characteristics of the respondents. Are the subsets of data sufficiently robust to characterize fish consumption within the subgroups for the purposes stated in the report? Please provide your response for each of the major subgroup categories included in the main body of the report.

### III. GENERAL IMPRESSIONS

*Patricia M. Guenther, Ph.D., RD*

In general, the methods and procedures should be clear enough so that they could be independently produced; this is not the case for how the dietary data were handled.

It is not possible to judge the accuracy of the information presented because it is impossible to know exactly what types of fish and the exact amounts of fish that were consumed by the survey participants. One must assume that the reports of 24-hour dietary intake were accurate, precise, and unbiased; and this should be stated in the report.

The limitations of the standardized recipes used for mixed dishes were not mentioned. This probably is not an important factor because most fish are probably not consumed as part of a mixed dish; however, it should be mentioned.

It is not stated anywhere that the amounts presented in the tables are uncooked amounts of fish. How the cooked amounts reported by survey participants were converted to uncooked amounts is unclear. It is also unclear if the uncooked amounts are for the edible portion of fish or for the entire fish.

I leave it to the statisticians to decide if the statistical methods used are clear and sound; however, it does seem that the modified NCI method yielded results that are fit for use in terms of how close they are to estimates from the original NCI method.

*Dale Hattis, Ph.D.*

This is a very good piece of work, applying very sophisticated statistical methods to the available data. However, it could be improved by adding a discussion chapter that analyzes and summarizes the findings relevant to risk assessment. I have done some preliminary analysis of geometric means and geometric standard deviations for total fish consumption from probability plots of the percentile information (see table on the next page.) Using this kind of analysis, the reader could be informed, for example that among racial groups, the "other race" category stands out as having higher overall fish consumption than other races. I assume this is due to the inclusion of Native Americans in that group, some of whom are subsistence fishers and are particularly at risk for high consumption of locally-caught fish and shellfish. It is also of interest that women of child-bearing age have slightly smaller geometric mean consumption but a greater apparent interindividual variability in consumption than other age/sex groups. Another aspect that could be improved would be to provide an additional set of data tables in which the dependent variable was not raw grams consumed per day per person, but grams consumed per kilogram of body weight. This could be readily done using the same methodology because the NHANES data include individual body weights. Finally, I think it would be helpful to show calculations of geometric standard deviations by the various breakdowns in the detailed tables so that the reader could appreciate (1) which groups have more or less variability in fish consumption and (2) so that comparisons could be made to long-term biomarkers of fish consumption, such as methylmercury and PCB blood concentration distributions. These latter

statistics may be in part available from other measurements in the NHANES data. In addition, I published some older data on these variables:

Hattis, D. and Burmaster, D. E. "Assessment of Variability and Uncertainty Distributions for Practical Risk Analyses" Risk Analysis, Vol. 14, pp. 713-730, 1994.

**Table of Results of Lognormal Fitting to the Consumption Percentiles for All Fish  
(Based on Data from Table 6a)**

Group	Geom Mean (g/day)	Geom. Std Dev.
All adults	14.61	2.247
Males	17.02	2.216
Females	13.03	2.216
Women 13-49	9.66	2.512
21-35	11.56	2.498
35 - < 50	14.62	2.172
50-<65	20.33	2.025
65+ yrs	13.21	2.218
Non-Hisp White	13.67	2.231
Non-His Black	16.78	2.090
Other Race	27.39	2.044

***Kenneth M. Portier, Ph.D.***

Overall, I find the report readable, stays on topic and comprehensive. There are very few areas needing major revision and the writing is clear and concise with very, very few spelling errors.

This said, I do see an alternate way of reorganizing the information in Chapter 4 to improve flow and understanding (see responses to charge questions 1 and 3 specifically).

***Janet A. Tooze, Ph.D., M.P.H.***

I found the layout of this report to be presented in a logical, clear, and concise manner. The classification of the fish groupings from the 24-hour recall data appeared to be done appropriately using the NHANES data as well as other sources. Being able to obtain the information from NHANES on geographical region is a strength. The tables are clearly presented and are provided for a broad range of fish type and subgroup. The document demonstrated a sound understanding of the NCI method. However, there are serious concerns about the validity of the estimates produced by the modified EPA method. In particular, this method makes a number of approximations to the NCI method, but it does not fully explore the implications of each of these approximations, nor does it fully justify the approximations that are made. Furthermore, details were lacking regarding some of the statistical methods including: validation of the modified EPA Method, construction of BRR weights, inclusion of covariates in models, and construction of subgroup estimates. From the report, it is not apparent that the time savings from making a number of approximations in the modified EPA method is worth the potential loss in bias and efficiency of the estimates produced. The dataset that was constructed

of fish consumption for NHANES participants appeared to be developed making reasonable assumptions and I have no concerns about the dataset used. I am concerned that the statistical methods utilized to estimate the distribution of usual fish intake is not well justified, and could lead to biased estimates.

#### IV. RESPONSE TO CHARGE QUESTIONS

##### **Charge Question 1**

*Is the document logical, clear and concise? Explain. If not, how could the document be improved?*

*Patricia M. Guenther, Ph.D., RD*

In general, yes; however, the dietary data processing needs to be described more clearly.

*Dale Hattis, Ph.D.*

Yes. However, it could go into more detail for the non-statistician on the choices of distributional methods. Overall these seem reasonable, and the comment that there is very little difference between log-logistic and lognormal distributions is helpful. It might also be helpful to explain, if it is true, that the logistic distributions were selected for modeling because of greater mathematical tractability than lognormals.

*Kenneth M. Portier, Ph.D.*

I found the document logically ordered and the writing clear and concise but confusing in a couple of places.

The document defines its objective in the Background section and identifies the major data source in Chapter 2.

Chapter 3 introduces the NCI method, which is again described in Sections 4.4.1 and 4.4.2. Not certain why one even needs Chapter 3 since the material in Chapter 3 might be better as a background section in Chapter 4 (or a new Statistical Methods Chapter).

Chapter 4 combines a number of “methods” that could very easily comprise their own chapters. The methods discussion around habitat apportionment (Section 4.1) and trophic level assignment (section 4.2) could be combined in one chapter describing how fish-related characteristics are used in estimating (stratified) consumption rates. The specific comments to Question 2 suggest some ways that these Sections (or new Chapter) might be better organized. In particular, organizing the apportionment discussion around the “rules” and data sources used in apportionment would improve understanding.

Section 4.3 on “Extracting reported amounts of fish consumed” could be a part of Chapter 2 since it really describes how the FNDDS files were processed to find food codes containing finfish and shellfish, hence it tells us in more detail what NHANES data were actually used.

Section 4.4 (Statistical Methods) deserves its own chapter (called Statistical Methods) since it contains the key discussions of the NCI method for estimation of fish consumption and described the modifications of this approach that constitutes the “EPA method.” This discussion could benefit from a short discussion relating sample size to estimate uncertainty to help answer the question of “How many observations are needed to estimate consumption to a specified level of precision?”

Chapter 5 (Results) can benefit from more discussion of model goodness of fit.

Overall, there is a need to standardize labels. In the report I find references to the “NCI method,” the “NCI model,” the “EPA model,” the “EPA approach,” the “EPA method,” the “Modified NCI Method” (page 22) and in the Figures, the “Westat Modified NCI Method.” It initially was difficult to know how many “methods” were really under consideration. Was it two or three? Only after one reads Chapter 4 do you realize there are only two “methods,” with two “models” for each method, one for probability of fish consumption and one for amount of fish consumed. I will refer to the NCI and the EPA “methods” in my remarks. Occasionally, I will refer to the model for estimating the probability of fish consumption and the model for amount of fish consumed for specific methods. There are also two “methods” for simulating UFC based on the fitted NCI or EPA method estimated parameters and associated models.

Additional suggestions for report improvement can be found in my replies to the remaining questions.

***Janet A. Tooze, Ph.D., M.P.H.***

In general, the document is clear, logical, and concise. The document is logically organized in the order of presentation, and outlines all necessary sections of the study population, methods, and results. The results are clearly presented. There are some details lacking in the statistical analysis section (see questions 4 and 5).

**Charge Question 2**

***Were scientific and statistical assumptions explained and are they appropriate? Explain.***

***Patricia M. Guenther, Ph.D., RD***

Yes, the assumptions underlying the NCI method were well explained. However, the assumptions made about the standardized recipes in the FNDDS were not mentioned. A statement of the assumption that the reports of 24-hour dietary intake were accurate, precise, and unbiased is also missing.

***Dale Hattis, Ph.D.***

The statistical assumptions were described but the reasoning underlying them could have been more fully explained (see previous comment).

***Kenneth M. Portier, Ph.D.***

I did not find any specific sections discussing scientific or statistical assumptions in the report. Scientific and statistical assumptions seem to be discussed as needed throughout the document. I think it is appropriate that it be done this way.

Further, discussion of assumptions is needed in a number of places as outlined below.

Page 1: We are told that the current default fish consumption rate (FCR) used by OW are the 90<sup>th</sup> and 99<sup>th</sup> percentile estimates from the freshwater and estuarine fish consumption distributions computed from the CSFII. When you get to the bottom of Page 2 you find that we will actually be provided with “the UFCR estimates and 95 % CI of the mean and the 25th, 50th, 75th, 90th, 95th, 97th, and 99th percentiles.” There is no discussion (or justification) for why these particular percentiles (probably to illustrate the right tail of the consumption distribution which is where risk assessment interest is greatest). Why not also provide 5%-tiles up to 95% and illustrate the whole distribution?

Page 1: It is stated that “As fish consumption may have changed over the past decade...” What is the evidence for this as a reasonable assumption on which to justify the effort of creating new estimates? [One or a couple of references to current studies, popular reports, NOAA landings values, etc. would satisfy this need.]

Page 1: Reference is made to the NCI method. Have other methods been proposed but rejected?

Page 1: It is stated that “The calculation using the NCI Method are very time consuming.” It is assumed that either: 1) EPA does not have the time to make these calculations or 2) EPA cannot find the computational power to makes these calculations in a reasonable amount of time. I don't find this discussed anywhere. Acceptance of this assumption is key to justifying the development and use of the EPA modified method.

Page 2: Estimates are desired for 18 different categories of fish. It is assumed that each category is important to some entity. Nowhere is there discussion as to why these categories specifically are chosen.

Page 3: Chapter 2 discusses the NHANES as a quality source of finfish and shellfish consumption for the general US population. Are we to assume that this is the only source of such data? A discussion of other potential sources for fish consumption data and why the NHANES was used is needed.

Page 5: The FNDDS is discussed in general (here, but in more detail in Section 4.3), but the “science” behind this database merits at least a paragraph. This database is used in the critical step of translating what is eaten (a menu item) to how much fish is consumed.

Page 7: The scientific and statistical assumptions of the NCI method are covered in Question 4.

Page 8: While “The assignments of species were completed by a fisheries biologist” it is not clear what assumptions and/or rules were employed in this assignment. If I were to employ a different fisheries biologist, would that individual come up with the same habitat apportionment? By providing insight into the assumptions and rules used by the fisheries biologist, we are better able to ensure repeatability (a scientific method characteristic) to this process. The “decisions” listed in the four bullets are actually some of the “rules” used by the fisheries biologist in the assignment. Are these all of the rules? It is clear that NOAA landings data factor into these “rules” (Section 4.1.2). In addition, the final rule is “that unspecified fish consumed was assigned the overall average habitat apportionment of all species reported consumed.” Is this reasonable?

Page 11: The statement, “No species in a group was assigned 0 percent based on a 0 count in the files, because it may be reported in another NHANES cycle,” requires additional clarification. What was the rule used to assign the value greater than zero?

Page 14: The fourth bullet on this page refers to “best professional judgment” and an example in catfish is described. Is catfish the only NHANES grouping that is impacted by this “rule”? Table 3 might be modified to indicate which fish allocation is impacted by “best professional judgment.” The scientific issue here is repeatability.

Pages 17-20: Assumptions for statistical methods presented in Question 5.

Page 20: (Section 4.4.3) It is not clear from the first sentence in this section whether the bulleted statements represent constraints on the NCI method estimates when used for simulating fish consumption or whether these statements are constraints under which the NCI method estimates are derived. I think these bullets are actually establishing the specific “reality” we are attempting to simulate using the information from the fitted NCI model.

Paragraphs 4 and 5 on page 54 (Section 5.4.2) initiate a discussion on model assumptions but doesn't really take it very far. In paragraph 4, you say "The validity of these assumptions can be discussed and, to some extent evaluated using data." but don't elaborate. Maybe a little elaboration is justified. At the bottom of page 54, you write "In our opinion, the NCI method makes reasonable assumptions and, given the assumptions, has adequate sample size to provide estimates with little bias relative to the confidence interval width." I personally tend to agree with the report on this, but I suggest giving the reader a little more, especially about the reasonableness of the method assumptions.

The issue of how fish never-consumers are handled is never addressed:

*One issue that is not addressed in the report impacts how the results of this study are used in a population risk assessments when the population consists of a fraction of individuals who, for personal reasons, never eat fish. Estimates of US residents who self-report as vegetarian or vegan range (not fish consumers) from a low of about 2.5% to a high of about 13.7% of the population (see [http://en.wikipedia.org/wiki/Vegetarianism\\_in\\_the\\_United\\_States#USA](http://en.wikipedia.org/wiki/Vegetarianism_in_the_United_States#USA) for details).*

*The NCI and EPA methods seem to assume that every individual who provides data via the NHANES 24-hour or 30-day surveys has a positive probability of consuming fish over the covered time period. In statistical jargon, they assume an underlying continuous distribution of consumption. With this assumption, for any individual if we were able to effectively record consumption for a long enough period of time, every individual would be observed eating fish at least once in that time period. The reality is that the underlying fish consumption distribution is a mixture distribution with a positive probability of fish non-consumption (of say  $p=.025$  to  $.137$ ) and one minus this probability of consumption.*

*The problem lies in that the NHANES survey does not have a question that identifies individuals who would "never eat fish," hence it does not allow us to easily split out "fish consumers" from "fish non-consumers". The individuals who report no fish consumption are a mixture of "never consumers" and "low likelihood consumers." The NCI method estimate of the probability of fish consumption in a 24-hour period essentially uses one probability for the mixture. This issue is not a problem at the estimation phase but does come up when the estimated model is used to simulate an individual's long-term probability of fish consumption. The equations on page 21 suggest that the long-term probability of fish consumption ( $Q_{Uj}$ ) will always be greater than zero (distribution is assumed Logistic, a continuous distribution, and hence the probability of a single value (0) is zero.) But this model uses the estimated 24-hour consumption probability ( $P$ , page 19) that includes the mixture. So, the problem is that the simulation is really about fish consumers, but one of the parameters used in the simulation ( $P$ , which affects the estimate of the other " $\pi_s$ ") represents both consumers and non-consumers. The ultimate result is that the percentiles for the fish consumption distribution are all likely to be over estimates which conveniently adds a conservative lean to population risk assessments.*

*Janet A. Tooze, Ph.D., M.P.H.*

The document demonstrates a thorough understanding of the NCI method and the assumptions that it makes. There are no concerns about the implementation of this method; however, it was only used to compare to the EPA method, not to make the estimates in the report. The authors used what they are calling the modified EPA method to produce the tables in this report, and the implications of the assumptions of this method are not as clearly described as the assumptions of the NCI method. In Section 5.4.2, the assumptions made and discussed are that of the NCI method; however, the modified NCI method is what is used in this report, and the assumptions that it makes should be addressed in this section, rather than that of the NCI method. It is not clear from this report that the authors understand what the implications of the assumptions of this modified EPA method are. For example, the authors compare their method to the NCI method, and show that in some cases it provides higher estimates than the NCI method. However, it is not clear from the report why this is so, and what assumptions of their method lead to this potential bias.

**Charge Question 3**

***Has appropriate literature been cited? Explain. Are there publicly available, peer-reviewed papers that should be included? Explain.***

***Patricia M. Guenther, Ph.D., RD***

For the most part, yes. The Freedman paper is irrelevant to this analysis and should be omitted. It may be helpful to list Kipnis et al., 2009, "Modeling data with excess zeros and measurement error: application to evaluating relationships between episodically consumed foods and health outcomes," *Biometrics* 65, 1003–1010, because it demonstrates the usefulness of food frequency data as covariates (although for a different purpose).

***Dale Hattis, Ph.D.***

These might be cited for background and for the distributions of exposure to seafood-borne contaminants:

Hattis, D. and Burmaster, D. E. "Assessment of Variability and Uncertainty Distributions for Practical Risk Analyses" Risk Analysis, Vol. 14, pp. 713-730, 1994.

Hattis, D., "Using Indicator Information for Managing Risks," Chapter 14 in: Environmental Indicators and Shellfish Safety, C. R. Hackney and M. D. Pierson, eds., Chapman & Hall, New York, pp. 364-380, 1993.

Ahmed, F. E., Hattis, D., Wolke, R. E., and Steinman, D., "Human Health Risks Due to Consumption of Chemically Contaminated Fishery Products," *Environ. Health Perspect.*, Vol. 101 (Suppl. 3), pp. 297-302, 1993

Probably there are other more recent references that would be appropriate for similar reasons.

***Kenneth M. Portier, Ph.D.***

A number of places need citations.

Page 1: References to justify the statement that fish consumption rates have been changing. Reference to increasing NOAA landings values might suffice here, although looking at NMFS total landings data suggests decreased tonnage from 1993 to 2012 (4.6 MT in 1993 to 4.2MT in 2012).

Page 8: The second bullet incorporates a quote but there is no indication where this quote comes from. (I assume this is part of the Clean Water Act, but not certain.) This statement also requires further clarification since the current sentence structure is complex making it difficult to understand.

Page 13: The two references used for trophic level assignments are EPA technical reports from 2002 and 2003. Have these documents been examined recently to ensure they continue to describe "best science?"

Page 22: Section 4.4.4 - This section should be significantly increased. A reference for method of computing confidence limits on the log scale and back transforming is provided below. The method for using full sample weights and replicate weights with NHANES data can be complicated for the uninitiated. I don't think the NHANES web site provides sufficient information for the reader of this report to understand how weights should (are) used in the analysis. The design effects discussion in the NCHS 2005 reference given is inadequate for this. A reference or two here, and/or a short discussion in an appendix, would ensure that future readers are not confused on what was done here. The four steps for computing the CIS really need to be described in greater detail. Again, the issue here is ensuring that readers are able to replicate the report results (scientific validity).

Gilbert, Richard O., *Statistical Methods for Environmental Pollution Monitoring*, 1987, Van Nostrand Reinhold, NY, NY, Chapter 13 Characterizing Lognormal Populations, pp 164-176.

Page 22: A reference/web link for the MIXTRAN macro is needed.

***Janet A. Tooze, Ph.D., M.P.H.***

It appears that appropriate literature has been cited in this report, with the exception of the modified EPA method that is presented. No literature is cited to support the modified EPA method that is used for the estimates given in the table. It appears to be an ad hoc method that has not been peer reviewed.

**Charge Question 4**

*Is the methodology as presented and defined in the report scientifically appropriate for meeting the objectives of the project? Additionally and specifically:*

- a. Please comment on methods for calculating fish consumption rates.*
- b. Please comment on the means for combining fish frequency data.*
- c. Please comment on the method used to apportion species.*

*Patricia M. Guenther, Ph.D., RD*

*a. Please comment on methods for calculating fish consumption rates.*

The modifications made to the NCI method seem satisfactory, but I defer to the statisticians.

*b. Please comment on the means for combining fish frequency data.*

If this refers to Section 2.2.2, then the methodology is appropriate.

*c. Please comment on the method used to apportion species.*

Reasonable.

*Dale Hattis, Ph.D.*

Yes, except that for understanding dosage distributions. I think it would be helpful to calculate fish consumption per unit body weight per day in addition to raw fish consumption per day.

*a. Please comment on methods for calculating fish consumption rates.*

These seem reasonable and generally appropriate.

*b. Please comment on the means for combining fish frequency data.*

As far as I could tell, the authors also seem to have made reasonable choices here.

*c. Please comment on the method used to apportion species.*

Seems OK.

*Kenneth M. Portier, Ph.D.*

I will assume that this question is asking about the methodology of processing the NHANES data to obtain short-term fish consumption likelihood and amount. Questions 5 and 6 ask for specific comments on the NCI and EPA modified methods for estimating long-term probability of fish consumption and amount consumed distributions.

The approach requires two broad steps. First is obtaining food consumption and from these self-reported types and amounts, estimating the amount of fish consumed. These data also allow estimation of the short-term probability (likelihood) of fish consumption. Next is to model the likelihood and amount of fish consumed, as obtained from NHANES, in such a way that the parameters of interest for risk assessment, the long-term fish consumption probability or likelihood, and the distribution of fish consumption (intake) given reported consumption are estimable. These two components are then used to estimate usual fish consumption (intake) as a long-term mean. This approach is both practical and has historically been used by others.

***a. Please comment on methods for calculating fish consumption rates.***

The method used to estimate the amount of fish consumed using NHANES data and detailed recipe analysis is state of the science.

There is no discussion in the report about the uncertainties associated with the fish proportions associated with each food code presented in Appendix B. In addition, the uncertainties associated with percent moisture loss for each processing method in Table 4 are not discussed or provided. In the future, if someone was interested in understanding how variation in fish proportions in foods or moisture loss in processing methods impacts the usual fish consumption estimate (e.g. sensitivity analysis), it would be beneficial to have published standard errors of these key proportions. I do not know if standard errors are available from the original sources of these data.

***b. Please comment on the means for combining fish frequency data.***

The data needed for the NCI and EPA modified models is  $A_{ij}$ , the amount of fish consumed, in grams, reported in a 24-hour dietary recall. This amount can represent all fish and/or shellfish, or can represent some subset of fish groupings, tropic class, or habitat class (defined in Chapter 4, Sections 4.1-4.2). In this report, the food codes (recipes) were decomposed to provide the fish proportion of the food and multipliers to which are used to calculate total fish and fish/shellfish subsets. This is all straightforward.

The text does not describe how the multipliers in Appendix B are actually used. I had to work through the following example to understand these. An example like this should be placed in the report somewhere to help the reader interpret the column heading and the values therein.

Let's examine the first line of Table B-1, "Shrimp dip, cream cheese base." Assuming one gram of this recipe, we would have .262 grams of fish or shellfish. To adjust for moisture loss (25%), the .262 grams would be assumed to be 75% of what was originally there. Hence, the pre-processed amount of fish would be  $.262/.75=.349$  grams. This value (.349) is identical to the "Multiplier for total fish" so this column identified the amount of pre-processed fish in the recipe. I assume the .062 value for "Multiplier for marine fish" then indicates the amount of marine fish in the pre-processed recipe that produced one gram of final food. Since shrimp is the only fish in the recipe, we use the marine proportion for shrimp in Table 1 to assign 17.6 of the total fish to marine ( $.349 \times .176=.062$ ). And so on

***c. Please comment on the method used to apportion species.***

Overall, I have little to say about the apportionment of species other than the comment in Question 4b above on use of multipliers, and Question 2 comments for pages 8 and 11 about replication of “professional judgment.”

***Janet A. Tooze, Ph.D., M.P.H.***

The methodology for creating the dataset of fish consumption by individuals in NHANES from the FNDDS files for the 24-hour recall appears to be appropriate. The statistical methods used to estimate the distribution of the fish consumption dataset are not well-validated, and may produce biased estimates.

***a. Please comment on methods for calculating fish consumption rates.***

The methods for estimating the distribution of fish consumption are based on the modified EPA method. It appears that this method was created for this project to estimate the distribution of fish consumption in order to provide estimates of consumption more quickly than using the more time consuming NCI method. In order to do this, the authors made a number of simplifications to the method with respect to the transformation selected, the modeling of probability of consumption, the modeling of the consumption day amount, the simulation of the usual fish consumption, how subgroup estimates were derived, and the calculation of the confidence intervals. Although there are well-accepted methods for modeling repeated measures binomial data (including generalized linear mixed effects models, which the NCI method uses, and GEE), the report presents what appears to be an ad hoc approach that is not cited in the statistical literature, nor is well validated in this report. Although this method saves computing time, it appears that it may lead in some cases to biased estimates of fish consumption rates for the US population.

***b. Please comment on the means for combining fish frequency data.***

The methodology for extracting the reported amounts of fish consumed from the 24-hour recall using the FNDDS files appeared to be appropriate. With respect to the statistical methodology, it is not clear if (and how) the 30-day fish consumption frequency data from the questionnaire were used as a covariate in statistical models; this is an appropriate way to use this information, but it is not clear if it was used in this manner.

***c. Please comment on the method used to apportion species.***

The method used to apportion species appears to be appropriate based on the food codes and the supporting data presented in the report.

**Charge Question 5**

*Please comment on appropriateness of the models used for estimating fish consumption rates, focusing on both the "NCI method" and the "modified EPA method."*

- a. Is the EPA method clearly described and supported? Explain.*
- b. Are uncertainties in the EPA model identified and characterized? Explain.*

*Patricia M. Guenther, Ph.D., RD*

*a. Is the EPA method clearly described and supported? Explain.*

Defer to the statisticians.

*b. Are uncertainties in the EPA model identified and characterized? Explain.*

I believe so, but defer to the statisticians.

*Dale Hattis, Ph.D.*

*a. Is the EPA method clearly described and supported? Explain.*

Yes. The comparisons indicating comparable results for the modified EPA method and the NCI method build confidence. However, aside from leaving out some specific variables, I was not clear on the exact differences between the methods.

*b. Are uncertainties in the EPA model identified and characterized? Explain.*

They seem to be reasonably well identified, although a clearer summary would be helpful. The assumption of normality in the transformed parameters seems a reasonable approximation but the difference between the actual data and the distribution imposed by the normality assumption could be more explicitly shown to the reader to further build confidence in the method and results.

*Kenneth M. Portier, Ph.D.*

I would like to make a few remarks about the NCI method here since the specific sub questions focus on the EPA method. These comments relate to Section 4.4.2.

The first paragraph states that “The NCI method can be implemented using two SAS macros...” Does this mean that the reader can use this tool but for this report a different approach was used? Or does this mean that for this report the NCI method “was implemented” in SAS using two macros that can be obtained from the NCI? (But it doesn’t tell me how to get them... do I write the Director?)

In the second paragraph:

- The limits on  $k$  are not defined. What are the covariates? Are they all continuous, all categorical or mixed?
- It would be clearer if you specified that  $j=1$  for most individuals and only a few individuals have  $j=\{1, 2\}$ .
- Given that “The usual daily consumption is the weighted average of the weekday and weekend estimates” and given Friday is part of the weekend, the weights for this weighted average would be  $4/7 \times (\text{Weekday average}) + 3/7 \times (\text{Weekend average})$ . Is this correct? Unclear.
- What are the default starting values that NLMIXED uses to initiate its search (provide in a table or define how computed)? Are the MIXTRAN and DISTRIB macros to be provided in the report so that an informed user could examine this code to determine this? (issue of repeatability)
- $C_{ij}$  is never defined (assumed to be “indicator of consumption”).
- The  $\lambda$  is not defined (the Cox transformation parameter).
- The  $\pi_i$  are not defined as the person level effects for likelihood of consuming fish.
- The  $\alpha_{ij}$  are not defined as the person level effects for amount of fish consumed at the  $j$ th 24-hour recall.
- The  $\pi_{Xk}$  are not identified as the coefficients that relate covariates to likelihood of fish consumption.
- The  $\alpha_{Xk}$  are not identified as the coefficients that relate covariates to amount of fish consumption.
- Note it might be nice to indicate that in this model,  $C_{ij}$ ,  $\alpha_{ij}$  and  $\pi_i$  are all random effects, the rest of the parameters are fixed effects.

Note that  $P_{ij}$  is the probability of consuming fish in a 24-hour period. According to this model,  $0 < P_{ij} < 1$ .

*$P_{ij}$  can never be 0 or 1 for any individual which assumes there are no fish non-consumers in the fitted data. Since it is highly likely that this is not true, the model is not quite realistic for its given data.*

***a. Is the EPA method clearly described and supported? Explain.***

The description of the EPA method begins at the bottom of page 18. It would be better if the EPA method had its own section separate from the description of the NCI method.

First, I think it is very important to state in a way that the reader notices it, that from one method fit to one set of fish consumption data, all of the sub-population estimates are derived. That is, all of Table C-1 comes from one fit of the EPA method run applied to the total finfish and shellfish consumption data. The estimates of the model parameters obtained from the fit of the method to the data provide everything needed to compute all of these consumption distribution estimates. This tends to get lost in the report. This is important statistically because all of the data (for fish subset being run) are used to estimate the model parameters and, hence, all of the data are factored into subsequent confidence intervals. You aren't running fits to smaller and smaller datasets for subpopulations which would produce even wider confidence intervals.

The justification for simplifying the NCI method for parameter estimation is weak and I feel should be discussed in more detail. Some statistics on run times for the NCI method, run on a current model PC and used to estimate one fish consumption scenario, would likely be justification enough. Is the NCI method susceptible to running distributed on a computer grid (such as the World Community Grid - <http://www.worldcommunitygrid.org/>) where thousands of computers could be used to produce the needed results? If so, that weakens the need for a modified method.

The last paragraph on page 18 is actually a synopsis of the EPA method, used before you get into the formal details of the method. Rather than talk about what the SAS macro does, talk about the modification to the NCI method and then simply indicate that the approach has been implemented into a SAS macro called ??? (name never given) and available from ??? (location not provided).

You indicate the use of a “normal scores plot” (a q-norm plot I assume) as an aid to determining the initial lambda\* estimate (Box and Cox power transformation parameter). Exactly how is this done? Can you provide a reference to this approach? A good discussion and references to estimating the Box and Cox transformation parameter can be found in:

Piegorsch, Walter W. and A. John Bailer, 1997, *Statistics for Environmental Biology and Toxicology*, Chapman & Hall, London, GB, Pages 130-131

It might be clearer if you list the EPA modified procedure as a series of steps. (I did this to help me understand the method but suggest it might also help other readers.)

- Step 1; compute the four summary statistics for each individual.
- Step 2; fit the logistic regression model.
- Step 3; iteratively fit the constrained logit model to minimize a weighted Chi square statistic and estimate individual level effects for the probability of fish consumption.
- Step 4; estimate the correlation between person-level random effects by using the residuals from the probability model as a predictor in the amount sub-model. Fit the amount sub-model using only records from the first 24-hour recall.
- Step 5; estimate the within-person variance component.
- Step 6; estimate the person-level random effect variance.

The four equations found on the fifth line of page 19 should be stacked to be consistent with other equations. If you list these statistics vertically, you can add their “labels” to the right and remove the next two lines. Since  $j$  can at most be equal to 1 or 2, you are only averaging, summing or counting for a few individuals.

The statement “The person-level random effect is included by assuming the predicted logit when excluding the random effect is proportional to the predicted logit when including the random effect.” is not clear at all. It made more sense AFTER I look at equation 4 on page 19.

Ok, here is where I get confused. In equation 4 you have  $\log(P/(1-P))$  as the response in the logistic regression. But for this to work shouldn't the P be  $P_i$ ? But then in equation 5 you use  $P_i$  in the response and regress it against the logit of the  $P_i$ ? Is the critical element here that equation 4 is fit incorporating survey weights, whereas equation 5 does not use the weights? Please clarify.

Equation 5 basically says that the observed and (survey weighted) predicted  $P_i$  are proportional to each other and the residual is the individual level effects. This is not a particularly intuitive relationship and seems to be the key to why the EPA method would work. I think it is really important to motivate this step. Why would you expect this to work? How do you know that this results in normally distributed  $\pi_i$ ?

You write that "Calculation of standard errors requires: 1) calculation of replicate weights consistent with the NHANES survey design and strata and PSU variables; 2) running the macros using the full-sample weight and each replicate weight; and 3) combining the results to estimate the standard errors." I assume this is true for both the NCI and EPA method. I assume that these calculations occur each time SAS Proc SurveyReg is used. The reader needs to know or understand Proc SurveyReg to understand the importance of this quote. Another place a reference is needed.

***b. Are uncertainties in the EPA model identified and characterized? Explain.***

There is no place in the report where NCI or EPA method parameter estimates and their corresponding standard errors are displayed (uncertainty relates to parameter precision). Estimates and approximate standard errors must have been calculated for all model parameters – these would be required output from the statistical estimation routines. Not sure most readers would be interested in seeing these estimates in the body of the report, but since these estimates are important for the simulation of UFC these values should be available, either in an appendix or in an online file (repeatability issue again).

Nowhere is goodness of fit for either model discussed (prediction uncertainty). Do these models fit equally well for particular data? Since the methods predict two outcomes, probability of fish consumption (logistic regression) and amount of fish consumption (regular regression), you would need two tables. An adequate (generally accepted) goodness of fit statistic like the  $R^2$  for regular regression is not available for logistic regression. Reporting the final scaled deviance would allow comparison for the logistic regressions. Along with the number of parameters in the model, these statistics form the basis for many proposed goodness of fit statistics for generalized linear models and hence might be the minimum required fit information that would need reporting. There are similar issues with the Cox and Box transformed linear regression since the  $R^2$  statistic is actually a function of the lambda\* estimate. Still, reporting  $R^2$  values would allow some comparison.

Section 4.4.6 compares the predicted UFCR from the two fitted methods. This is not the same as the model fit which examines predictions to actual for a specific model and data set. Both the NCI and EPA methods might predict the observed data adequately and still differ in predicted UFCR values.

*Janet A. Tooze, Ph.D., M.P.H.*

***a. Is the EPA method clearly described and supported? Explain.***

As cited in the response to 4a, the EPA method is not well supported by the report. There are no citations to the statistical literature to support its use. There are no simulation studies to show that it will provide unbiased estimates, efficient estimates of usual intake (under the assumptions that the 24 hour recall is unbiased). It is described in the report, although some key details, such as how the BRR weights were created and used, are omitted, and the methods are not well justified.

***b. Are uncertainties in the EPA model identified and characterized? Explain.***

The statistical models used are described for estimating probability, amount, and the simulations. The statistical methods regarding the calculation of confidence intervals and BRR weights are not well described in the report. The number of simulations used to estimate the distribution (N=5 vs N=100 for NCI method) is not well justified. To fully identify and characterize this model would require a more extensive analysis with statistical simulations and comparison to the NCI method and other methods for estimating the distribution of usual intake for different scenarios of episodically consumed foods. Although estimating the SE for the percentiles is quite time consuming, taking 64 BRR runs per models, the percentile estimates (without SEs) are estimated from 1 run. The authors could have obtained these estimates for all the models and compared them to the point estimates from the modified method.

**Charge Question 6**

*Is the EPA method adequate for accomplishing the objective? Explain.*

*Patricia M. Guenther, Ph.D., RD*

It seems reasonable.

*Dale Hattis, Ph.D.*

Yes, it seems to be quite adequate based on the comparisons provided.

*Kenneth M. Portier, Ph.D.*

Adequacy here relates to the extent to which the EPA method suitably duplicates the NCI method results. Clearly the figures in the report indicate that on a distributional basis both methods seems to produce similar fish consumption distributions so to this extent the EPA method is adequate.

I still worry about the issue of fish never-consumers and how they are handled by both methods. Of course, from a risk assessment point of view, fish never-consumers are never exposed to the contaminants that might be found in fish and hence might be considered not part of risk picture. Still, when examining population risks, ignoring fish never-consumers in these methods results in risk being over-estimated (the risk distributions are shifted to the right).

*Janet A. Tooze, Ph.D., M.P.H.*

If the objective is to obtain an unbiased estimate of the distribution of the various types of fish consumption in the report, under the assumption that the 24-hour recall provides an unbiased estimate of fish consumption, then the EPA method does not appear to be adequate for accomplishing this objective. It is not fully validated, and the results in Section 5.3 indicate that it may be biased.

**Charge Question 7**

*Specifically in regards to the analysis:*

- a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.*
- b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?*

*Patricia M. Guenther, Ph.D., RD*

*a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.*

Not really. As stated above, the handling of the dietary intake data is unclear.

*b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?*

The procedures/methods for handling the dietary data are unclear.

*Dale Hattis, Ph.D.*

*a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.*

The national representativeness of the NHANES data is fully described, as is the sampling protocol and the use of the population weights. All of this seems appropriate.

*b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?*

Yes. Only, I think in introducing the body weight factor to allow better representation of the distributions of consumption controlled for this major variable.

*Kenneth M. Portier, Ph.D.*

I assume in my reply below that this question is specifically about Section 5.3 (and indirectly the material in Section 4.4.3) where the NCI method is compared to the EPA method (which is referred to only in this section as the Modified NCI method). To me, this section represents an analysis of the EPA method.

*a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.*

In Section 4.4.3, we are provided with the methodology for simulating UFC with the NCI and EPA methods. After reading this section, I had a number of unanswered questions.

The “modifications” listed in the three bullets at the bottom of page 20 really describe the objective of the simulation exercise – a desire to compare UFC for a “standard week” ignoring recall-to-recall and within person variability. I get this, but I am not sure WHY you might want to limit the comparison this way. Justification or motivation needed here?

Why 100 simulated values for each person? Optimal? Adequate? Just a number used for demonstration purposes (likely)? You fail to mention that you will be simulating fish consumption for every individual for which we have fish consumption data from NHANES. You could just have likely created a synthetic cohort of fish consumers as the basis for the simulation.

Oh! There is that 3/7 weight which just shows up here without explanation. See bullet 3 question 5.

You need to make clear that the model parameter estimated values used for the NCI method simulation are different from the model parameter estimated values used for the EPA method (another reason to report these estimates in a table somewhere). Similarly, the lambda values used in the back transformation,  $B_{U_i}$ , values may be different for the NCI and EPA methods.

The statement “This equation includes an adjustment with the within person variance in the fish consumption amount ( $\sigma_3^2$ ). This adjustment makes the untransformed fish consumption essentially unbiased compared to the original mean across the 24-hour recalls.” needs a reference at a minimum and maybe even some motivation for why this is even needed.

How often is a simulated  $T_{U_i} < -1/\lambda$ ? Does this happen more often for the EPA method?

OK, so 100  $Q_{U_i}$  and  $T_{U_i}$  are available for each individual. How do I interpret these values? Theoretically, an individual has only one true “long-term probability of fish consumption.” The average of the 100  $Q_{U_i}$ s is an estimate of this true value. Does this mean that the variance of these  $Q_{U_i}$ s is an estimate of the uncertainty in our estimate for individual  $i$ ? Same for the  $T_{U_i}$ . The first time I read the equation at the top of page 22 I thought that you were multiplying the mean  $Q_{U_i}$  with the mean  $T_{U_i}$  to get the UFC for individual  $i$ , but actually you are computing 100  $U_{U_i}$ s and then computing the mean (call it  $U_i$ ) of these values to get the UFC for individual  $i$ . Is this correct? Oh, wait, you use the NHANES survey weights in here, so clearly you are computing individual averages by method.

So, you DO NOT compare the  $U_{i\_NCI}$  to the  $U_{i\_EPA}$  but instead compare overall mean  $UFC_{NCI}$  to  $UFC_{EPA}$  and compare distributional tiles with a quantile-quantile plot. I understand that and to a certain extent it makes sense from a risk assessment point of view. What is important is that the methods simulate similar UFC distributions, overall and for strata. Still, for a model goodness of fit assessment, I would also be interested to see statistics/graphics that compared the  $U_{i\_NCI}$  to the  $U_{i\_EPA}$ . Doing this comparison will require some careful thought. In particular, a randomly simulated individual effect (for either probability of consumption or amount of consumption) might be generated once and used in the appropriate place for the different NCI and EPA methods to avoid the  $U_{i\_NCI}$  to the  $U_{i\_EPA}$  difference reflecting differences in random effect values.

***b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?***

I think the methodology used to compare the two methods is appropriate and makes sense for a tool focused to risk assessment. The methodology might be inadequate to aid understanding of whether the EPA method and NCI method produce similar estimated UFC for individuals with similar demographics.

***Janet A. Tooze, Ph.D., M.P.H.***

***a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.***

Further information could be given about the predictors used in each model. In Section 4.4.5, the report cites that “all significant predictors” were used, but no criterion for significance is given, and it is not clear which predictors were used in which models. Although Section 2.2.2 outlines that the 30-d fish consumption frequency data could be used in statistical models, it is not clear if these data were used in any models, as they are not included in the list of variables in Section 4.4.5. It is not clear if people were excluded if they were missing covariate data. Furthermore, the methodology for creating subgroup estimates by age, gender, geographic region, etc. is not described in the report. It is important to know if covariates were used to define subgroups, or if the models were stratified by subgroup.

***b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?***

I think it is appropriate to include all plausible 24-hour recall data from NHANES for this analysis, as long as there are no apparent data entry or recipe errors. The report did not detail whether any type of data cleaning was done.

**Charge Question 8**

*Are the results presented in the report understandable and appropriate for meeting the objectives of the project? Explain. If not, how could the presentation of the results be improved?*

*Patricia M. Guenther, Ph.D., RD*

Need to state in the text and tables that the results are uncooked amounts and for edible portion only if that is the case.

*Dale Hattis, Ph.D.*

The results as far as they go are presented reasonably. As indicated above, I would like to see further analysis of parameters relevant for risk assessment and singling out of particularly important results for risk assessment implications.

*Kenneth M. Portier, Ph.D.*

My responses to all of the other questions contain suggestions for improving the presentation. There are places where the material is not clear and the writing should be improved. There are a couple of places where material that should appear together, such as the background for the NCI method and the discussion of the method itself, are in separate chapters where they might be better presented as one.

*Janet A. Tooze, Ph.D., M.P.H.*

The results presented in the report appear to be understandable and appropriate to the task. I believe that the authors of the report presented what they were asked to do; however, I have concerns with the validity of the estimates produced.

**Charge Question 9**

*Are scientific uncertainties explained and are they appropriate? Explain.*

*Patricia M. Guenther, Ph.D., RD*

For the most part, yes, except as described above.

*Dale Hattis, Ph.D.*

Generally, yes. However, the key issue of within-person correlations of fish consumption appears to be based on just two days for each individual. This means that the degree of correlation of fish consumption on different days must be measured with some error. The degree of uncertainty in estimates of the within-person correlation probably should be discussed as it may tend to produce uncertainties in the allocation of variance between person-to-person differences and within-person differences. In addition to this, the report explains that there are reports of habitual fish consumption over a prior month. It would be good to see some explicit analysis of these data, or at least a clearer explanation of how these data contributed to the overall analysis.

*Kenneth M. Portier, Ph.D.*

I assume that this question is directed at Section 5.4 and my reply is focused on this section.

Section 5.4.1: How might the results have been changed if a different fisheries biologist been used? Was the variability of NOAA landings from year-to-year incorporated in this analysis?

Section 5.4.2: The first sentence seems to imply that the largest portion of the uncertainty in CI for the estimated distributional p-tiles (from the NCI method) comes from uncertainty in estimation of the within- and between- person variance components. Is this correct? Was this determined via a sensitivity analysis? Or was this determined by looking at the standard errors for the variance component estimates? It might be useful to expand on this since this has implications for future data needs (the need for more multi-day 24-hour recall records – something many EPA scientific review panels have asked for).

When you say “The model,” I suggest you use a more complete descriptor - “The NCI method.”

Section 5.4.3 (page 55): This paragraph is difficult to read because the phrase “the weighting” may not be clear to the reader. All the information is here, just improve the writing to be clearer of what the message is. An illustrative example of the issues at stake might help here.

Section 5.4.4: The statement “However, they generally collect data in northern counties in the summer and southern counties in the winter.” represents in my mind the biggest shortcoming of using these data for this analysis and the greatest potential for bias. I think this issue should also be discussed closer to the beginning of the report.

Section 5.4.5: OK except the label “Modified NCI Method” should be standardized to the “EPA Method.”

*Janet A. Tooze, Ph.D., M.P.H.*

Estimating usual fish consumption of specific species is a difficult task, and requires a number of assumptions in terms of data summary and analysis. The way in which the data were summarized appeared to be consistent with other studies and there was some discussion regarding the assumptions with respect to regions, seasonality, and habitat. From my knowledge of this area, these appeared to be appropriate. With respect to the statistical methodology, it appears that there are additional uncertainties that were not addressed to the degree that they could be (see my response to previous questions for details). It would be helpful to discuss the statistical methodology used in the previous report, to explain the discrepancies between the previous estimate of the 90<sup>th</sup> percentile of consumption compared to the new estimate.

**Charge Question 10**

*The data used in the analysis have been subdivided based on demographic and geographical characteristics of the respondents. Are the subsets of data sufficiently robust to characterize fish consumption within the subgroups for the purposes stated in the report? Please provide your response for each of the major subgroup categories included in the main body of the report.*

***Patricia M. Guenther, Ph.D., RD***

As stated in the report, it is preferable to estimate fish consumption for the subgroups using a statistical model, rather than the same fish consumption rates for everyone.

***Dale Hattis, Ph.D.***

I think so.

***Kenneth M. Portier, Ph.D.***

The stratification or subdivisions seem reasonable and justified. The categories seem to cover most of the fish consumption categories that would be needed for risk assessments.

Just a thought, not an action item: If I were to suggest one additional demographic factor it might be education level coded at two levels; "high school diploma/GED and below" and "some college and above." Education is highly correlated with income so most of the education effect is captured by the finer coded income factor. The non-Hispanic White category has the highest sample size and I wonder if it might be possible to break out a category of "Asian and Pacific Islander" and/or "Native American/Alaskan Native." These two later categories are likely to be higher consumers of fish but also, given the design of NHANES, are unlikely to be very well represented in the sample and not represented at all in many geographic regions.

***Janet A. Tooze, Ph.D., M.P.H.***

Table C-56 details the number reporting fish consumption on both 24-hour recalls by fish type. In general, one would want at least 50 participants per cell in order to estimate the variance components for between and within person variation. As mentioned previously, it is not clear exactly how the subgroup estimates were derived. If they were derived from covariates in one large model, it may be appropriate to assume the same ratio of between with within variance holds for the smaller subgroup. However, if the models are stratified by subgroup (which I do not think they were, but it is not completely clear), then the sample size of some of these subgroups would not be of sufficient size to produce stable estimates of variance components.

**V. INDIVIDUAL REVIEWER COMMENTS**

**Review By:**  
**Patricia M. Guenther, Ph.D., RD**

## Peer Review Comments on EPA's Draft Document *Fish Consumption Rates*

Patricia M. Guenther, Ph.D., RD  
Guenther Consulting

### I. GENERAL IMPRESSIONS

In general, the methods and procedures should be clear enough so that they could be independently produced; this is not the case for how the dietary data were handled.

It is not possible to judge the accuracy of the information presented because it is impossible to know exactly what types of fish and the exact amounts of fish that were consumed by the survey participants. One must assume that the reports of 24-hour dietary intake were accurate, precise, and unbiased; and this should be stated in the report.

The limitations of the standardized recipes used for mixed dishes were not mentioned. This probably is not an important factor because most fish are probably not consumed as part of a mixed dish; however, it should be mentioned.

It is not stated anywhere that the amounts presented in the tables are uncooked amounts of fish. How the cooked amounts reported by survey participants were converted to uncooked amounts is unclear. It is also unclear if the uncooked amounts are for the edible portion of fish or for the entire fish.

I leave it to the statisticians to decide if the statistical methods used are clear and sound; however, it does seem that the modified NCI method yielded results that are fit for use in terms of how close they are to estimates from the original NCI method.

### II. RESPONSE TO CHARGE QUESTIONS

***1. Is the document logical, clear and concise? Explain. If not, how could the document be improved ?***

In general, yes; however, the dietary data processing needs to be described more clearly.

***2. Were scientific and statistical assumptions explained and are they appropriate? Explain.***

Yes, the assumptions underlying the NCI method were well explained. However, the assumptions made about the standardized recipes in the FNDDS were not mentioned. A statement of the assumption that the reports of 24-hour dietary intake were accurate, precise, and unbiased is also missing.

***3. Has appropriate literature been cited? Explain. Are there publicly available, peer-reviewed papers that should be included? Explain.***

For the most part, yes. The Freedman paper is irrelevant to this analysis and should be omitted. It may be helpful to list Kipnis et al., 2009, "Modeling data with excess zeros and measurement

error: application to evaluating relationships between episodically consumed foods and health outcomes,” *Biometrics* 65, 1003–1010, because it demonstrates the usefulness of food frequency data as covariates (although for a different purpose).

**4. Is the methodology as presented and defined in the report scientifically appropriate for meeting the objectives of the project? Additionally and specifically:**

**a. Please comment on methods for calculating fish consumption rates.**

The modifications made to the NCI method seem satisfactory, but I defer to the statisticians.

**b. Please comment on the means for combining fish frequency data.**

If this refers to Section 2.2.2, then the methodology is appropriate.

**c. Please comment on the method used to apportion species.**

Reasonable.

**5. Please comment on appropriateness of the models used for estimating fish consumption rates, focusing on both the "NCI method" and the "modified EPA method."**

**a. Is the EPA method clearly described and supported? Explain.**

Defer to the statisticians.

**b. Are uncertainties in the EPA model identified and characterized? Explain.**

I believe so, but defer to the statisticians.

**6. Is the EPA method adequate for accomplishing the objective? Explain.**

It seems reasonable.

**7. Specifically in regards to the analysis:**

**a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.**

Not really. As stated above, the handling of the dietary intake data is unclear.

**b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?**

The procedures/methods for handling the dietary data are unclear.

**8. Are the results presented in the report understandable and appropriate for meeting the objectives of the project? Explain. If not, how could the presentation of the results be improved?**

Need to state in the text and tables that the results are uncooked amounts and for edible portion only if that is the case.

**9. Are scientific uncertainties explained and are they appropriate? Explain.**

For the most part, yes, except as described above.

**10. The data used in the analysis have been subdivided based on demographic and geographical characteristics of the respondents. Are the subsets of data sufficiently robust to characterize fish consumption within the subgroups for the purposes stated in the report? Please provide your response for each of the major subgroup categories included in the main body of the report.**

As stated in the report, it is preferable to estimate fish consumption for the subgroups using a statistical model, rather than the same fish consumption rates for everyone.

### **III. SPECIFIC OBSERVATIONS**

The following line numbers refer to the attached version of the report. It also includes editorial suggestions (track changes) for making the document clearer; suggestions made for tables apply to other tables in addition to where they appear.

Line 237 [page 3]—Add “Survey participants are not asked to provide detailed recipes for mixed dishes. For those, standard, default recipes are used.” This has implications since participants are not queried about the types of fish used in stews, sandwiches, etc. This is a limitation that should be acknowledged.

Lines 303-307 [page 5]—This paragraph should be edited as follows: “The USDA Food and Nutrient Database for Dietary Studies (FNDDS) is the underlying database used to code dietary intakes for NHANES. It is a database of foods, their nutrient values, and gram weight equivalents for various amounts of foods. For each new version of FNDDS, foods, gram weights, and nutrient values are reviewed and updated to reflect the U.S. food supply by incorporating new foods based on what is reported in the survey and updating existing entries.” The weights found in the FNDDS are not necessarily for “typical” portion sizes.

Lines 316-319 [page 5]—It should be explained in detail earlier in the document that the FNDDS contains standard recipes. How those recipes were used in this analysis should also be described.

Lines 433-436 [page 8]—These “groupings” are the unique food codes, right? Why not call them that? The term “food codes” is used elsewhere. Suggest instead, “When the raw 24-hr recall data are processed by NHANES, fish species reported are assigned food codes. The list below presents the food codes for fish that are specified in the FNDDS and the additional species that are included in each.”

Line 503 [page 10]—Smelt must have been reported before 2003; otherwise, the code would not exist. This should say instead, “[not reported in 2003-2010].”

Lines 520-521 [page 11]—This is unclear. Would it be correct to say, “For these groups, we used raw (uncoded) 24-hour recall files from NHANES from 2007-08 (which are not publically available, and the only cycle made available to us) and counted the number of times a species was reported”? If so, the text should be revised accordingly; if not, the procedure should be described more clearly.

Lines 614-625 [page 16]—This section is particularly unclear. It is unclear if the amounts of fish tabulated are cooked or uncooked. This should be specified. If they are uncooked, how were the cooked amounts from the NHANES data converted to uncooked amounts? These “adjustments” should be explained in detail. Furthermore, are these uncooked amounts of edible portion only, or are they uncooked amounts of whole fish? Do they include skin? Do they include bones?

Lines 614-615 [page 16]—Some fish are prepared and cooked by the consumer. Please explain the differences between “pre-processing,” commercial processing, and cooking by the consumer and how these were handled in the data processing.

Lines 621-622 [page 16]—Adjustment factors were applied to the proportions of what? Shouldn't they be applied to the gram amounts?

Lines 621-625 [page 16]—These factors are the percentages of moisture that is lost through processing. What is missing are the factors that were used to convert the cooked/processed fish, reported in NHANES, back to the uncooked/unprocessed form.

Tables—What does “Inc Ref” mean? Because these are population estimates, the last two rows in the income section of the tables should be combined into something like “Income unknown.”

**Review By:  
Dale Hattis, Ph.D.**

## Peer Review Comments on EPA's Draft Document *Fish Consumption Rates*

**Dale Hattis, Ph.D.**

Clark University

### I. GENERAL IMPRESSIONS

This is a very good piece of work, applying very sophisticated statistical methods to the available data. However, it could be improved by adding a discussion chapter that analyzes and summarizes the findings relevant to risk assessment. I have done some preliminary analysis of geometric means and geometric standard deviations for total fish consumption from probability plots of the percentile information (see table on the next page.) Using this kind of analysis, the reader could be informed, for example that among racial groups, the "other race" category stands out as having higher overall fish consumption than other races. I assume this is due to the inclusion of Native Americans in that group, some of whom are subsistence fishers and are particularly at risk for high consumption of locally-caught fish and shellfish. It is also of interest that women of child-bearing age have slightly smaller geometric mean consumption but a greater apparent interindividual variability in consumption than other age/sex groups. Another aspect that could be improved would be to provide an additional set of data tables in which the dependent variable was not raw grams consumed per day per person, but grams consumed per kilogram of body weight. This could be readily done using the same methodology because the NHANES data include individual body weights. Finally, I think it would be helpful to show calculations of geometric standard deviations by the various breakdowns in the detailed tables so that the reader could appreciate (1) which groups have more or less variability in fish consumption and (2) so that comparisons could be made to long-term biomarkers of fish consumption, such as methylmercury and PCB blood concentration distributions. These latter statistics may be in part available from other measurements in the NHANES data. In addition, I published some older data on these variables:

Hattis, D. and Burmaster, D. E. "Assessment of Variability and Uncertainty Distributions for Practical Risk Analyses" Risk Analysis, Vol. 14, pp. 713-730, 1994.

**Table of Results of Lognormal Fitting to the Consumption Percentiles for All Fish  
(Based on Data from Table 6a)**

Group	Geom Mean (g/day)	Geom. Std Dev.
All adults	14.61	2.247
Males	17.02	2.216
Females	13.03	2.216
Women 13-49	9.66	2.512
21-35	11.56	2.498
35 - < 50	14.62	2.172
50-<65	20.33	2.025
65+ yrs	13.21	2.218
Non-Hisp White	13.67	2.231
Non-His Black	16.78	2.090
Other Race	27.39	2.044

## II. RESPONSE TO CHARGE QUESTIONS

**1. Is the document logical, clear and concise? Explain. If not, how could the document be improved ?**

Yes. However, it could go into more detail for the non-statistician on the choices of distributional methods. Overall these seem reasonable, and the comment that there is very little difference between log-logistic and lognormal distributions is helpful. It might also be helpful to explain, if it is true, that the logistic distributions were selected for modeling because of greater mathematical tractability than lognormals.

**2. Were scientific and statistical assumptions explained and are they appropriate? Explain.**

The statistical assumptions were described but the reasoning underlying them could have been more fully explained (see previous comment).

**3. Has appropriate literature been cited? Explain. Are there publicly available, peer-reviewed papers that should be included? Explain.**

These might be cited for background and for the distributions of exposure to seafood-borne contaminants:

Hattis, D. and Burmaster, D. E. "Assessment of Variability and Uncertainty Distributions for Practical Risk Analyses" Risk Analysis, Vol. 14, pp. 713-730, 1994.

Hattis, D., "Using Indicator Information for Managing Risks," Chapter 14 in: Environmental Indicators and Shellfish Safety, C. R. Hackney and M. D. Pierson, eds., Chapman & Hall, New York, pp. 364-380, 1993.

Ahmed, F. E., Hattis, D., Wolke, R. E., and Steinman, D., "Human Health Risks Due to Consumption of Chemically Contaminated Fishery Products," *Environ. Health Perspect.*, Vol. 101 (Suppl. 3), pp. 297-302, 1993

Probably there are other more recent references that would be appropriate for similar reasons.

***4. Is the methodology as presented and defined in the report scientifically appropriate for meeting the objectives of the project? Additionally and specifically:***

Yes, except that for understanding dosage distributions. I think it would be helpful to calculate fish consumption per unit body weight per day in addition to raw fish consumption per day.

***a. Please comment on methods for calculating fish consumption rates.***

These seem reasonable and generally appropriate.

***b. Please comment on the means for combining fish frequency data.***

As far as I could tell, the authors also seem to have made reasonable choices here.

***c. Please comment on the method used to apportion species.***

Seems OK.

***5. Please comment on appropriateness of the models used for estimating fish consumption rates, focusing on both the "NCI method" and the "modified EPA method."***

***a. Is the EPA method clearly described and supported? Explain.***

Yes. The comparisons indicating comparable results for the modified EPA method and the NCI method build confidence. However, aside from leaving out some specific variables, I was not clear on the exact differences between the methods.

***b. Are uncertainties in the EPA model identified and characterized? Explain.***

They seem to be reasonably well identified, although a clearer summary would be helpful. The assumption of normality in the transformed parameters seems a reasonable approximation but the difference between the actual data and the distribution imposed by the normality assumption could be more explicitly shown to the reader to further build confidence in the method and results.

***6. Is the EPA method adequate for accomplishing the objective? Explain.***

Yes, it seems to be quite adequate based on the comparisons provided.

**7. Specifically in regards to the analysis:**

***a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.***

The national representativeness of the NHANES data is fully described, as is the sampling protocol and the use of the population weights. All of this seems appropriate.

***b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?***

Yes. Only, I think in introducing the body weight factor to allow better representation of the distributions of consumption controlled for this major variable.

***8. Are the results presented in the report understandable and appropriate for meeting the objectives of the project? Explain. If not, how could the presentation of the results be improved?***

The results as far as they go are presented reasonably. As indicated above, I would like to see further analysis of parameters relevant for risk assessment and singling out of particularly important results for risk assessment implications.

***9. Are scientific uncertainties explained and are they appropriate? Explain.***

Generally, yes. However, the key issue of within-person correlations of fish consumption appears to be based on just two days for each individual. This means that the degree of correlation of fish consumption on different days must be measured with some error. The degree of uncertainty in estimates of the within-person correlation probably should be discussed as it may tend to produce uncertainties in the allocation of variance between person-to-person differences and within-person differences. In addition to this, the report explains that there are reports of habitual fish consumption over a prior month. It would be good to see some explicit analysis of these data, or at least a clearer explanation of how these data contributed to the overall analysis.

***10. The data used in the analysis have been subdivided based on demographic and geographical characteristics of the respondents. Are the subsets of data sufficiently robust to characterize fish consumption within the subgroups for the purposes stated in the report? Please provide your response for each of the major subgroup categories included in the main body of the report.***

I think so.

### III. SPECIFIC OBSERVATIONS

Page	Paragraph	Comment or Question
17	2	I had to look up what a logit distribution was. A clearer mathematical description of what this is in general and why it was selected would be helpful. <b>From Wikipedia, <math>\text{logit}(P) = \log(P/(1-P)) = -\log(1/p - 1)</math></b>
17	3	Similarly, the Box-Cox distribution should be explained and the why of the choice of this transformation described. Also, nowhere is there a presentation of which lambdas (power numbers) were indicated by the data. This could be done in an appendix.
20	1 <sup>st</sup> bullet	“The predicted values reflect a standard week (3 weekend days and 4 weekday days) rather than the distribution of weekday and weekend recalls in the data.” It seems odd to describe a “standard week” in this way, rather than one with 2 weekend days and 5 weekday days. The why of this choice needs to be explained, and perhaps there should be a brief description of how much difference this makes in the results.
23	2	The description of the age groups in this paragraph makes no mention of the 1-<3 age group included in Table 5. It seems to me this age group should be added to the description or the reader will wonder why children under age 3 are not covered.
C-1		The tables in this appendix should give the units (g/day).

**Review By:**  
**Kenneth M. Portier, Ph.D.**

## Peer Review Comments on EPA's Draft Document *Fish Consumption Rates*

**Kenneth M. Portier, Ph.D.**  
America Cancer Society

### I. GENERAL IMPRESSIONS

Overall, I find the report readable, stays on topic and comprehensive. There are very few areas needing major revision and the writing is clear and concise with very, very few spelling errors.

This said, I do see an alternate way of reorganizing the information in Chapter 4 to improve flow and understanding (see responses to charge questions 1 and 3 specifically).

### II. RESPONSE TO CHARGE QUESTIONS

*1. Is the document logical, clear and concise? Explain. If not, how could the document be improved ?*

I found the document logically ordered and the writing clear and concise but confusing in a couple of places.

The document defines its objective in the Background section and identifies the major data source in Chapter 2.

Chapter 3 introduces the NCI method, which is again described in Sections 4.4.1 and 4.4.2. Not certain why one even needs Chapter 3 since the material in Chapter 3 might be better as a background section in Chapter 4 (or a new Statistical Methods Chapter).

Chapter 4 combines a number of “methods” that could very easily comprise their own chapters. The methods discussion around habitat apportionment (Section 4.1) and trophic level assignment (section 4.2) could be combined in one chapter describing how fish-related characteristics are used in estimating (stratified) consumption rates. The specific comments to Question 2 suggest some ways that these Sections (or new Chapter) might be better organized. In particular, organizing the apportionment discussion around the “rules” and data sources used in apportionment would improve understanding.

Section 4.3 on “Extracting reported amounts of fish consumed” could be a part of Chapter 2 since it really describes how the FNDDS files were processed to find food codes containing finfish and shellfish, hence it tells us in more detail what NHANES data were actually used.

Section 4.4 (Statistical Methods) deserves its own chapter (called Statistical Methods) since it contains the key discussions of the NCI method for estimation of fish consumption and described the modifications of this approach that constitutes the “EPA method.” This discussion could benefit from a short discussion relating sample size to estimate uncertainty to help answer the question of “How many observations are needed to estimate consumption to a specified level of precision?”

Chapter 5 (Results) can benefit from more discussion of model goodness of fit.

Overall, there is a need to standardize labels. In the report I find references to the “NCI method,” the “NCI model,” the “EPA model,” the “EPA approach,” the “EPA method,” the “Modified NCI Method” (page 22) and in the Figures, the “Westat Modified NCI Method.” It initially was difficult to know how many “methods” were really under consideration. Was it two or three? Only after one reads Chapter 4 do you realize there are only two “methods,” with two “models” for each method, one for probability of fish consumption and one for amount of fish consumed. I will refer to the NCI and the EPA “methods” in my remarks. Occasionally, I will refer to the model for estimating the probability of fish consumption and the model for amount of fish consumed for specific methods. There are also two “methods” for simulating UFC based on the fitted NCI or EPA method estimated parameters and associated models.

Additional suggestions for report improvement can be found in my replies to the remaining questions.

***2. Were scientific and statistical assumptions explained and are they appropriate? Explain.***

I did not find any specific sections discussing scientific or statistical assumptions in the report. Scientific and statistical assumptions seem to be discussed as needed throughout the document. I think it is appropriate that it be done this way.

Further, discussion of assumptions is needed in a number of places as outlined below.

Page 1: We are told that the current default fish consumption rate (FCR) used by OW are the 90<sup>th</sup> and 99<sup>th</sup> percentile estimates from the freshwater and estuarine fish consumption distributions computed from the CSFII. When you get to the bottom of Page 2 you find that we will actually be provided with “the UFCR estimates and 95 % CI of the mean and the 25th, 50th, 75th, 90th, 95th, 97th, and 99th percentiles.” There is no discussion (or justification) for why these particular percentiles (probably to illustrate the right tail of the consumption distribution which is where risk assessment interest is greatest). Why not also provide 5%-tiles up to 95% and illustrate the whole distribution?

Page 1: It is stated that “As fish consumption may have changed over the past decade...” What is the evidence for this as a reasonable assumption on which to justify the effort of creating new estimates? [One or a couple of references to current studies, popular reports, NOAA landings values, etc. would satisfy this need.]

Page 1: Reference is made to the NCI method. Have other methods been proposed but rejected?

Page 1: It is stated that “The calculation using the NCI Method are very time consuming.” It is assumed that either: 1) EPA does not have the time to make these calculations or 2) EPA cannot find the computational power to makes these calculations in a reasonable amount of time. I don't find this discussed anywhere. Acceptance of this assumption is key to justifying the development and use of the EPA modified method.

Page 2: Estimates are desired for 18 different categories of fish. It is assumed that each category is important to some entity. Nowhere is there discussion as to why these categories specifically are chosen.

Page 3: Chapter 2 discusses the NHANES as a quality source of finfish and shellfish consumption for the general US population. Are we to assume that this is the only source of such data? A discussion of other potential sources for fish consumption data and why the NHANES was used is needed.

Page 5: The FNDDS is discussed in general (here, but in more detail in Section 4.3), but the “science” behind this database merits at least a paragraph. This database is used in the critical step of translating what is eaten (a menu item) to how much fish is consumed.

Page 7: The scientific and statistical assumptions of the NCI method are covered in Question 4.

Page 8: While “The assignments of species were completed by a fisheries biologist” it is not clear what assumptions and/or rules were employed in this assignment. If I were to employ a different fisheries biologist, would that individual come up with the same habitat apportionment? By providing insight into the assumptions and rules used by the fisheries biologist, we are better able to ensure repeatability (a scientific method characteristic) to this process. The “decisions” listed in the four bullets are actually some of the “rules” used by the fisheries biologist in the assignment. Are these all of the rules? It is clear that NOAA landings data factor into these “rules” (Section 4.1.2). In addition, the final rule is “that unspecified fish consumed was assigned the overall average habitat apportionment of all species reported consumed.” Is this reasonable?

Page 11: The statement, “No species in a group was assigned 0 percent based on a 0 count in the files, because it may be reported in another NHANES cycle,” requires additional clarification. What was the rule used to assign the value greater than zero?

Page 14: The fourth bullet on this page refers to “best professional judgment” and an example in catfish is described. Is catfish the only NHANES grouping that is impacted by this “rule”? Table 3 might be modified to indicate which fish allocation is impacted by “best professional judgment.” The scientific issue here is repeatability.

Pages 17-20: Assumptions for statistical methods presented in Question 5.

Page 20: (Section 4.4.3) It is not clear from the first sentence in this section whether the bulleted statements represent constraints on the NCI method estimates when used for simulating fish consumption or whether these statements are constraints under which the NCI method estimates are derived. I think these bullets are actually establishing the specific “reality” we are attempting to simulate using the information from the fitted NCI model.

Paragraphs 4 and 5 on page 54 (Section 5.4.2) initiate a discussion on model assumptions but doesn't really take it very far. In paragraph 4, you say "The validity of these assumptions can be discussed and, to some extent evaluated using data." but don't elaborate. Maybe a little elaboration is justified. At the bottom of page 54, you write "In our opinion, the NCI method makes reasonable assumptions and, given the assumptions, has adequate sample size to provide estimates with little bias relative to the confidence interval width." I personally tend to agree with the report on this, but I suggest giving the reader a little more, especially about the reasonableness of the method assumptions.

The issue of how fish never-consumers are handled is never addressed:

*One issue that is not addressed in the report impacts how the results of this study are used in a population risk assessments when the population consists of a fraction of individuals who, for personal reasons, never eat fish. Estimates of US residents who self-report as vegetarian or vegan range (not fish consumers) from a low of about 2.5% to a high of about 13.7% of the population (see [http://en.wikipedia.org/wiki/Vegetarianism\\_in\\_the\\_United\\_States#USA](http://en.wikipedia.org/wiki/Vegetarianism_in_the_United_States#USA) for details).*

*The NCI and EPA methods seem to assume that every individual who provides data via the NHANES 24-hour or 30-day surveys has a positive probability of consuming fish over the covered time period. In statistical jargon, they assume an underlying continuous distribution of consumption. With this assumption, for any individual if we were able to effectively record consumption for a long enough period of time, every individual would be observed eating fish at least once in that time period. The reality is that the underlying fish consumption distribution is a mixture distribution with a positive probability of fish non-consumption (of say  $p=.025$  to  $.137$ ) and one minus this probability of consumption.*

*The problem lies in that the NHANES survey does not have a question that identifies individuals who would "never eat fish," hence it does not allow us to easily split out "fish consumers" from "fish non-consumers". The individuals who report no fish consumption are a mixture of "never consumers" and "low likelihood consumers." The NCI method estimate of the probability of fish consumption in a 24-hour period essentially uses one probability for the mixture. This issue is not a problem at the estimation phase but does come up when the estimated model is used to simulate an individual's long-term probability of fish consumption. The equations on page 21 suggest that the long-term probability of fish consumption ( $Q_{Uj}$ ) will always be greater than zero (distribution is assumed Logistic, a continuous distribution, and hence the probability of a single value (0) is zero.) But this model uses the estimated 24-hour consumption probability ( $P$ , page 19) that includes the mixture. So, the problem is that the simulation is really about fish consumers, but one of the parameters used in the simulation ( $P$ , which affects the estimate of the other " $\pi_s$ ") represents both consumers and non-consumers. The ultimate result is that the percentiles for the fish consumption distribution are all likely to be over estimates which conveniently adds a conservative lean to population risk assessments.*

**3. Has appropriate literature been cited? Explain. Are there publicly available, peer-reviewed papers that should be included? Explain.**

A number of places need citations.

Page 1: References to justify the statement that fish consumption rates have been changing. Reference to increasing NOAA landings values might suffice here, although looking at NMFS total landings data suggests decreased tonnage from 1993 to 2012 (4.6 MT in 1993 to 4.2MT in 2012).

Page 8: The second bullet incorporates a quote but there is no indication where this quote comes from. (I assume this is part of the Clean Water Act, but not certain.) This statement also requires further clarification since the current sentence structure is complex making it difficult to understand.

Page 13: The two references used for tropic level assignments are EPA technical reports from 2002 and 2003. Have these documents been examined recently to ensure they continue to describe “best science?”

Page 22: Section 4.4.4 - This section should be significantly increased. A reference for method of computing confidence limits on the log scale and back transforming is provided below. The method for using full sample weights and replicate weights with NHANES data can be complicated for the uninitiated. I don't think the NHANES web site provides sufficient information for the reader of this report to understand how weights should (are) used in the analysis. The design effects discussion in the NCHS 2005 reference given is inadequate for this. A reference or two here, and/or a short discussion in an appendix, would ensure that future readers are not confused on what was done here. The four steps for computing the CIS really need to be described in greater detail. Again, the issue here is ensuring that readers are able to replicate the report results (scientific validity).

Gilbert, Richard O., *Statistical Methods for Environmental Pollution Monitoring*, 1987, Van Nostrand Reinhold, NY, NY, Chapter 13 Characterizing Lognormal Populations, pp 164-176.

Page 22: A reference/web link for the MIXTRAN macro is needed.

**4. Is the methodology as presented and defined in the report scientifically appropriate for meeting the objectives of the project? Additionally and specifically:**

I will assume that this question is asking about the methodology of processing the NHANES data to obtain short-term fish consumption likelihood and amount. Questions 5 and 6 ask for specific comments on the NCI and EPA modified methods for estimating long-term probability of fish consumption and amount consumed distributions.

The approach requires two broad steps. First is obtaining food consumption and from these self-reported types and amounts, estimating the amount of fish consumed. These data also allow estimation of the short-term probability (likelihood) of fish consumption. Next is to model the likelihood and amount of fish consumed, as obtained from NHANES, in such a way that the parameters of interest for risk assessment, the long-term fish consumption probability or likelihood, and the distribution of fish consumption (intake) given reported consumption are estimable. These two components are then used to estimate usual fish consumption (intake) as a long-term mean. This approach is both practical and has historically been used by others.

***a. Please comment on methods for calculating fish consumption rates.***

The method used to estimate the amount of fish consumed using NHANES data and detailed recipe analysis is state of the science.

There is no discussion in the report about the uncertainties associated with the fish proportions associated with each food code presented in Appendix B. In addition, the uncertainties associated with percent moisture loss for each processing method in Table 4 are not discussed or provided. In the future, if someone was interested in understanding how variation in fish proportions in foods or moisture loss in processing methods impacts the usual fish consumption estimate (e.g. sensitivity analysis), it would be beneficial to have published standard errors of these key proportions. I do not know if standard errors are available from the original sources of these data.

***b. Please comment on the means for combining fish frequency data.***

The data needed for the NCI and EPA modified models is  $A_{ij}$ , the amount of fish consumed, in grams, reported in a 24-hour dietary recall. This amount can represent all fish and/or shellfish, or can represent some subset of fish groupings, tropic class, or habitat class (defined in Chapter 4, Sections 4.1-4.2). In this report, the food codes (recipes) were decomposed to provide the fish proportion of the food and multipliers to which are used to calculate total fish and fish/shellfish subsets. This is all straightforward.

The text does not describe how the multipliers in Appendix B are actually used. I had to work through the following example to understand these. An example like this should be placed in the report somewhere to help the reader interpret the column heading and the values therein.

Let's examine the first line of Table B-1, "Shrimp dip, cream cheese base." Assuming one gram of this recipe, we would have .262 grams of fish or shellfish. To adjust for moisture loss (25%), the .262 grams would be assumed to be 75% of what was originally there. Hence, the pre-processed amount of fish would be  $.262/.75=.349$  grams. This value (.349) is identical to the "Multiplier for total fish" so this column identified the amount of pre-processed fish in the recipe. I assume the .062 value for "Multiplier for marine fish" then indicates the amount of marine fish in the pre-processed recipe that produced one gram of final food. Since shrimp is the only fish in the recipe, we use the marine proportion for shrimp in Table 1 to assign 17.6 of the total fish to marine ( $.349 \times .176=.062$ ). And so on...

*c. Please comment on the method used to apportion species.*

Overall, I have little to say about the apportionment of species other than the comment in Question 4b above on use of multipliers, and Question 2 comments for pages 8 and 11 about replication of “professional judgment.”

*5. Please comment on appropriateness of the models used for estimating fish consumption rates, focusing on both the "NCI method" and the "modified EPA method."*

I would like to make a few remarks about the NCI method here since the specific sub questions focus on the EPA method. These comments relate to Section 4.4.2.

The first paragraph states that “The NCI method can be implemented using two SAS macros...” Does this mean that the reader can use this tool but for this report a different approach was used? Or does this mean that for this report the NCI method “was implemented” in SAS using two macros that can be obtained from the NCI? (But it doesn’t tell me now to get them... do I write the Director?)

In the second paragraph:

- The limits on  $k$  are not defined. What are the covariates? Are they all continuous, all categorical or mixed?
- It would be clearer if you specified that  $j=1$  for most individuals and only a few individuals have  $j=\{1, 2\}$ .
- Given that “The usual daily consumption is the weighted average of the weekday and weekend estimates” and given Friday is part of the weekend, the weights for this weighted average would be  $4/7 \times (\text{Weekday average}) + 3/7 \times (\text{Weekend average})$ . Is this correct? Unclear.
- What are the default starting values that NLMIXED uses to initiate its search (provide in a table or define how computed)? Are the MIXTRAN and DISTRIB macros to be provided in the report so that an informed user could examine this code to determine this? (issue of repeatability)
- $C_{ij}$  is never defined (assumed to be “indicator of consumption”).
- The  $\lambda$  is not defined (the Cox transformation parameter).
- The  $\pi_i$  are not defined as the person level effects for likelihood of consuming fish.
- The  $\alpha_{ij}$  are not defined as the person level effects for amount of fish consumed at the  $j$ th 24-hour recall.
- The  $\pi_{Xk}$  are not identified as the coefficients that relate covariates to likelihood of fish consumption.
- The  $\alpha_{Xk}$  are not identified as the coefficients that relate covariates to amount of fish consumption.
- Note it might be nice to indicate that in this model,  $C_{ij}$ ,  $\alpha_{ij}$  and  $\pi_i$  are all random effects, the rest of the parameters are fixed effects.

Note that  $P_{ij}$  is the probability of consuming fish in a 24-hour period. According to this model,  $0 < P_{ij} < 1$ .

$P_{ij}$  can never be 0 or 1 for any individual which assumes there are no fish non-consumers in the fitted data. Since it is highly likely that this is not true, the model is not quite realistic for its given data.

**a. Is the EPA method clearly described and supported? Explain.**

The description of the EPA method begins at the bottom of page 18. It would be better if the EPA method had its own section separate from the description of the NCI method.

First, I think it is very important to state in a way that the reader notices it, that from one method fit to one set of fish consumption data, all of the sub-population estimates are derived. That is, all of Table C-1 comes from one fit of the EPA method run applied to the total finfish and shellfish consumption data. The estimates of the model parameters obtained from the fit of the method to the data provide everything needed to compute all of these consumption distribution estimates. This tends to get lost in the report. This is important statistically because all of the data (for fish subset being run) are used to estimate the model parameters and, hence, all of the data are factored into subsequent confidence intervals. You aren't running fits to smaller and smaller datasets for subpopulations which would produce even wider confidence intervals.

The justification for simplifying the NCI method for parameter estimation is weak and I feel should be discussed in more detail. Some statistics on run times for the NCI method, run on a current model PC and used to estimate one fish consumption scenario, would likely be justification enough. Is the NCI method susceptible to running distributed on a computer grid (such as the World Community Grid - <http://www.worldcommunitygrid.org/>) where thousands of computers could be used to produce the needed results? If so, that weakens the need for a modified method.

The last paragraph on page 18 is actually a synopsis of the EPA method, used before you get into the formal details of the method. Rather than talk about what the SAS macro does, talk about the modification to the NCI method and then simply indicate that the approach has been implemented into a SAS macro called ??? (name never given) and available from ??? (location not provided).

You indicate the use of a "normal scores plot" (a q-norm plot I assume) as an aid to determining the initial lambda\* estimate (Box and Cox power transformation parameter). Exactly how is this done? Can you provide a reference to this approach? A good discussion and references to estimating the Box and Cox transformation parameter can be found in:

Piegorsch, Walter W. and A. John Bailer, 1997, *Statistics for Environmental Biology and Toxicology*, Chapman & Hall, London, GB, Pages 130-131

It might be clearer if you list the EPA modified procedure as a series of steps. (I did this to help me understand the method but suggest it might also help other readers.)

- Step 1; compute the four summary statistics for each individual.
- Step 2; fit the logistic regression model.

- Step 3; iteratively fit the constrained logit model to minimize a weighted Chi square statistic and estimate individual level effects for the probability of fish consumption.
- Step 4; estimate the correlation between person-level random effects by using the residuals from the probability model as a predictor in the amount sub-model. Fit the amount sub-model using only records from the first 24-hour recall.
- Step 5; estimate the within-person variance component.
- Step 6; estimate the person-level random effect variance.

The four equations found on the fifth line of page 19 should be stacked to be consistent with other equations. If you list these statistics vertically, you can add their “labels” to the right and remove the next two lines. Since  $j$  can at most be equal to 1 or 2, you are only averaging, summing or counting for a few individuals.

The statement “The person-level random effect is included by assuming the predicted logit when excluding the random effect is proportional to the predicted logit when including the random effect.” is not clear at all. It made more sense AFTER I look at equation 4 on page 19.

Ok, here is where I get confused. In equation 4 you have  $\log(P/(1-P))$  as the response in the logistic regression. But for this to work shouldn't the  $P$  be  $P_i$ ? But then in equation 5 you use  $P_i$  in the response and regress it against the logit of the  $P_i$ ? Is the critical element here that equation 4 is fit incorporating survey weights, whereas equation 5 does not use the weights? Please clarify.

Equation 5 basically says that the observed and (survey weighted) predicted  $P_i$  are proportional to each other and the residual is the individual level effects. This is not a particularly intuitive relationship and seems to be the key to why the EPA method would work. I think it is really important to motivate this step. Why would you expect this to work? How do you know that this results in normally distributed  $\pi_i$ ?

You write that “Calculation of standard errors requires: 1) calculation of replicate weights consistent with the NHANES survey design and strata and PSU variables; 2) running the macros using the full-sample weight and each replicate weight; and 3) combining the results to estimate the standard errors.” I assume this is true for both the NCI and EPA method. I assume that these calculations occur each time SAS Proc SurveyReg is used. The reader needs to know or understand Proc SurveyReg to understand the importance of this quote. Another place a reference is needed.

***b. Are uncertainties in the EPA model identified and characterized? Explain.***

There is no place in the report where NCI or EPA method parameter estimates and their corresponding standard errors are displayed (uncertainty relates to parameter precision). Estimates and approximate standard errors must have been calculated for all model parameters – these would be required output from the statistical estimation routines. Not sure most readers would be interested in seeing these estimates in the body of the report, but since these estimates are important for the simulation of UFC these values should be available, either in an appendix or in an online file (repeatability issue again).

Nowhere is goodness of fit for either model discussed (prediction uncertainty). Do these models fit equally well for particular data? Since the methods predict two outcomes, probability of fish consumption (logistic regression) and amount of fish consumption (regular regression), you would need two tables. An adequate (generally accepted) goodness of fit statistic like the  $R^2$  for regular regression is not available for logistic regression. Reporting the final scaled deviance would allow comparison for the logistic regressions. Along with the number of parameters in the model, these statistics form the basis for many proposed goodness of fit statistics for generalized linear models and hence might be the minimum required fit information that would need reporting. There are similar issues with the Cox and Box transformed linear regression since the  $R^2$  statistic is actually a function of the lambda\* estimate. Still, reporting  $R^2$  values would allow some comparison.

Section 4.4.6 compares the predicted UFCR from the two fitted methods. This is not the same as the model fit which examines predictions to actual for a specific model and data set. Both the NCI and EPA methods might predict the observed data adequately and still differ in predicted UFCR values.

**6. Is the EPA method adequate for accomplishing the objective? Explain.**

Adequacy here relates to the extent to which the EPA method suitably duplicates the NCI method results. Clearly the figures in the report indicate that on a distributional basis both methods seems to produce similar fish consumption distributions so to this extent the EPA method is adequate.

I still worry about the issue of fish never-consumers and how they are handled by both methods. Of course, from a risk assessment point of view, fish never-consumers are never exposed to the contaminants that might be found in fish and hence might be considered not part of risk picture. Still, when examining population risks, ignoring fish never-consumers in these methods results in risk being over-estimated (the risk distributions are shifted to the right).

**7. Specifically in regards to the analysis:**

I assume in my reply below that this question is specifically about Section 5.3 (and indirectly the material in Section 4.4.3) where the NCI method is compared to the EPA method (which is referred to only in this section as the Modified NCI method). To me, this section represents an analysis of the EPA method.

**a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.**

In Section 4.4.3, we are provided with the methodology for simulating UFC with the NCI and EPA methods. After reading this section, I had a number of unanswered questions.

The “modifications” listed in the three bullets at the bottom of page 20 really describe the objective of the simulation exercise – a desire to compare UFC for a “standard week” ignoring recall-to-recall and within person variability. I get this, but I am not sure WHY you might want to limit the comparison this way. Justification or motivation needed here?

Why 100 simulated values for each person? Optimal? Adequate? Just a number used for demonstration purposes (likely)? You fail to mention that you will be simulating fish consumption for every individual for which we have fish consumption data from NHANES. You could just have likely created a synthetic cohort of fish consumers as the basis for the simulation.

Oh! There is that 3/7 weight which just shows up here without explanation. See bullet 3 question 5.

You need to make clear that the model parameter estimated values used for the NCI method simulation are different from the model parameter estimated values used for the EPA method (another reason to report these estimates in a table somewhere). Similarly, the lambda values used in the back transformation,  $B_{Ui}$ , values may be different for the NCI and EPA methods.

The statement “This equation includes an adjustment with the within person variance in the fish consumption amount ( $\sigma_3^2$ ). This adjustment makes the untransformed fish consumption essentially unbiased compared to the original mean across the 24-hour recalls.” needs a reference at a minimum and maybe even some motivation for why this is even needed.

How often is a simulated  $T_{Ui} < -1/\lambda$ ? Does this happen more often for the EPA method?

OK, so 100  $Q_{Ui}$  and  $T_{Ui}$  are available for each individual. How do I interpret these values? Theoretically, an individual has only one true “long-term probability of fish consumption.” The average of the 100  $Q_{Ui}$ s is an estimate of this true value. Does this mean that the variance of these  $Q_{Ui}$ s is an estimate of the uncertainty in our estimate for individual  $i$ ? Same for the  $T_{Ui}$ . The first time I read the equation at the top of page 22 I thought that you were multiplying the mean  $Q_{ui}$  with the mean  $T_{ui}$  to get the UFC for individual  $i$ , but actually you are computing 100  $U_{Ui}$ s and then computing the mean (call it  $U_i$ ) of these values to get the UFC for individual  $i$ . Is this correct? Oh, wait, you use the NHANES survey weights in here, so clearly you are computing individual averages by method.

So, you DO NOT compare the  $U_{i\_NCI}$  to the  $U_{i\_EPA}$  but instead compare overall mean  $UFC_{NCI}$  to  $UFC_{EPA}$  and compare distributional tiles with a quantile-quantile plot. I understand that and to a certain extent it makes sense from a risk assessment point of view. What is important is that the methods simulate similar UFC distributions, overall and for strata. Still, for a model goodness of fit assessment, I would also be interested to see statistics/graphics that compared the  $U_{i\_NCI}$  to the  $U_{i\_EPA}$ . Doing this comparison will require some careful thought. In particular, a randomly simulated individual effect (for either probability of consumption or amount of consumption) might be generated once and used in the appropriate place for the different NCI and EPA methods to avoid the  $U_{i\_NCI}$  to the  $U_{i\_EPA}$  difference reflecting differences in random effect values.

***b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?***

I think the methodology used to compare the two methods is appropriate and makes sense for a tool focused to risk assessment. The methodology might be inadequate to aid understanding of whether the EPA method and NCI method produce similar estimated UFC for individuals with similar demographics.

***8. Are the results presented in the report understandable and appropriate for meeting the objectives of the project? Explain. If not, how could the presentation of the results be improved?***

My responses to all of the other questions contain suggestions for improving the presentation. There are places where the material is not clear and the writing should be improved. There are a couple of places where material that should appear together, such as the background for the NCI method and the discussion of the method itself, are in separate chapters where they might be better presented as one.

***9. Are scientific uncertainties explained and are they appropriate? Explain.***

I assume that this question is directed at Section 5.4 and my reply is focused on this section.

Section 5.4.1: How might the results have been changed if a different fisheries biologist been used? Was the variability of NOAA landings from year-to-year incorporated in this analysis?

Section 5.4.2: The first sentence seems to imply that the largest portion of the uncertainty in CI for the estimated distributional p-tiles (from the NCI method) comes from uncertainty in estimation of the within- and between- person variance components. Is this correct? Was this determined via a sensitivity analysis? Or was this determined by looking at the standard errors for the variance component estimates? It might be useful to expand on this since this has implications for future data needs (the need for more multi-day 24-hour recall records – something many EPA scientific review panels have asked for).

When you say “The model,” I suggest you use a more complete descriptor - “The NCI method.”

Section 5.4.3 (page 55): This paragraph is difficult to read because the phrase “the weighting” may not be clear to the reader. All the information is here, just improve the writing to be clearer of what the message is. An illustrative example of the issues at stake might help here.

Section 5.4.4: The statement “However, they generally collect data in northern counties in the summer and southern counties in the winter.” represents in my mind the biggest shortcoming of using these data for this analysis and the greatest potential for bias. I think this issue should also be discussed closer to the beginning of the report.

Section 5.4.5: OK except the label “Modified NCI Method” should be standardized to the “EPA Method.”

**10. The data used in the analysis have been subdivided based on demographic and geographical characteristics of the respondents. Are the subsets of data sufficiently robust to characterize fish consumption within the subgroups for the purposes stated in the report? Please provide your response for each of the major subgroup categories included in the main body of the report.**

The stratification or subdivisions seem reasonable and justified. The categories seem to cover most of the fish consumption categories that would be needed for risk assessments.

Just a thought, not an action item: If I were to suggest one additional demographic factor it might be education level coded at two levels; “high school diploma/GED and below” and “some college and above.” Education is highly correlated with income so most of the education effect is captured by the finer coded income factor. The non-Hispanic White category has the highest sample size and I wonder if it might be possible to break out a category of “Asian and Pacific Islander” and/or “Native American/Alaskan Native.” These two later categories are likely to be higher consumers of fish but also, given the design of NHANES, are unlikely to be very well represented in the sample and not represented at all in many geographic regions.

### III. SPECIFIC OBSERVATIONS

Page	Paragraph	Comment or Question
16	2	Adjustment factors “are also used” instead of “were also used” in the two reports. The reports exist today even though they were created in the past. Active writing style recommends the use of present tense where possible.
16	3	Sort alphabetically by Processing Method or numerically by Percent moisture. Current table uses neither. Recommend sort by % moisture.
18	5	In the discussion around lambda estimation, you talk about estimation being “consistent with the model,” but I think you mean “consistent with the data” and the assumption of normality (which is part of the model or method).
19	4 lines from bottom	Shouldn't this be 24-hour recall rather than 12-hour recall?

**Review By:**  
**Janet A. Tooze, Ph.D., M.P.H.**

## Peer Review Comments on EPA's Draft Document *Fish Consumption Rates*

**Janet A. Tooze, Ph.D., MPH**

Wake Forest School of Medicine

### **I. GENERAL IMPRESSIONS**

I found the layout of this report to be presented in a logical, clear, and concise manner. The classification of the fish groupings from the 24-hour recall data appeared to be done appropriately using the NHANES data as well as other sources. Being able to obtain the information from NHANES on geographical region is a strength. The tables are clearly presented and are provided for a broad range of fish type and subgroup. The document demonstrated a sound understanding of the NCI method. However, there are serious concerns about the validity of the estimates produced by the modified EPA method. In particular, this method makes a number of approximations to the NCI method, but it does not fully explore the implications of each of these approximations, nor does it fully justify the approximations that are made. Furthermore, details were lacking regarding some of the statistical methods including: validation of the modified EPA Method, construction of BRR weights, inclusion of covariates in models, and construction of subgroup estimates. From the report, it is not apparent that the time savings from making a number of approximations in the modified EPA method is worth the potential loss in bias and efficiency of the estimates produced. The dataset that was constructed of fish consumption for NHANES participants appeared to be developed making reasonable assumptions and I have no concerns about the dataset used. I am concerned that the statistical methods utilized to estimate the distribution of usual fish intake is not well justified, and could lead to biased estimates.

### **II. RESPONSE TO CHARGE QUESTIONS**

***1. Is the document logical, clear and concise? Explain. If not, how could the document be improved ?***

In general, the document is clear, logical, and concise. The document is logically organized in the order of presentation, and outlines all necessary sections of the study population, methods, and results. The results are clearly presented. There are some details lacking in the statistical analysis section (see questions 4 and 5).

***2. Were scientific and statistical assumptions explained and are they appropriate? Explain.***

The document demonstrates a thorough understanding of the NCI method and the assumptions that it makes. There are no concerns about the implementation of this method; however, it was only used to compare to the EPA method, not to make the estimates in the report. The authors used what they are calling the modified EPA method to produce the tables in this report, and the implications of the assumptions of this method are not as clearly described as the assumptions of the NCI method. In Section 5.4.2, the assumptions made and discussed are that of the NCI method; however, the modified NCI method is what is used in this report, and the assumptions that it makes should be addressed in this section, rather than that of the NCI method. It is not clear from this report that the authors understand what the implications of the assumptions of this

modified EPA method are. For example, the authors compare their method to the NCI method, and show that in some cases it provides higher estimates than the NCI method. However, it is not clear from the report why this is so, and what assumptions of their method lead to this potential bias.

***3. Has appropriate literature been cited? Explain. Are there publicly available, peer-reviewed papers that should be included? Explain.***

It appears that appropriate literature has been cited in this report, with the exception of the modified EPA method that is presented. No literature is cited to support the modified EPA method that is used for the estimates given in the table. It appears to be an ad hoc method that has not been peer reviewed.

***4. Is the methodology as presented and defined in the report scientifically appropriate for meeting the objectives of the project? Additionally and specifically:***

The methodology for creating the dataset of fish consumption by individuals in NHANES from the FNDDS files for the 24-hour recall appears to be appropriate. The statistical methods used to estimate the distribution of the fish consumption dataset are not well-validated, and may produce biased estimates.

***a. Please comment on methods for calculating fish consumption rates.***

The methods for estimating the distribution of fish consumption are based on the modified EPA method. It appears that this method was created for this project to estimate the distribution of fish consumption in order to provide estimates of consumption more quickly than using the more time consuming NCI method. In order to do this, the authors made a number of simplifications to the method with respect to the transformation selected, the modeling of probability of consumption, the modeling of the consumption day amount, the simulation of the usual fish consumption, how subgroup estimates were derived, and the calculation of the confidence intervals. Although there are well-accepted methods for modeling repeated measures binomial data (including generalized linear mixed effects models, which the NCI method uses, and GEE), the report presents what appears to be an ad hoc approach that is not cited in the statistical literature, nor is well validated in this report. Although this method saves computing time, it appears that it may lead in some cases to biased estimates of fish consumption rates for the US population.

***b. Please comment on the means for combining fish frequency data.***

The methodology for extracting the reported amounts of fish consumed from the 24-hour recall using the FNDDS files appeared to be appropriate. With respect to the statistical methodology, it is not clear if (and how) the 30-day fish consumption frequency data from the questionnaire were used as a covariate in statistical models; this is an appropriate way to use this information, but it is not clear if it was used in this manner.

***c. Please comment on the method used to apportion species.***

The method used to apportion species appears to be appropriate based on the food codes and the supporting data presented in the report.

***5. Please comment on appropriateness of the models used for estimating fish consumption rates, focusing on both the "NCI method" and the "modified EPA method."***

***a. Is the EPA method clearly described and supported? Explain.***

As cited in the response to 4a, the EPA method is not well supported by the report. There are no citations to the statistical literature to support its use. There are no simulation studies to show that it will provide unbiased estimates, efficient estimates of usual intake (under the assumptions that the 24 hour recall is unbiased). It is described in the report, although some key details, such as how the BRR weights were created and used, are omitted, and the methods are not well justified.

***b. Are uncertainties in the EPA model identified and characterized? Explain.***

The statistical models used are described for estimating probability, amount, and the simulations. The statistical methods regarding the calculation of confidence intervals and BRR weights are not well described in the report. The number of simulations used to estimate the distribution (N=5 vs N=100 for NCI method) is not well justified. To fully identify and characterize this model would require a more extensive analysis with statistical simulations and comparison to the NCI method and other methods for estimating the distribution of usual intake for different scenarios of episodically consumed foods. Although estimating the SE for the percentiles is quite time consuming, taking 64 BRR runs per models, the percentile estimates (without SEs) are estimated from 1 run. The authors could have obtained these estimates for all the models and compared them to the point estimates from the modified method.

***6. Is the EPA method adequate for accomplishing the objective? Explain.***

If the objective is to obtain an unbiased estimate of the distribution of the various types of fish consumption in the report, under the assumption that the 24-hour recall provides an unbiased estimate of fish consumption, then the EPA method does not appear to be adequate for accomplishing this objective. It is not fully validated, and the results in Section 5.3 indicate that it may be biased.

**7. Specifically in regards to the analysis:**

***a. Were sufficient information and explanations given that describes how the data were used and what criteria were used to determine the suitability of the data? Explain.***

Further information could be given about the predictors used in each model. In Section 4.4.5, the report cites that “all significant predictors” were used, but no criterion for significance is given, and it is not clear which predictors were used in which models. Although Section 2.2.2 outlines that the 30-d fish consumption frequency data could be used in statistical models, it is not clear if these data were used in any models, as they are not included in the list of variables in Section 4.4.5. It is not clear if people were excluded if they were missing covariate data. Furthermore, the methodology for creating subgroup estimates by age, gender, geographic region, etc. is not described in the report. It is important to know if covariates were used to define subgroups, or if the models were stratified by subgroup.

***b. Were these criteria adequate? Was the methodology appropriate? Explain. If not, how could the methodology could be improved?***

I think it is appropriate to include all plausible 24-hour recall data from NHANES for this analysis, as long as there are no apparent data entry or recipe errors. The report did not detail whether any type of data cleaning was done.

***8. Are the results presented in the report understandable and appropriate for meeting the objectives of the project? Explain. If not, how could the presentation of the results be improved?***

The results presented in the report appear to be understandable and appropriate to the task. I believe that the authors of the report presented what they were asked to do; however, I have concerns with the validity of the estimates produced.

***9. Are scientific uncertainties explained and are they appropriate? Explain.***

Estimating usual fish consumption of specific species is a difficult task, and requires a number of assumptions in terms of data summary and analysis. The way in which the data were summarized appeared to be consistent with other studies and there was some discussion regarding the assumptions with respect to regions, seasonality, and habitat. From my knowledge of this area, these appeared to be appropriate. With respect to the statistical methodology, it appears that there are additional uncertainties that were not addressed to the degree that they could be (see my response to previous questions for details). It would be helpful to discuss the statistical methodology used in the previous report, to explain the discrepancies between the previous estimate of the 90<sup>th</sup> percentile of consumption compared to the new estimate.

**10. The data used in the analysis have been subdivided based on demographic and geographical characteristics of the respondents. Are the subsets of data sufficiently robust to characterize fish consumption within the subgroups for the purposes stated in the report? Please provide your response for each of the major subgroup categories included in the main body of the report.**

Table C-56 details the number reporting fish consumption on both 24-hour recalls by fish type. In general, one would want at least 50 participants per cell in order to estimate the variance components for between and within person variation. As mentioned previously, it is not clear exactly how the subgroup estimates were derived. If they were derived from covariates in one large model, it may be appropriate to assume the same ratio of between with within variance holds for the smaller subgroup. However, if the models are stratified by subgroup (which I do not think they were, but it is not completely clear), then the sample size of some of these subgroups would not be of sufficient size to produce stable estimates of variance components.

### III. SPECIFIC OBSERVATIONS

Page	Paragraph	Comment or Question
1	5	The NCI method <u>simultaneously</u> models probability and amount.
20	4	More detail should be given on the “NHANES survey weights” used. Are they the dietary weights that are adjusted for non-response? BRR weights?
21	4	Was a 9 point approximation considered?
22	2	More detail on the BRR weights and these calculations should be provided.
22	3	The highest correlation of what? This procedure is unclear.
54	1	The first sentence in Section 5.4.2 is unclear. When one produces estimates of the distribution of usual intake without partitioning between and within person variability, the estimated variance of the distribution is over-estimated, leading to over estimates of person in the tails of the distribution. I think this sentence is referring to the SE for the estimates of the percentiles, but it may be misinterpreted as the variance of the distribution of intake (as it does not specify the variance of what, it just says “the variance”).
C-1++		The tables in Appendix C do not have units given – units should be added.

**Attachment A: EPA's Draft Document "Fish Consumption Rates"**

# **Fish Consumption Rates**

## **Draft Report**

**August 23, 2013**

*DRAFT Do not cite or quote*

## Table of Contents

<u>Chapter</u>		<u>Page</u>
1	Background.....	1
2	National Health and Examination Survey .....	3
	2.1 Survey Description.....	3
	2.2 Survey Data.....	4
	2.2.1 24-hr Recall.....	4
	2.2.2 30-day Fish Consumption Frequency.....	4
	2.3 Food and Nutrient Database for Dietary Studies .....	5
	2.4 Regions .....	5
3	NCI Method.....	7
4	Methods .....	8
	4.1 Habitat Apportionment .....	8
	4.1.1 NHANES Fish Groupings.....	10
	4.1.2 Use of NOAA Landings Data.....	11
	4.1.3 Imported Fish and Farmed Fish .....	13
	4.2 Trophic Level Assignments.....	13
	4.3 Extracting Reported Amounts of Fish Consumed.....	16
	4.4 Statistical Methods .....	17
	4.4.1 Overview of the NCI method .....	17
	4.4.2 Calculation steps for the NCI and Modified Models.....	18
	4.4.3 Simulation of the Usual Fish Consumption .....	20
	4.4.4 Calculation of Confidence Intervals .....	22
	4.4.5 Application of Modified NCI Method .....	22
	4.4.6 Comparison of Estimates to NCI Method.....	22
5	Results .....	23
	5.1 Sample Size .....	23
	5.2 UFCR Adults, 21 Years and Older.....	25
	5.3 Comparison of UFCR Estimates: Modified NCI Method and NCI Method.....	48
	5.4 Uncertainty.....	53
	5.4.1 Habitat Assignment.....	53
	5.4.2 NCI Method.....	54
	5.4.3 Regions.....	55
	5.4.4 Seasonality.....	55
	5.4.5 Precision of Estimates .....	55
6	References.....	56

## Table of Contents (continued)

---

<u>Table</u>	<u>Page</u>
Table 1. Habitat Assignments of NHANES Fish Groups .....	9
Table 2. NOAA landings data, clam apportionment.....	12
Table 3. Trophic Level Assignments .....	15
Table 4. Processing Adjustments.....	16
Table 5. Sample Size and Number Reporting Fish Consumption, by Fish Type.....	24
Table 6a. UFCR Estimates (g/day): Total Fish, Adults, 21 years and older, by demographics .....	26
Table 6b. UFCR Estimates (g/day): Total Fish, Adults, 21 years and older, by geography .....	27
Table 7a. UFCR Estimates (g/day): Freshwater + Estuarine Fish, Adults, 21 years and older, by demographics .....	28
Table 7b. UFCR Estimates (g/day): Freshwater + Estuarine Fish, Adults, 21 years and older, by geography .....	29
Table 8a. UFCR Estimates (g/day): Marine Fish, Adults, 21 years and older, by demographics.....	30
Table 8b. UFCR Estimates (g/day): Marine Fish, Adults, 21 years and older, by geography .....	31
Table 9a. UFCR Estimates (g/day): Total Finfish, Adults, 21 years and older, by demographics.....	32
Table 9b. UFCR Estimates (g/day): Total Finfish, Adults, 21 years and older, by geography .....	33
Table 10a. UFCR Estimates (g/day): Total Shellfish, Adults, 21 years and older, by demographics.....	34
Table 10b. UFCR Estimates (g/day): Total Shellfish, Adults, 21 years and older, by geography .....	35
Table 11a. UFCR Estimates (g/day): Total Trophic Level 2 Fish, Adults, 21 years and older, by demographics .....	36
Table 11b. UFCR Estimates (g/day): Total Trophic Level 2 Fish, Adults, 21 years and older, by geography.....	37
Table 12a. UFCR Estimates (g/day): Total Trophic Level 3 Fish, Adults, 21 years and older, by demographics .....	38
Table 12b. UFCR Estimates (g/day): Total Trophic Level 3 Fish, Adults, 21 years and older, by geography.....	39
Table 13a. UFCR Estimates (g/day): Total Trophic Level 4 Fish, Adults, 21 years and older, by demographics .....	40
Table 13b. UFCR Estimates (g/day): Total Trophic Level 4 Fish, Adults, 21 years and older, by geography.....	41
Table 14a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 2 Fish, Adults, 21 years and older, by demographics.....	42

## **Table of Contents (continued)**

---

<b><u>Table</u></b>	<b><u>Page</u></b>
Table 14b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 2 Fish, Adults, 21 years and older, by geography .....	43
Table 15a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 3 Fish, Adults, 21 years and older, by demographics.....	44
Table 15b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 3 Fish, Adults, 21 years and older, by geography .....	45
Table 16a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 4 Fish, Adults, 21 years and older, by demographics.....	46
Table 16b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 4 Fish, Adults, 21 years and older, by geography .....	47
Table 17. Models used to compare UFCR Estimates from the Modified NCI Method and the NCI Method .....	48

<b><u>Figure</u></b>	<b><u>Page</u></b>
Figure 1. Estimated usual intake of total fish (g), comparison of EPA's Modified NCI Method and NCI Method .....	49
Figure 2. Estimated usual intake of freshwater + estuarine fish (g), comparison of EPA's Modified NCI Method and NCI Method.....	50
Figure 3. Estimated usual intake of marine fish (g), comparison of EPA's Modified NCI Method and NCI Method .....	51
Figure 4. Estimated usual intake of estuarine fish (g), comparison of EPA's Modified NCI Method and NCI Method .....	52
Figure 5. Estimated usual intake of total fish (g), comparison of EPA's Modified NCI Method and NCI Method with 95% CIs.....	53

### **List of Appendices**

- A Habitat Apportionment Documentation
- B Fish-Containing Food Codes
- C Usual Fish Consumption Rate Tables

# 1 Background

In October, 2000, EPA's Office of Water (OW) published a document titled, Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health. This document presents EPA's recommended methodology for developing ambient water quality criteria as required under Section 304(a) of the Clean Water Act (CWA). Due to the fact that fish consumption varies by geographical location, racial/ethnic group, age, income, and possibly other factors, EPA suggested a "four preference hierarchy" for states and tribes to follow. The four preference hierarchy is:

1. Use of local data
2. Use of data reflecting similar geography/population groups
3. Use of data from national surveys
4. Use of EPA's default intake rates.

The methodology included the current default fish consumption rate (FCR) used by OW:

- 17.5 grams/day for the general U.S. population and recreational fishers
- 142.4 g/day for subsistence fishers.

These rates are the 90<sup>th</sup> and 99<sup>th</sup> percentile of freshwater and estuarine fish consumption as calculated from the Continuing Survey of Food Intake by Individuals (CSFII) conducted by the U.S. Department of Agriculture (USDA) in 1994-1996, for adults 18 years and older. The analytical methodology used to calculate these rates involved apportioning species consumed to habitats (marine, estuarine, and freshwater), multiplying these habitat proportions by grams reported consumed, and then calculating the mean and percentiles of the grams of fish consumed per day by habitat, directly from these resulting amounts. This methodology provides estimates of short-term UFCR.

As fish consumption may have changed over the past decade and new analytical methodologies have been developed, OW has conducted a new analysis of FCR. These new FCR were estimated using data from the National Health and Nutrition Examination Survey (NHANES) 2003-2010. NHANES is a continuous survey designed to collect data on the health and nutritional status of the U.S. population. Each two-year cycle is designed to be representative of the general U.S. population.

In the mid-2000s, the National Cancer Institute (NCI) developed a statistical methodology to estimate usual intake of episodically consumed foods. This method, known as the NCI Method, has been published and statistical programs are available on NCI's website. The NCI method provides estimates of usual daily intake rates representing the long-term average grams of fish consumed per day. Due to the episodic nature of fish consumption, the NCI Method models both the probability of consumption on a given day and the amount consumed on days when some fish is consumed. These two predicted values are then multiplied together to get a usual intake value. The calculations using the NCI Method are very time consuming. In order to get estimates in a reasonable time, EPA created a program that approximates the results from the NCI Method.

Usual fish consumption rates (UFCR) were estimated for the general U.S. population, the youth population under 21 years of age, and the adult population 21 years and older. UFCR estimates were calculated for various subpopulations, *e.g.*, by age, gender, race/ethnicity, income, and by U.S. Census Region and coastal and noncoastal populations. We estimated UFCR for 18 different categories of fish. These are:

- Total fish
- Total finfish
- Total shellfish
- Marine fish
- Freshwater fish
- Estuarine fish
- Freshwater + estuarine fish
- Freshwater + marine fish
- Estuarine + marine fish
- Trophic level 2 fish
- Trophic level 3 fish
- Trophic level 4 fish
- Marine trophic level 2 fish
- Marine trophic level 3 fish
- Marine trophic level 4 fish
- Freshwater + estuarine trophic level 2 fish
- Freshwater + estuarine trophic level 3 fish
- Freshwater + estuarine trophic level 4 fish

This report presents the methodologies used to extract fish consumption data from the NHANES datasets, the habitat apportionment methodology, the trophic level assignment methodology, the statistical methodology, and the UFCR estimates and 95 % CI of the mean and the 25th, 50th, 75th, 90th, 95th, 97th, and 99th percentiles.

## 2 National Health and Examination Survey

### 2.1 Survey Description

NHANES is designed to assess the health and nutritional status of adults and children in the US. It is conducted by the National Center for Health Statistics (NCHS, 2013), part of the Centers for Disease Control and Prevention (CDC) which is responsible for producing vital and health statistics for the US. NHANES began in the 1960s. In 1999, the survey became a continuous program that examines a nationally representative sample of about 5,000 persons located in 15 counties across the country each year.

The NHANES interview includes demographic, socioeconomic, dietary, and health-related questions and the examination component consists of medical, dental, and physiological measurements, as well as laboratory tests.

NHANES collects 2 days of dietary data from all participants. The first day, the data are collected in-person at the examination portion of the survey. The second day's data are collected by telephone interview 3 to 10 days after the in-person interview. Both interviews include a 24-hour dietary recall section. The primary goal of the 24-hour recall is to collect a detailed list of all the foods and beverages consumed within a 24-hour period. Food models are used to help participants estimate the amount consumed. The in-person interview also includes a section on the frequency of consumption of fish and shellfish in the past 30 days. (NCHS, 2009).

A complex, multistage, probability sampling design is used to select participants representative of the civilian, non-institutionalized US population.

- Stage 1: Primary sampling units (PSUs) are selected with probability proportional to a measure of size (PPS). These are mostly single counties or, in a few cases, groups of contiguous counties.
- Stage 2: The PSUs are divided up into segments (generally city blocks or their equivalent). As with each PSU, sample segments are selected with PPS.
- Stage 3: Households within each segment are listed, and a household sample is randomly drawn. In geographic areas where the proportion of age, ethnic, or income groups selected for oversampling is high, the probability of selection for those groups is greater than in other areas.
- Stage 4: Individuals are chosen to participate in NHANES from a list of all persons residing in selected households. Individuals are drawn at random within designated age-sex-race/ethnicity screening subdomains. On average, 1.6 persons are selected per household. Oversampling of certain population subgroups is done to increase the reliability and precision of health status indicator estimates for these groups.

The NHANES data files include analysis weights to account for the complex survey design (including oversampling), survey non-response, and post-stratification. Weighted NHANES results describe the U.S. Census civilian non-institutionalized population. A person's weight is a measure of the number of people in the population represented by that sampled person.

## 2.2 Survey Data

### 2.2.1 24-hr Recall

The 24-hr dietary recall interview data provide 1) what food items the participants ate and 2) how much of each food item they ate. All NHANES participants are eligible for the dietary interview component which occurs during the examination portion of the survey. The first interview is conducted in-person via a computer-assisted dietary interview software program which was developed for NHANES. The interviewer uses a standard set of measuring guides to help the participant report the volume and dimensions of the foods consumed. The second dietary interview is conducted via telephone. It occurs 3 to 10 days after the first dietary interview. The participants are given a set of measuring guides to take home and use during the telephone interview.

The 24-hour recall data are collected using the USDA Automated Multiple-Pass Method (AMPM). Detailed information on the method can be found on USDA's website at: <http://www.ars.usda.gov/Services/docs.htm?docid=7710>. The method is computerized and research-based. It uses 5 steps designed to assist participants with complete and accurate food recall and reduce respondent burden.

The five steps are:

1. Collect a list of foods and beverages consumed the previous day.
2. Probe for foods forgotten during the step 1.
3. Collect time and eating occasion for each food.
4. For each food, collect detailed description, amount, and additions. Review 24-hour day.
5. Final probe for anything else consumed.

### 2.2.2 30-day Fish Consumption Frequency

The 30-day fish consumption frequency data are derived from questionnaire data that asks participants how often in the past 30 days they consumed 31 different fish species. These species are: clams, crabs, crayfish, lobster, mussels, oysters, scallops, shrimp, other shellfish, unknown shellfish, breaded fish products, tuna, bass, catfish, cod, flatfish, haddock, mackerel, perch, pike, pollock, porgy, salmon, sardines, sea bass, shark, swordfish, trout, walleye, other fish, and unknown fish. Using these data we can derive a variable for the number of times fish was consumed in the past 30 days by summing up the values for all 31 variables. This information improves intake estimates for episodically consumed foods like fish, as even people who consumed fish frequently do not do so every day thus it isn't reported frequently in 24-hour recall data. This derived variable of frequency of consumption can then be used as a predictor in statistical models of the probability of fish consumption and fish consumption amount.

## 2.3 Food and Nutrient Database for Dietary Studies

The USDA Food and Nutrient Database for Dietary Studies (FNDDS) is the underlying database used to code dietary intakes for NHANES. It is a database of foods, their nutrient values, and weights for typical food portions. For each new version of FNDDS, foods, portions, and nutrient values are reviewed and updated to reflect the U.S. food supply by incorporating new foods based on what is reported in the survey and updating existing entries.

In FNDDS, each food is given an 8-digit food code. The first digit identifies one of nine major food groups. The second, third, and fourth digits identify increasingly more specific subgroups. Most fish-containing foods are found under “26 – Fish and Shellfish,” “27 – Meat, Poultry, Fish with nonmeat items,” and 28 which includes soups and frozen meals. Other fish-containing foods are found under “5 – Grains” such as seafood pizza and pasta dishes and “7 – Vegetables” for dishes that are mainly vegetables but that also contain fish and/or shellfish.

The NHANES 24-hour recall data includes these same food codes for each reported food consumed, thus the reported foods can be merged to the FNDDS files to obtain recipe information. The FNDDS files are available from the Agriculture Research Service of the USDA (USDA, 2006; USDA, 2008; USDA 2010; Ahuja, et al., 2012).

## 2.4 Regions

Patterns of fish and shellfish consumption may vary by geography such as between U.S. residents that live on or near the coast and those who live inland or between regions of the U.S. as defined by the U.S. Census Bureau (Mahaffey, et al, 2009). Fish consumption patterns may also vary by specific coast (*e.g.*, residents near the Atlantic coast may have different fish consumption patterns than those on the Gulf of Mexico coast). In order to estimate fish consumption rates by region and coast, we assigned NHANES respondents to U.S. Census Bureau regions and coastal or noncoastal status, and further categorized them into 8 regions: Atlantic Coast, Northeast, Great Lakes, Midwest, South, Gulf of Mexico, West, and Pacific Coast. The geography data were obtained from NCHS Research Data Center, through their restricted use data access procedures.

The geographic unit used by NHANES is a county or county equivalent, thus our definitions of coastal and noncoastal were limited to county boundaries. All counties that bordered the Pacific or Atlantic Oceans, the Gulf of Mexico or any of the Great Lakes were defined as coastal. Additionally, counties that bordered estuaries and bays were defined as coastal as were counties whose centroid was within approximately 25 miles of any coast even if not directly bordering a coast. The four coastal regions were then defined based on nearest body of water. The following provides definitions of each region:

- U.S. Census Regions
  - Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, and KS
  - Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, and ME
  - South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, and TX
  - West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, and HI

- Coastal and Inland Regions
  - Pacific Coast = coastal counties in CA, OR, WA, AK, and HI
  - Atlantic Coast = coastal counties in CT, DE, DC, FL (bordering Atlantic Ocean), GA, ME, MD, MA, NH, NJ, NY, NC, PA, RI, SC, and VA
  - Gulf of Mexico Coast = coastal counties in AL, FL (bordering Gulf of Mexico), LA, MS, and TX
  - Great Lakes Coast = counties bordering the Great Lakes in MI, WI, OH, NY, MN, IN, IL, and PA
  - Inland West = remaining counties in CA, OR, WA, AK, and HI and all of NM, CO, WY, MT, ID, UT, AZ, and NV
  - Inland South = remaining non-coastal counties in DE, MD, DC, VA, NC, SC, GA, AL, MS, FL, LA, and TX and all of WV, KY, TN, AR, and OK
  - Inland Northeast = remaining counties in PA, NY, NJ, CT, RI, MA, NH, and ME and all of VT.
  - Inland Midwest = remaining counties in OH, MI, IN, WI, IL, and MN and all of MO, IA, SD, ND, NE, and KS

## 3 NCI Method

The NCI Method (Tooze, et al, 2006; Tooze, et al, 2010) can be used to estimate the distribution of usual intake for a population or subpopulation. The premise of the NCI method is that usual intake is equal to the probability of consumption on a given day times the average amount consumed on a “consumption day.” For episodically-consumed foods, such as fish, a two-part model is used to estimate usual intake. The first part estimates the probability of consumption using logistic regression with a person-specific random effect. The second part uses linear regression on a transformed scale to estimate the consumption-day amount, also with a person-specific effect. The two parts are linked by allowing the person-specific effects to be correlated and by including common predictors in both parts of the model. Data from one or more non-consecutive 24-hour recalls provide the values for the dependent variable. At least a subset of the population needs to have consumption data from two or more 24-hour recalls. Predictors related to either the probability of consumption or consumption amount, such as gender, age, race, and income can be included in the modeling. In most cases, the most important predictor is a measure of frequency of consumption of the food of interest (in this case, fish) obtained from a food frequency questionnaire. The resulting model parameters are then used to estimate population and subpopulation distributions.

Evidence for the validity of the method has been published in a series of papers in the Journal of the American Dietetic Association, Statistics in Medicine, and the Journal of Nutrition (Dodd, et al, 2006; Tooze, et al, 2006; Tooze, et al 2010; Freedman, et al, 2010; )

The NCI Method is an improvement over other methods designed to estimate usual intake of episodically consumed foods because it:

- Accounts for reported days without consumption or for consumption-day amounts that are positively skewed
- Distinguishes within-person from between-person variation
- Allows for the correlation between the probability of consumption and the consumption-day amount
- Relates covariate information to usual intake

### 4.1 Habitat Apportionment

In order to make estimates of fish consumption rates for marine fish, estuarine fish, freshwater fish, and various combinations of these types, the fish species reported as consumed by NHANES participants were apportioned to habitats. The assignments of species were completed by a fisheries biologist. Appendix A contains the detailed documentation of the assignments for each species.

The fish were apportioned to align with EPA's long-standing interpretation of section 303(c) (2) (A) of the Clean Water Act that State and Tribal waters should support safe consumption of fish and shellfish and that the standards need to be set to enable residents to safely consume from local waters the amount of fish they would normally consume from all fresh and estuarine (including near coastal) waters. Thus marine species that are harvested in near coastal waters were assigned to the estuarine habitat in order to be included in the freshwater + estuarine fish consumption rate. The following decisions concerning habitat assignments were made:

- Estuarine fish and shellfish include estuarine species harvested in near-coastal areas (clams, mussels, crabs, lobster, shrimp) and single species that live in both marine and estuarine habitats (*e.g.*, specific clam and octopus species or the single jellyfish species that comprises the US jellyfish fishery).
- Tilapia was assigned 50 percent freshwater and 50 percent estuarine, even though it is rare in US waters to be consistent with, "...the standards need to be set to enable residents to safely consume from local waters the amount of fish they would normally consume from all fresh and estuarine (including near coastal) waters."
- Shrimp was assigned 17.6 percent marine and 82.4 percent estuarine. NOAA landings data show that 17.6 percent of shrimp harvested in 2009-2010 were "Ocean Shrimp (Oregon Pink Shrimp)," "Rock Shrimp," "Royal Red Shrimp," and "Marine Shrimp, Other."
- Salmon was assigned 96 percent marine, 0.5 percent freshwater, and 3.5 percent estuarine. The freshwater percent is landlocked sockeye salmon (Kokanee) found natively in Alaska, Washington, and Oregon, but they have also been introduced to many other states for recreational fishing. The estuarine percent includes saltwater trout which is included in the NHANES salmon group and the small proportion of salmon that are harvested in estuaries. Note that farmed Atlantic salmon were assigned to the marine habitat as they are produced outside of the U.S. in marine waters.

Table 1 presents the final proportion of each NHANES fish group that is assigned to marine, estuarine, and freshwater habitats. The remainder of section 4.1 discusses the details of these assignments. Note that unspecified fish consumed was assigned the overall average habitat apportionment of all species reported consumed.

Table 1. Habitat Assignments of NHANES Fish Groups

Species/Group	Proportion		
	Marine	Freshwater	Estuarine
Abalone	1.000	0.000	0.000
Anchovy	0.000	0.000	1.000
Barracuda	1.000	0.000	0.000
Carp	0.000	1.000	0.000
Catfish	0.000	0.900	0.100
Clam	0.840	0.000	0.160
Cod	1.000	0.000	0.000
Conch	1.000	0.000	0.000
Crab	0.273	0.000	0.727
Crayfish	0.000	1.000	0.000
Croaker	0.071	0.050	0.879
Eel	0.000	1.000	0.000
Fish not specified	0.520	0.160	0.320
Flatfish	0.870	0.000	0.130
Haddock	0.945	0.050	0.006
Halibut	0.780	0.000	0.220
Herring	0.304	0.010	0.686
Jellyfish	0.000	0.000	1.000
Lobster	0.044	0.000	0.956
Mackerel	0.411	0.000	0.589
Mullet	0.000	0.000	1.000
Mussel	0.000	0.000	1.000
Octopus	0.620	0.000	0.380
Oyster	0.000	0.000	1.000
Perch	0.000	1.000	0.000
Pike	0.000	1.000	0.000
Pompano	0.661	0.002	0.338
Roe	0.085	0.235	0.680
Salmon	0.960	0.005	0.035
Sardine	0.900	0.000	0.100
Scallop	0.000	0.000	1.000
Scup/Porgy	0.981	0.000	0.019
Sea Bass	0.925	0.025	0.050
Shad	0.304	0.010	0.686
Shark	0.866	0.000	0.134
Shrimp	0.176	0.000	0.824
Snail	0.450	0.100	0.450
Snapper	0.981	0.000	0.019
Squid	0.800	0.000	0.200
Sturgeon	0.000	0.420	0.580
Swordfish	1.000	0.000	0.000
Trout	0.106	0.869	0.025
Tuna	1.000	0.000	0.000
Whelk	0.000	0.000	1.000
Whitefish	0.877	0.000	0.123
Whiting	1.000	0.000	0.000
Tilapia	0.000	0.500	0.500
Rockfish/Ocean Perch	0.925	0.000	0.075
Breaded Fish Products	1.000	0.000	0.000

### 4.1.1 NHANES Fish Groupings

When the raw 24-hr recall data are processed by NHANES, fish species reported consumed are combined. The list below presents the fish groups that are specified in NHANES data and the additional species that are included in each.

- Abalone
- Anchovy
- Barracuda
- Carp (bream; buffalofish; and sucker)
- Catfish (bullhead)
- Clams
- Cod
- Conch
- Crab
- Crayfish
- Croaker (angelfish; butterflyfish; drumfish; goatfish; kingfish; sea trout; freshwater sheepshead; spadefish; spot; surgeonfish; weakfish; weke; goo; and gaspergou)
- Eel
- Fish stick, patty, or fillet, not specified as to type (commercial products such as Mrs. Paul's, Gorton's, Van de Kamp's)
- Fish, not specified as to type
- Flounder (dab; fluke; halibut; sole; and turbot)
- Haddock (blowfish; burbot; cusk; hake; ling; monkfish; pollock; and scrod)
- Halibut
- Herring (alewife; milkfish; and shad)
- Jellyfish
- Lobster
- Mackerel (garfish; ono; needlefish; and wahoo)
- Mullet
- Mussels
- Ocean perch (bocaccio; menpachi; orange roughy; redfish; and rockfish)
- Octopus
- Oysters
- Perch (freshwater bass; bluegill; crappie; sunfish; and walleye)
- Pike (muskellunge; and pickerel)
- Pompano (akule; blackfish; bluefish; butterfish; dolphinfish; jack; mahimahi; paplo; parrot fish; sablefish; scad; tilefish; ulva; and yellowtail)
- Porgy (scup; sea bream; marine sheepshead; and snapper)
- Ray (skate) [not reported ever consumed]
- Roe
- Roe, sturgeon (caviar)
- Salmon (saltwater trout)
- Sardines
- Scallops
- Sea bass (grouper; striped bass; wreckfish; and bass)
- Shark (dogfish; and grayfish)
- Shrimp
- Smelt [not reported ever consumed]
- Snails
- Snapper
- Squid (cuttlefish)
- Sturgeon
- Swordfish (marlin)
- Tilapia
- Trout (cisco; lake herring; steelhead; and whitefish)
- Tuna (ahi; aku; and bonito)
- Whelk
- Whitefish
- Whiting

This grouping of species complicates the assignment of habitat because in many cases the grouped fish inhabit different habitats. For example, burbot, a freshwater fish, is part of the haddock group, which is defined by the Order Gadiformes (excluding cod). All of the other species in this group are marine and estuarine. For these groups, we used NHANES files from 2007-08 (the only available) that provide the number of times a species was reported by all participants. Using the haddock group as an example, in 2007-08 blowfish, burbot, cusk, hake, ling, and monkfish were reported 0 times, pollock was reported 10 times, scrod was reported 2 times, and haddock was reported 4 times. These counts were then used to assign proportions of each species in the group to the total group. No species in a group was assigned 0 percent based on a 0 count in the files, because it may be reported in another NHANES cycle. The assigned proportions were then multiplied by the habitats and summed to get the total habitat proportions for the fish group.

#### **4.1.2 Use of NOAA Landings Data**

Other assignments were complicated by the fact that a species lives in multiple habitat types, either at different life stages or because different species occupy different habitats. For these species, habitat apportionment was aided by using the National Oceanographic and Atmospheric Administration (NOAA) landings data (<http://www.st.nmfs.noaa.gov/commercial-fisheries/>).

Table 2 is an example of the NOAA landings data for clams for 2010. In order to apportion the total consumption of clams to estuarine and marine, we first assigned a habitat to each clam species listed. According to these data, excluding the catch-all category, 84 percent of all clam landed in 2010 was from the marine environment and 16 percent was from the estuarine environment (multiplying the proportion of total without catch-all by the habitat proportion for each species and then summing for each habitat). These proportions excluding the catch-all category were then applied to the catch-all category, and the overall proportions were re-calculated.

This methodology was used to assist the apportionment of the following species: catfish, clam, crab, flatfish, flounder, sole, halibut, lobster, mackerel, porgy, shrimp, and whiting.

Table 2. NOAA landings data, clam apportionment

	Pounds Landed, 2010	Proportion of Total	Proportion of Total (w/o catch-all category)	Habitat	Habitat Percent
CLAM, ARC, BLOOD	23,738	0.0003	0.0003	estuarine & marine harvested near coast	100E
CLAM, ATLANTIC JACKKNIFE	67,334	0.0008	0.0008	estuarine	100E
CLAM, ATLANTIC SURF	37,465,740	0.4188	0.4542	marine	100M
CLAM, BUTTER	15,133	0.0002	0.0002	estuarine & marine harvested near coast	100E
CLAM, MANILA	937,915	0.0105	0.0114	estuarine	100E
CLAM, NORTHERN QUAHOG	4,406,313	0.0493	0.0534	estuarine	100E
CLAM, OCEAN QUAHOG	31,704,091	0.3544	0.3844	marine	100M
CLAM, PACIFIC GEODUCK	2,777,529	0.0310	0.0337	estuarine & marine harvested near coast	100E
CLAM, PACIFIC LITTLENECK	26,811	0.0003	0.0003	estuarine & marine harvested near coast	100E
CLAM, PACIFIC RAZOR	138,826	0.0016	0.0017	marine	100M
CLAM, PACIFIC, GAPER	6,061	0.0001	0.0001	estuarine & marine harvested near coast	100E
CLAM, QUAHOG	634,131	0.0071	0.0077	estuarine	100E
CLAM, SOFTSHELL	4,278,356	0.0478	0.0519	estuarine & marine harvested near coast	100E
CLAMS OR BIVALVES	6,980,468	0.0780		estuarine & marine (catch-all category)	16E/84M
<b>Total Pounds</b>	<b>89,462,446</b>				
<b>Total Pounds w/o catch-all</b>	<b>82,481,978</b>				
w/o catch-all	Proportion Estuarine	<b>0.15971</b>			
	Proportion Marine	<b>0.84029</b>			
<b>Total</b>	Proportion Estuarine	<b>0.15973</b>			
	Proportion Marine	<b>0.84027</b>			

### 4.1.3 Imported Fish and Farmed Fish

It is known that the US imports a large proportion of the fish consumed from overseas. According to NOAA Fish Watch, 86 percent of the fish consumed in the US is imported ([http://www.fishwatch.gov/wild\\_seafood/outside\\_the\\_us.htm](http://www.fishwatch.gov/wild_seafood/outside_the_us.htm)). The top imported species are shrimp, freshwater fish (mainly tilapia and catfish), tuna, salmon, groundfish (*e.g.*, cod, haddock, flounder), crab, and squid. As marine fish are not harvested from US waters for which states would be developing water quality standards, the issue of importation for these species is not relevant. However, shrimp is the most commonly consumed fish by US consumers. It is unknown whether the proportion consumed that was harvested in non-US waters is distributed equally across the distribution of fish consumers. For example, it is possible that high fish consumers eat more locally caught fish as they may be more likely to be recreational or subsistence fishers. For the purposes of developing UFCR, we assumed that all estuarine, freshwater, and near coastal fish that were consumed were from US waters. The reason for this is that standards need to be set to enable residents to safely consume from local waters the amount of fish they would normally consume from all fresh and estuarine (including near coastal) waters.

There are similar issues with farmed freshwater fish. Freshwater fish can be farmed in man-made ponds or tanks for which the states will not be developing water quality standards. However, as noted above in the discussion concerning imported fish, the proportion of freshwater fish consumed that is farmed, may not be evenly distributed across the distribution of consumption. Again, it is possible that high fish consumers are eating locally caught fish through recreational or subsistence fishing and thus eating a smaller proportion of farmed fish than those at the middle and low end of the consumption distribution. Thus farmed species will be assumed to be wild caught. This allows residents to safely consume from local waters the amount of fish they would normally consume from fish farms.

## 4.2 Trophic Level Assignments

The trophic level of an organism is the place it is in the food web. Organisms with higher trophic levels have higher exposures to environmental contaminants.

- Trophic level 1 organisms are primary producers (plants and algae).
- Trophic level 2 organisms are herbivores, also called primary consumers.
- Trophic level 3 organisms are carnivores that consume primary consumers.
- Trophic level 4 organisms are carnivores that consume other carnivores.
- Trophic level 5 organisms are the apex predators.

Trophic level assignments were made using the data provided in the following documents:

1. Table 6-4 in Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000) Technical Support Document Volume 2: Development of National Bioaccumulation Factors. December 2003. EPA-822-R-03-030.
2. Trophic Level and Exposure Analyses for Selected Piscivorous Birds and Mammals. Volume III: Appendices. September 2002.

For species that were not in those documents, we performed a search of literature available on the internet and applied the same rules that were described in the December 2003 document:

- For game fish, data were used for edible size ranges (about 20 cm [8 inches] or larger).
- For species where multiple size ranges were available, preference was given to the larger specimens in determining the species trophic level.
- Trophic level 2 was assigned to a species if appropriate trophic level data ranged between 1.6 and 2.4; trophic level 3 if trophic level data ranged from 2.5 to 3.4; and trophic level 4 if trophic level data were 3.5 or higher. This is consistent with the approach taken in the Great Lakes Water Quality Initiative guidance (USEPA, 1995b).
- In determining NHANES grouping trophic level assignments, best professional judgment was used. For example, the NHANES grouping for catfish includes four species that are assigned to trophic level 3 and three species assigned to trophic level 4. Thus, it is assumed that half (50 percent) of consumption in the catfish NHANES grouping is from TL3 and half from TL4.

Table 3 presents the final trophic level assignments.

DRAFT Do not cite or quote

**Table 3. Trophic Level Assignments**

Fish Species/Group	Proportion of Assigned to Trophic Level		
	Trophic Level 2	Trophic Level 3	Trophic Level 4
ABALONE	1	0	0
ANCHOVY	0.5	0.5	0
BARRACUDA	0	0	1
CARP	0	1	0
CATFISH	0	0.5	0.5
CLAM	1	0	0
COD	0	0	1
CONCH	1	0	0
CRAB	0	1	0
CRAYFISH	0	1	0
CROAKER	0	0.5	0.5
EEL	0	0	1
FLATFISH	0	0.5	0.5
HADDOCK	0	0	1
HALIBUT	0	0	1
HERRING	0	1	0
JELLYFISH	1	0	0
LOBSTER	0	1	0
MACKEREL	0	0	1
MULLET	1	0	0
MUSSEL	1	0	0
ROCKFISH/OCEAN PERCH	0	0	1
OCTOPUS	0	0.5	0.5
OYSTER	1	0	0
PERCH	0	0	1
PIKE	0	0	1
POMPANO	0	0	1
PORGY/SCUP	0	0	1
ROE	0	0	0
SALMON	0	0	1
SARDINE	0	1	0
SCALLOP	1	0	0
SEA BASS	0	0	1
SHAD	0	1	0
SHARK	0	0	1
SHRIMP	0.5	0.5	0
SNAIL	1	0	0
SNAPPER	0	0	1
SQUID	0	0.5	0.5
STURGEON	0	0	1
SWORDFISH	0	0	1
TROUT	0	0	1
TUNA	0	0	1
WHELK	1	0	0
WHITEFISH	0	1	0
WHITING	0	1	0
TILAPIA	1	0	0
BREADED FISH PRODUCTS	0	0.5	0.5
FISH NOT SPECIFIED	0	0.5	0.5

### 4.3 Extracting Reported Amounts of Fish Consumed

The FNDDS files were searched to find all food codes that contain finfish and/or shellfish. These records were then processed to determine the percent of each food code that is fish. During this processing, each fish ingredient in the recipe was proportioned to marine, estuarine, and freshwater habitat and to trophic levels 2, 3, and 4, as discussed in Sections 4.1 and 4.2. Each of these values was summed, along with total fish percent, across all fish-containing ingredients to get total values for each habitat, trophic level, and total fish for each fish-containing food code.

Some ingredients are pre-processed, such as canned tuna. In order to adjust for moisture loss during the processing, adjustment factors were applied to the proportions. The adjustment factors applied were those used in the analysis of the CSFII data published in 2002 (EPA, 2002) and were also used in the Mercury Report to Congress (EPA, 1997). Table 4 provides the adjustments applied to processed ingredients.

**Table 4. Processing Adjustments**

Processing Method	Percent moisture loss
Canned	25
Fried	12
Cooked, dry heat	25
Steamed or poached	21
Dried and salted	80
Pickled	15
Kippered	10
Salted	30
Smoked salmon	5
Smoked sturgeon	16
Smoked tuna	21
Smoked cisco	30
Smoked haddock	11

Appendix B provides a list of all fish-containing food codes reported consumed extracted from the NHANES data along with:

- The number of records of that food code in the data
- The percent of all records that food code makes up
- The description of the food
- The fish ingredient description, if more than one
- The proportion of the food code that is that ingredient
- Form of ingredient (raw, canned, etc.)
- Moisture loss due to pre-processing
- The multiplier to calculate total fish
- The multiplier to calculate marine fish
- The multiplier to calculate freshwater fish

- The multiplier to calculate estuarine fish
- The multiplier to calculate shellfish
- The multiplier to calculate finfish
- The multiplier to calculate trophic level 2
- The multiplier to calculate trophic level 3
- The multiplier to calculate trophic level 4

## 4.4 Statistical Methods

### 4.4.1 Overview of the NCI method

For an individual, “usual fish consumption” is the long-term mean fish consumption rate expressed in units such as grams per day. When using the NHANES data for estimation of the distribution of usual fish consumption across individuals, the NCI method can be used, fitting a statistical model to the reported fish consumption from two 24-hour dietary recalls. The calculations require two or more dietary recalls with non-zero fish consumption for at least some survey respondents. The statistical model has two sub-models: one predicting the long-term probability of fish consumption in a 24-hour period and, for those that reported some fish consumption, a second model predicting the long-term mean daily amount of fish consumed. The usual fish consumption (or usual fish intake) is the product of the probability of fish consumption and the mean amount of fish consumed.

The sub-model predicting the probability of fish consumption in a 24-hour period has two variance components, person-level random effects for an individual’s long-term probability of consuming fish and within-individual binomial variation between days when fish was or was not consumed. The logit-transformed person-level random effects are assumed to be normally distributed.

The amount sub-model involves a Box-Cox transformation such that the transformed amount of fish consumed in a 24-hour recall is reasonably normally distributed. In the transformed units, the amount sub-model has two variance components, person-level random effects for an individual’s long-term mean fish consumption and within-individual differences in the amount of fish consumed on different days. In the transformed units, the person-level mean fish consumption and the within-individual daily fish consumption are assumed to have normal distributions.

The person-level random effects may be correlated, for example, those with a higher probability of consuming fish in a 24-hour period may also tend to consume larger daily amounts of fish.

Both sub-models can have additional predictors, such as person-level demographic characteristics and reported frequency of fish consumption. In addition, the model can incorporate the following within-person predictors: 1) differences between weekends (Friday to Sunday) and weekdays (Monday to Thursday), and 2) consistent differences between the first 24-hour recall and the second 24-hour recall in NHANES (the first was completed in person and the second was completed by phone).

For the NHANES population, the usual fish consumption distribution across the population can be obtained by simulating the person-level random effects, calculating the usual fish consumption for each respondent and pair of simulated random components, and calculating weighted estimates of the usual fish consumption using the NHANES weight and design variables.

EPA created a SAS macro to approximate the results from the NCI method while taking considerably less time for the calculations. The following describes both the NCI and modified models.

#### 4.4.2 Calculation steps for the NCI and Modified Models

The NCI method can be implemented using two SAS macros (programs) available from the NCI website (the MIXTRAN and DISTRIB macros). The equations fit using the NCI macros are presented below.

For individual  $i$ , let  $\mathbf{X}_{ik}$  = individual level covariates. For the  $j^{\text{th}}$  24-hour dietary recall for individual  $i$ , let  $A_{ij}$  equal the grams of fish consumed as reported in a 24-hour dietary recall,  $P_{ij}$  = the probability of consuming fish in a 24-hour period,  $W_{ij}$  indicate whether the 24-hour recall was for a weekend ( $W_{ij} = 1$ ) or a weekday ( $W_{ij} = 0$ ), and  $S_{ij}$  indicate if the 24-hour recall was the first (in-person,  $S_{ij} = 0$ ) or the second (by phone,  $S_{ij} = 1$ ) dietary recall. The usual daily consumption is the weighted average of the weekday and weekend estimates. The NCI macro fits some preliminary models to obtain approximate parameter estimates to use as starting values for the NLMIXED procedure which fits the following set of equations at one time, using maximum likelihood. In these equations, the parameters for the probability model are represented by  $\boldsymbol{\pi}$ , the parameters for the amount model are represented by  $\boldsymbol{\alpha}$ , and standard deviations of the variance components are represented by  $\boldsymbol{\sigma}$ , and the correlation of the person-level random effects is  $\rho$ .

$$C_{ij} = \begin{cases} 0 & A_{ij} = 0 \\ 1 & A_{ij} > 0 \end{cases}$$

$$\text{Logit}(P_{ij}) = \log\left(\frac{P_{ij}}{1 - P_{ij}}\right) = \pi_0 + \mathbf{X}_{ik}\boldsymbol{\pi}_{Xk} + \pi_i + W_{ij}\pi_W + S_{ij}\pi_S$$

$$C_{ij} \sim \text{Binomial}(1, P_{ij})$$

$$\text{If } A_{ij} > 0 \text{ then } T_{ij} = \frac{A_{ij}^\lambda - 1}{\lambda} = \alpha_0 + \mathbf{X}_{ik}\boldsymbol{\alpha}_{Xk} + \alpha_i + W_{ij}\alpha_W + S_{ij}\alpha_S + \alpha_{ij}$$

$$\alpha_{ij} \sim \text{Normal}(0, \sigma_3)$$

$$[\pi_i \quad \alpha_i] \sim \text{BNormal}\left([0 \quad 0], \begin{bmatrix} \sigma_1 & \rho \\ \rho & \sigma_2 \end{bmatrix}\right)$$

EPA created a SAS macro to approximate the results from the NCI macro while taking considerably less computing time. The equations for the EPA macro are described below.

In the NCI method, the maximum likelihood procedure finds the best transformation, defined by  $\lambda$ , consistent with the model and the assumption that the random effects are normally distributed. In the approximate approach used by EPA, the user specifies the transformation by specifying  $\lambda = \lambda^*$ . The macro prints the correlation between the residuals and the associated normal scores as well as a

normal scores plot to help evaluate the choice of  $\lambda^*$ . The transformed consumption amounts for 24-hour recalls with reported fish consumption are:

$$T_{ij} = \frac{A_{ij}^{\lambda^*} - 1}{\lambda^*}$$

The following summary statistics are calculated for each person:

$$\bar{S}_i = \text{Mean}_j(S_{ij}), \bar{W}_i = \text{Mean}_j(W_{ij}), D_i = \text{Sum}_j(C_{ij}), N_i = \text{Count}_j(C_{ij})$$

For person  $i$ ,  $N_i$  is the number of 24-hour recalls and  $D_i$  is the number of 24-hour recalls with reported fish consumption.

The following logistic regression model was fit using the SAS SurveyLogistic procedure and the specified survey weights (using the NHANES strata and PSU variables). This logistic regression model predicts the probability of consuming fish in a 24-hour recall without including the person-level random effect.

$$\text{Logit}(P) = \log\left(\frac{P}{1-P}\right) = \pi_0 + \mathbf{X}_{ik}\boldsymbol{\pi}_{Xk} + \bar{W}_i\pi_W + \bar{S}_i\pi_S$$

The person-level random effect is included by assuming the predicted logit when excluding the random effect is proportional to the predicted logit when including the random effect. The following model was fit subject to the constraint that the mean weighted  $P$  from the model above is equal to the expected weighted mean of  $P_i$ . This is fit by iteratively 1) selecting the standard deviation of the random effect ( $\sigma_1$ ), 2) finding  $\beta$  such that  $\text{Mean}_i(P) = E(\text{Mean}_i(P_i))$ , and 3) calculating the expected weighted Chi-square for predicting the observed data. The expected values were calculated using numerical integration. The final parameters minimize the Chi-square statistic.

$$\text{Logit}(P_i) = \log\left(\frac{P_i}{1-P_i}\right) = \text{Logit}(P)\beta + \pi_i$$

$$\pi_i \sim \text{Normal}(0, \sigma_1), \beta \text{ set so that } \text{Mean}_i(P) = E(\text{Mean}_i(P_i))$$

The correlation between the person-level random effects for the probability sub-model and the amount sub-model is approximated by calculating a residual from the probability model and using it as a predictor in the amount sub-model. The residual from the probability model is:

$$R_i = \frac{D_i}{N_i} - \text{Logistic}(\text{Logit}(P)\beta)$$

The SAS SurveyReg procedure is used to fit the amount sub-model using only the records from the first 12-hour recall ( $S_{ij} = 0$ ). The variance of the regression error ( $\sigma_4$ ) is the sum of the variance of the person-level random effect and the within-person variation.

$$\text{If } D_i > 0 \text{ then } \bar{T}_i = \alpha_0 + \mathbf{X}_{ik}\boldsymbol{\alpha}_{Xk} + \alpha_i^* + W_{i1}\alpha_{W_B} + R_i\alpha_R$$

$$\alpha_i^* \sim \text{Normal}(0, \sigma_4)$$

The variance of the within-person variance component is estimated from the differences between the first and second 24-hour recalls adjusted for consistent differences between the recalls and for weekday to weekend differences. The following model was fit to estimate the within-person variance.

$$\text{If } D_i > 1 \text{ then } (A_{i2} - A_{i1}) = \alpha_S + (W_{i2} - W_{i1})\alpha_{W_W} + \alpha_{i*}, \text{ where } \alpha_{i*} = (\alpha_{i2} + \alpha_{i1})$$

The variance of the within person-level random effect is estimated from the RMSE calculated by the SURVEYREG procedure:

$$\sigma_3^2 = \frac{RMSE^2}{2}$$

The variance of the person-level random effect is:

$$\sigma_2^2 = \sigma_4^2 - \sigma_3^2$$

If the estimate of  $\sigma_2^2$  is less than zero, then:

$$\sigma_2^2 = 0, \sigma_3^2 = \text{Mean}\left(\sigma_4^2, \frac{RMSE^2}{2}\right)$$

The model for within-person differences and the person-level model both have parameters for the weekend versus weekday difference. For the simulations below, the weighted average of these two parameters was used, with weights inversely proportional to the square of the standard errors.

Both the NCI macro and the EPA macro use the NHANES survey weights for all the calculations (i.e., weighted regressions and weighted estimates of the variance components). Calculation of standard errors requires: 1) calculation of replicate weights consistent with the NHANES survey design and strata and PSU variables; 2) running the macros using the full-sample weight and each replicate weight; and 3) combining the results to estimate the standard errors.

#### 4.4.3 Simulation of the Usual Fish Consumption

With the parameter estimates, the NCI method simulates values using the model parameters with the following modifications:

- The predicted values reflect a standard week (3 weekend days and 4 weekday days) rather than the distribution of weekday and weekend recalls in the data.
- The predicted values assume the first (in-person) 24-hour recall is unbiased by ignoring the difference between the first and second recall, i.e.,  $\alpha_S = \pi_S = 0$ .
- The predicted values do not include the within person variation, i.e., binomial variation for within person variation in the probability of fish consumption and the within person variation in the amount of fish consumption, when consumed.

The number of simulated values for each person can be specified. The default number is 100. In the equations below, the U subscript represents the simulation number.

The following equations are used to simulate an individual's long-term probability of fish consumption ( $Q_{Ui}$ ) and long-term mean (usual) fish consumption when fish is consumed ( $T_{Ui}$ ). In the equations below, the logistic function is the inverse of the Logit function.

$$Q_{Ui} = \text{Logistic} \left( \pi_0 + \mathbf{X}_{ik} \boldsymbol{\pi}_{Xk} + \pi_{Ui} + \frac{3}{7} \pi_W \right)$$

$$T_{Ui} = \alpha_0 + \mathbf{X}_{ik} \boldsymbol{\alpha}_{Xk} + \alpha_{Ui} + \frac{3}{7} \pi_W$$

$$[\pi_{Ui} \quad \alpha_{Ui}] \sim \text{BNormal} \left( [0 \quad 0], \begin{bmatrix} \sigma_1 & \rho \\ \rho & \sigma_2 \end{bmatrix} \right)$$

A slightly modified version of these equations is used for the simulated values using the EPA procedure. In particular, the EPA equation requires simulating the residual from the probability model for use in the amount model. The EPA equations are:

$$Q_{Ui} = \text{Logistic} \left( (\pi_0 + \mathbf{X}_{ik} \boldsymbol{\pi}_{Xk}) \beta + \pi_{Ui} + \frac{3}{7} \pi_W \right)$$

$$D_{Ui} \sim \text{Binomial}(N_i, Q_{Ui})$$

$$R_{Ui} = \frac{D_{Ui}}{N_i} - \text{Logistic} \left( (\pi_0 + \mathbf{X}_{ik} \boldsymbol{\pi}_{Xk} + \frac{3}{7} \pi_W) \beta \right)$$

$$T_{Ui} = \alpha_0 + \mathbf{X}_{ik} \boldsymbol{\alpha}_{Xk} + \alpha_{Ui} + \frac{3}{7} \alpha_W + R_{Ui} \alpha_R$$

$$[\pi_{Ui} \quad \alpha_{Ui}] \sim \text{BNormal} \left( [0 \quad 0], \begin{bmatrix} \sigma_1 & 0 \\ 0 & \sigma_2 \end{bmatrix} \right)$$

Finally, the simulated transformed consumption amounts are untransformed using the following equation:

$$B_{Ui} = (T_{Ui} \lambda + \mathbf{1})^{(1/\lambda)} + \frac{\sigma_3^2 (1 - \lambda)}{2} (T_{Ui} \lambda + \mathbf{1})^{(1/\lambda - 2)}$$

This equation includes an adjustment with the within person variance in the fish consumption amount ( $\sigma_3^2$ ). This adjustment makes the untransformed fish consumption essentially unbiased compared to the original mean across the 24-hour recalls.

Although when  $A_{ij} = 0$  the transformed fish consumption is defined ( $T_{ij} = \frac{-1}{\lambda}$ ), it is possible to simulate a value such that  $T_{Ui} < \frac{-1}{\lambda}$ , for which the untransformed value is not defined. In the NCI

macro, these small simulated values in the transformed scale are set to half of the minimum reported fish consumption for any 24-hour recall. The same assumption is used in the EPA calculations. The usual fish consumption for a simulated person is then:

$$U_{ui} = Q_{ui}B_{ui}$$

Summary statistics for the usual fish consumption, such as means and percentiles, can be calculated using the simulated values and the NHANES survey weights.

#### **4.4.4 Calculation of Confidence Intervals**

Various summary statistics (means and percentiles) are calculated using the simulated usual fish consumption values. Since the usual fish consumption values are generally skewed with a roughly lognormal distribution, calculating the confidence intervals on the log scale appears reasonable and has the beneficial effect that confidence limits cannot be negative. As a result, the confidence intervals for the summary statistics are calculated by 1) fitting the NCI model or EPA model using the full sample weight and each replicate weight; 2) log-transforming the estimates; 3) calculating the standard deviation of the estimates using the appropriate formulas for the BRR weights; 4) calculating confidence intervals for the estimates assuming a normal distribution; and 5) un-transforming the confidence interval bounds.

#### **4.4.5 Application of Modified NCI Method**

For each fish type the NCI Method MIXTRAN macro was used to determine a starting  $\lambda$  using the transformed frequency of consumption as a predictor in the model. The Modified NCI Method was then used to determine the  $\lambda$  that provided the highest correlation by running the model with the starting  $\lambda$  and then lowering and raising  $\lambda$  in consecutive runs while including all significant predictors (age, gender, race/ethnicity, income, coastal/inland region, log-transformed body weight, and interactions between race/ethnicity and age, race/ethnicity and coastal/inland region, and age and coastal/inland region). For the trophic level by habitat fish types (e.g., trophic level 2 freshwater + estuarine fish) the interaction terms were not included in the models due to the low number of persons reporting consumption on both recalls for those fish types. When the best lambda was determined, the Modified NCI Method was run for all replicate weights. The number of simulations was set to five.

Confidence intervals for summary statistics were then calculated as described in Section 4.4.4.

#### **4.4.6 Comparison of Estimates to NCI Method**

In order to evaluate how estimates from the Modified NCI Method compared to estimates from the full NCI Method, we ran simplified comparable models. The results from this exercise are presented in Section 5.3.

## 5 Results

This section presents the sample sizes and the estimated UFCR for all fish and shellfish for adults and youth, by demographics and geography. Full tables including rates for the total population (youth and adults combined) and rates for freshwater fish, estuarine fish, marine + freshwater fish, marine + estuarine fish, and trophic level by habitat are in Appendix C. The tables in Appendix C include approximate p-values indicating the significance of the differences within subpopulations.

Note that the adult population is defined as people aged 21 years and over. The US EPA Exposure Factors Handbook classifies those aged 21 years and over as adults. Children are grouped as follows: 3 to <6 years, 6 to <11 years, 11 to <16 years, 16 to <18 years, and 18 to <21 years.

### 5.1 Sample Size

Table 5 presents the sample sizes for each subpopulation that reported fish consumption on at least one 24-hour recall. An expanded table that includes the other fish types for which rates were calculated can be found in Appendix C.

The model for each fish type was fit using data from the total population. The simulated data were then summarized by subsets, such as age, race/ethnicity, and region.

**Table 5. Sample Size and Number Reporting Fish Consumption, by Fish Type**

	<b>N</b>	<b>Any Fish</b>	<b>FW+Est</b>	<b>Marine</b>	<b>Finfish</b>	<b>Shellfish</b>	<b>Trophic Level 2</b>	<b>Trophic Level 3</b>	<b>Trophic Level 4</b>
<b>Total</b>	29,463	6,890	4,964	6,285	5,320	2,439	2,705	4,463	4,546
<b>Gender</b>									
Female	15,694	3,806	2,725	3,494	2,924	1,345	1,494	2,434	2,498
Male	13,769	3,084	2,239	2,791	2,396	1,094	1,211	2,029	2,048
<b>Age, years</b>									
1 to <3	2,325	345	204	305	272	98	111	209	242
3 to <6	2,185	350	200	322	277	104	118	225	246
6 to <11	2,705	454	270	416	367	126	143	286	313
11 to <16	2,806	445	318	402	322	162	180	296	268
16 to <18	1,417	252	180	237	171	96	98	173	155
18 to <21	1,662	311	213	294	227	128	131	209	197
21 to <35	4,381	1,070	815	992	761	489	531	745	645
35 to <50	4,522	1,332	1,018	1,221	1,023	497	566	883	839
50 to <65	3,730	1,216	918	1,101	971	424	468	775	836
65 and older	3,730	1,115	828	995	929	315	359	662	805
WCA (13 to 49 years)	7,870	1,919	1,421	1,785	1,409	768	839	1,300	1,179
<b>Income</b>									
<\$20k	6,679	1,374	920	1,256	1,091	432	491	911	926
\$20k to <\$45k	8,955	1,968	1,405	1,774	1,501	695	791	1,285	1,258
\$45k to <\$75k	5,561	1,334	979	1,211	1,039	465	511	856	898
\$75k and over	6,288	1,768	1,336	1,634	1,352	687	740	1,108	1,166
>\$20k	825	203	153	182	149	72	86	140	126
Ref/DK income	808	164	118	153	126	57	57	111	116
Income missing	347	79	53	75	62	31	29	52	56
<b>Race/Ethnicity</b>									
Mexican American	6,868	1,350	961	1,212	970	524	618	886	823
Other Hispanic	2,405	532	353	490	403	177	202	329	348
Non-Hispanic white	11,980	2,678	1,904	2,509	2,075	955	1,006	1,573	1,835
Non-Hispanic black	6,734	1,818	1,333	1,603	1,464	589	669	1,291	1,184
Other race	1,476	512	413	471	408	194	210	384	356
<b>US Region</b>									
Midwest	6,445	1,235	855	1,070	968	381	431	773	840
Northeast	4,475	1,202	814	1,154	912	447	445	733	806
South	11,036	2,687	1,965	2,415	21,090	950	1,086	1,827	1,732
West	7,507	1,766	1,330	1,646	1,331	661	743	1,130	1,168
<b>Coastal Status</b>									
Noncoastal	17,251	3,718	2,584	3,376	2,903	1,214	1,344	2,362	2,546
Coastal	12,212	3,172	2,380	2,909	2,417	1,225	1,361	2,101	2,000
<b>US Coastal/Inland Region</b>									
Pacific	3,802	976	747	900	747	369	425	621	644
Atlantic	4,646	1,320	960	1,247	1,011	488	524	865	835
Gulf of Mexico	1,370	361	296	316	275	186	203	269	202
Great Lakes	2,394	515	377	446	384	182	209	346	319
Inland Northeast	2,584	628	416	600	476	229	234	364	416
Inland Midwest	4,137	741	487	645	602	203	226	437	539
Inland South	6,825	1,559	1,098	1,385	1,241	490	566	1,052	1,067
Inland West	3,705	790	583	746	584	292	318	509	524

## 5.2 UFCR Adults, 21 Years and Older

Tables 6 through 16 present the UFCR estimates for adults 21 years and older for total fish, freshwater + estuarine fish, marine fish, trophic level 2 fish, trophic level 3 fish, trophic level 4 fish, trophic level 2 freshwater + estuarine fish, trophic level 3 freshwater + estuarine fish, and trophic level 4 freshwater + estuarine fish. The tables provide the 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup>, 97<sup>th</sup>, and 99<sup>th</sup> percentiles, along with their respective 95 percent confidence intervals.

In the tables there are percentiles for total fish consumed and for various fish types that make up the total. The mean consumption for all fish should be equal, not counting random errors, to the sum of the mean consumption across different types of fish, e.g., marine, estuarine, and freshwater or trophic levels 2, 3, and 4. The same cannot be said about percentiles. At the extreme, the sum of the maximum fish consumption across fish types will not equal the maximum fish consumption for all fish except in the very unusual case where one individual is the largest consumer in all fish type categories. For a selected percentile, the difference between the sum of the percentiles across fish types and the percentile for all fish will increase as the percentile of interest increases from the 50th percentile to 90th percentile, 99th percentile, and the maximum. In general, the 90th percentile for all fish should be greater than the 90th percentile for any one type and less than the sum of the 90th percentiles across all types. The selected percentiles of the fish types would only sum to the same percentile of all fish if the fish consumption for different fish types were perfectly correlated.

There are two tables for each fish type, a and b. Table a presents the UFCR by demographic factors (gender, age, income, and race/ethnicity) and table b presents the UFCR by geography.

Table 6a. UFCR Estimates (g/day): Total Fish, Adults, 21 years and older, by demographics

<i>Total Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	7.27 (4.5,11.7)	15.73 (11.9,20.7)	28.31 (23.1,34.6)	44.83 (37.1,54.2)	56.75 (46.7,69.0)	65.15 (52.8,80.3)	85.30 (67.9,107.2)
<b>Gender</b>							
Female	6.47 (3.8,11.1)	14.01 (10.4,18.8)	25.18 (20.2,31.4)	39.85 (32.2,49.3)	50.02 (40.6,61.6)	57.56 (46.5,71.2)	71.24 (54.6,93.0)
Male	8.71 (5.6,13.6)	18.11 (14.1,23.3)	32.29 (26.5,39.4)	50.97 (42.0,61.8)	64.06 (52.2,78.7)	74.82 (60.9,92.0)	97.15 (77.2,122.2)
<b>Age</b>							
21 to <35 yrs	5.13 (2.2,11.9)	13.07 (7.3,23.4)	24.45 (17.2,34.8)	40.55 (30.9,53.2)	53.21 (41.8,67.7)	62.05 (49.9,77.2)	86.18 (66.5,111.6)
35 to <50 yrs	7.57 (5.2,11.0)	15.50 (12.4,19.4)	27.40 (22.3,33.7)	42.77 (34.0,53.8)	53.97 (41.8,69.7)	61.78 (46.3,82.4)	78.66 (55.0,112.5)
50 to <65 yrs	11.27 (6.3,20.3)	21.30 (14.5,31.2)	36.06 (26.3,49.4)	53.88 (40.6,71.5)	65.64 (51.1,84.3)	75.37 (57.6,98.5)	95.56 (71.2,128.2)
65+ yrs	6.72 (4.7,9.6)	13.90 (9.9,19.5)	25.24 (18.5,34.5)	39.64 (28.6,55.0)	51.67 (38.8,68.9)	58.70 (41.7,82.6)	72.65 (45.8,115.3)
Women of Childbearing Age <sup>1</sup>	4.01 (2.2,7.3)	11.21 (7.7,16.4)	21.53 (16.8,27.5)	34.99 (28.6,42.9)	45.62 (37.2,56.0)	53.36 (43.0,66.2)	67.82 (53.6,85.8)
<b>Income</b>							
<\$20,000	4.47 (2.8,7.1)	11.97 (9.2,15.6)	23.26 (18.8,28.7)	37.42 (30.2,46.4)	48.81 (38.5,61.9)	57.88 (46.0,72.7)	83.56 (63.1,110.6)
\$20k-\$45k	6.32 (3.6,11.1)	13.81 (10.1,18.8)	24.56 (19.9,30.3)	39.26 (32.2,47.8)	51.10 (41.9,62.3)	59.00 (48.2,72.2)	77.40 (60.0,99.9)
\$45k-\$75k	6.94 (4.6,10.5)	15.30 (11.1,21.1)	27.60 (21.2,35.9)	43.26 (34.0,55.0)	55.12 (42.5,71.4)	63.46 (48.0,84.0)	81.60 (58.5,113.9)
\$75k+	9.99 (6.9,14.4)	19.35 (15.4,24.3)	33.90 (27.5,41.9)	51.38 (41.8,63.1)	62.26 (50.2,77.3)	71.28 (56.9,89.3)	90.52 (69.7,117.6)
>\$20,000	7.58 (3.9,14.6)	16.85 (9.2,30.9)	27.98 (18.5,42.3)	42.57 (28.7,63.2)	54.01 (36.3,80.3)	61.71 (41.6,91.5)	83.36 (52.9,131.4)
Inc Ref/DK	8.18 (2.1,32.2)	18.29 (7.6,44.0)	31.87 (17.2,58.9)	51.22 (27.2,96.5)	62.13 (36.6,105.5)	72.31 (40.2,130.2)	85.30 (55.2,131.7)
Inc missing	7.83 (1.0,59.5)	19.30 (4.3,87.3)	31.80 (12.2,83.1)	54.39 (21.2,139.3)	63.67 (30.6,132.5)	89.96 (29.1,277.9)	108.79 (39.6,299.0)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	6.35 (3.0,13.3)	16.02 (9.6,26.7)	28.10 (19.9,39.7)	43.86 (32.8,58.7)	55.33 (42.2,72.5)	63.75 (48.6,83.7)	79.80 (56.4,112.8)
Other Hispanic	6.89 (3.5,13.6)	15.06 (10.4,21.7)	27.81 (20.0,38.7)	46.89 (30.9,71.2)	59.47 (39.2,90.2)	67.60 (46.5,98.3)	79.52 (55.0,115.1)
Non-Hispanic White	6.89 (4.4,10.9)	14.59 (11.4,18.7)	26.22 (21.4,32.1)	41.70 (33.9,51.3)	52.74 (41.7,66.7)	60.42 (46.5,78.5)	78.18 (58.7,104.1)
Non-Hispanic Black	8.89 (5.2,15.3)	17.85 (12.9,24.6)	30.74 (24.2,39.0)	46.59 (38.2,56.9)	58.00 (47.6,70.7)	66.16 (54.0,81.1)	82.63 (64.4,106.1)
Other race	15.15 (7.2,31.9)	28.78 (17.6,47.1)	49.09 (31.3,77.0)	71.11 (51.3,98.5)	89.81 (66.0,122.1)	105.37 (75.2,147.7)	131.76 (89.0,195.1)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as “Mexican American” were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified “Hispanic” ethnicity was coded as “Other Hispanic.” All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 6b. UFCR Estimates (g/day): Total Fish, Adults, 21 years and older, by geography

<i>Total Fish</i> Adults ≥21 years old	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>All Adults</b>	7.27 (4.5,11.7)	15.73 (11.9,20.7)	28.31 (23.1,34.6)	44.83 (37.1,54.2)	56.75 (46.7,69.0)	65.15 (52.8,80.3)	85.30 (67.9,107.2)
<b>Region<sup>1</sup></b>							
Midwest	5.25 (3.2,8.7)	11.33 (8.1,15.8)	20.03 (15.3,26.2)	31.52 (23.5,42.4)	41.40 (31.2,54.9)	46.68 (32.8,66.5)	63.61 (47.1,85.9)
Northeast	9.03 (5.7,14.3)	20.29 (15.1,27.2)	35.94 (27.8,46.5)	54.03 (42.1,69.3)	66.55 (51.8,85.5)	75.85 (58.3,98.8)	94.75 (70.2,128.0)
South	7.92 (4.2,14.8)	16.60 (11.6,23.7)	29.05 (22.9,36.8)	45.64 (36.9,56.5)	58.23 (47.0,72.2)	67.39 (53.9,84.3)	93.86 (69.9,126.1)
West	8.74 (5.7,13.4)	17.66 (13.3,23.5)	30.76 (23.9,39.5)	47.81 (36.8,62.1)	58.34 (46.3,73.5)	65.39 (50.9,84.1)	78.63 (53.8,115.0)
<b>Coastal Status</b>							
Noncoastal	6.67 (3.5,12.6)	14.52 (10.0,21.1)	25.95 (20.0,33.6)	41.75 (31.9,54.7)	52.71 (40.8,68.0)	60.55 (46.8,78.3)	78.78 (59.3,104.6)
Coastal	8.59 (6.3,11.7)	17.73 (14.2,22.2)	31.48 (25.4,39.0)	49.69 (40.5,61.0)	62.13 (49.9,77.4)	71.62 (57.1,89.9)	92.02 (70.1,120.9)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	7.79 (5.3,11.5)	17.15 (12.8,23.0)	30.08 (23.6,38.3)	47.56 (38.5,58.7)	57.07 (43.7,74.4)	64.78 (47.7,88.0)	78.00 (46.7,130.4)
Atlantic	9.80 (6.6,14.6)	19.47 (13.7,27.7)	33.19 (23.0,47.9)	50.48 (35.3,72.2)	63.05 (45.1,88.2)	71.48 (50.4,101.4)	91.63 (65.4,128.5)
Gulf of Mexico	10.20 (5.0,20.8)	21.69 (12.4,37.8)	40.39 (24.3,67.1)	63.32 (40.9,98.1)	82.49 (52.9,128.6)	97.58 (59.7,159.5)	126.36 (78.3,203.9)
Great Lakes	5.71 (3.6,9.1)	12.36 (8.4,18.3)	23.38 (16.8,32.6)	36.31 (24.4,54.0)	47.37 (33.0,68.0)	55.98 (40.1,78.1)	78.34 (59.4,103.3)
Inland Northeast	7.36 (4.0,13.5)	19.85 (12.0,32.8)	35.86 (22.9,56.2)	54.30 (35.6,82.9)	69.02 (43.9,108.6)	78.14 (50.9,119.9)	95.75 (63.1,145.2)
Inland Midwest	5.13 (2.7,9.8)	11.12 (7.2,17.2)	19.30 (14.3,26.1)	29.65 (22.4,39.2)	40.05 (29.7,54.0)	45.24 (33.9,60.3)	59.71 (44.6,79.9)
Inland South	7.02 (2.8,17.5)	15.03 (8.7,26.0)	25.43 (18.8,34.3)	39.37 (30.9,50.2)	49.99 (40.0,62.4)	56.86 (45.8,70.6)	74.52 (57.3,96.9)
Inland West	9.61 (4.7,19.5)	18.22 (11.8,28.1)	32.02 (20.3,50.4)	48.00 (31.8,72.4)	59.09 (40.4,86.4)	65.89 (46.1,94.2)	79.17 (54.4,115.2)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 7a. UFCR Estimates (g/day): Freshwater + Estuarine Fish, Adults, 21 years and older, by demographics

<i>Freshwater+Estuarine Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	1.93 (1.1,3.3)	4.93 (3.0,8.0)	10.99 (8.0,15.1)	20.90 (16.6,26.3)	29.74 (23.5,37.6)	36.80 (28.3,47.8)	57.09 (40.1,81.2)
<b>Gender</b>							
Female	1.63 (1.0,2.8)	4.16 (2.5,6.8)	9.15 (6.3,13.2)	17.20 (13.0,22.7)	24.63 (18.8,32.3)	31.06 (23.4,41.3)	46.02 (32.6,65.0)
Male	2.50 (1.5,4.3)	6.13 (3.8,10.0)	13.56 (10.1,18.2)	25.09 (19.9,31.6)	35.13 (27.2,45.3)	43.32 (32.9,57.1)	64.41 (45.9,90.4)
<b>Age</b>							
21 to <35 yrs	1.62 (1.0,2.6)	4.48 (3.2,6.2)	10.30 (8.1,13.2)	20.52 (15.6,26.9)	29.91 (22.3,40.2)	37.39 (27.7,50.5)	63.76 (36.5,111.4)
35 to <50 yrs	1.92 (1.1,3.4)	4.82 (2.8,8.3)	10.88 (7.1,16.6)	20.91 (14.9,29.4)	29.98 (21.4,42.0)	38.00 (26.9,53.8)	56.84 (38.1,84.8)
50 to <65 yrs	2.73 (1.4,5.4)	6.32 (3.7,10.7)	12.85 (8.9,18.4)	23.11 (17.6,30.4)	31.87 (24.1,42.2)	38.28 (28.1,52.1)	57.09 (38.3,85.1)
65+ yrs	1.66 (0.6,4.8)	4.27 (1.9,9.7)	9.42 (5.3,16.6)	17.70 (11.8,26.5)	25.00 (17.7,35.4)	31.28 (23.1,42.4)	45.01 (32.0,63.3)
Women of Childbearing Age <sup>1</sup>	1.09 (0.7,1.7)	3.26 (2.1,5.0)	7.86 (5.5,11.2)	15.79 (11.9,21.0)	23.70 (18.1,31.0)	29.90 (22.2,40.2)	46.38 (32.4,66.4)
<b>Income</b>							
<\$20,000	1.44 (0.8,2.6)	4.34 (2.8,6.7)	10.11 (7.2,14.2)	19.24 (14.2,26.1)	28.33 (21.7,36.9)	34.81 (25.7,47.1)	58.09 (37.4,90.2)
\$20k-\$45k	1.69 (0.9,3.1)	4.34 (2.4,7.8)	9.73 (6.4,14.7)	18.13 (12.6,26.0)	26.82 (20.1,35.8)	33.30 (24.3,45.6)	54.19 (36.8,79.7)
\$45k-\$75k	1.82 (1.1,3.1)	4.71 (3.2,7.0)	10.36 (7.7,14.0)	19.28 (14.8,25.1)	26.33 (19.4,35.8)	33.11 (24.2,45.4)	53.44 (33.7,84.8)
\$75k+	2.42 (1.1,5.2)	5.66 (2.8,11.3)	12.61 (8.4,19.0)	23.62 (17.8,31.4)	34.06 (26.2,44.3)	41.31 (30.9,55.3)	62.84 (42.0,94.1)
>\$20,000	2.26 (1.1,4.5)	5.89 (3.3,10.7)	12.27 (6.9,21.9)	22.36 (11.2,44.8)	29.72 (15.6,56.7)	37.96 (17.3,83.3)	51.37 (25.4,103.9)
Inc Ref/DK	2.42 (1.2,4.8)	6.60 (3.5,12.5)	14.54 (7.1,29.8)	26.10 (12.7,53.5)	33.66 (18.0,63.1)	39.71 (21.8,72.3)	50.89 (28.5,90.9)
Inc missing	3.55 (0.5,26.8)	7.54 (2.3,25.0)	16.14 (5.5,47.5)	29.99 (10.4,86.7)	38.76 (15.0,99.9)	56.84 (16.5,195.4)	66.74 (26.6,167.2)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	2.39 (1.4,4.0)	6.47 (4.1,10.1)	13.40 (8.3,21.6)	24.78 (16.5,37.3)	32.70 (19.4,55.2)	38.63 (20.9,71.4)	53.80 (26.5,109.3)
Other Hispanic	2.34 (1.4,3.9)	5.93 (3.5,10.0)	12.85 (8.0,20.7)	27.60 (17.7,43.1)	41.19 (22.0,77.3)	53.33 (24.3,117.0)	76.96 (32.7,181.1)
Non-Hispanic White	1.67 (0.9,3.1)	4.17 (2.4,7.3)	9.04 (5.8,14.0)	16.99 (12.3,23.4)	23.76 (17.2,32.7)	29.73 (22.0,40.1)	42.53 (30.0,60.2)
Non-Hispanic Black	2.88 (1.6,5.1)	7.04 (4.6,10.9)	14.10 (10.0,19.9)	24.54 (18.3,33.0)	33.01 (23.9,45.7)	40.13 (29.1,55.3)	60.52 (40.2,91.1)
Other race	5.20 (3.0,9.0)	13.23 (7.1,24.8)	25.91 (14.8,45.5)	46.42 (25.8,83.6)	64.67 (34.0,123.0)	78.09 (41.9,145.6)	103.85 (59.7,180.8)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 7b. UFCR Estimates (g/day): Freshwater + Estuarine Fish, Adults, 21 years and older, by geography

<i>Freshwater+Estuarine Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	1.93 (1.1,3.3)	4.93 (3.0,8.0)	10.99 (8.0,15.1)	20.90 (16.6,26.3)	29.74 (23.5,37.6)	36.80 (28.3,47.8)	57.09 (40.1,81.2)
<b>Region<sup>1</sup></b>							
Midwest	1.22 (0.6,2.6)	3.09 (1.5,6.4)	6.57 (3.2,13.3)	12.43 (6.8,22.8)	17.80 (9.9,31.9)	22.74 (13.6,38.0)	39.41 (26.4,58.7)
Northeast	2.48 (1.4,4.3)	6.49 (4.4,9.5)	14.03 (11.0,17.9)	24.64 (19.1,31.7)	32.84 (25.3,42.6)	38.84 (29.6,51.0)	52.54 (37.1,74.4)
South	2.57 (1.6,4.1)	6.36 (4.3,9.4)	13.61 (10.0,18.5)	24.35 (18.1,32.7)	34.28 (25.2,46.5)	42.02 (30.4,58.1)	61.89 (43.6,87.9)
West	2.01 (1.1,3.8)	4.84 (2.7,8.7)	10.39 (6.6,16.4)	20.12 (14.3,28.3)	29.63 (20.3,43.2)	36.98 (24.7,55.4)	60.44 (33.1,110.2)
<b>Coastal Status</b>							
Noncoastal	1.63 (0.9,2.8)	4.24 (2.6,7.0)	9.53 (6.8,13.4)	17.83 (13.4,23.8)	25.64 (19.3,34.1)	31.68 (23.1,43.5)	47.34 (32.0,70.0)
Coastal	2.59 (1.4,4.9)	6.23 (3.6,10.9)	13.67 (9.5,19.6)	25.09 (18.8,33.5)	35.64 (27.0,47.1)	44.97 (33.5,60.3)	67.62 (46.7,97.9)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	2.18 (1.0,4.8)	5.19 (2.5,10.7)	11.30 (6.6,19.2)	21.73 (14.1,33.5)	31.66 (20.5,49.0)	39.32 (25.0,61.9)	61.40 (34.9,107.9)
Atlantic	2.95 (1.2,7.2)	6.66 (3.1,14.3)	13.50 (7.8,23.4)	23.50 (15.7,35.1)	31.21 (21.1,46.1)	37.43 (25.9,54.1)	51.57 (35.0,76.0)
Gulf of Mexico	5.47 (2.3,12.9)	13.29 (7.3,24.4)	24.59 (15.2,39.7)	42.50 (29.3,61.7)	59.13 (42.1,83.1)	67.01 (47.1,95.3)	95.98 (65.5,140.6)
Great Lakes	1.59 (0.7,3.5)	4.07 (2.2,7.5)	8.65 (5.3,14.2)	17.69 (11.9,26.2)	27.18 (16.4,45.1)	38.56 (17.7,83.9)	79.58 (15.8,400.6)
Inland Northeast	1.98 (0.9,4.2)	6.05 (3.7,9.9)	13.62 (8.7,21.4)	25.06 (14.7,42.8)	33.53 (19.9,56.6)	38.93 (24.1,62.8)	54.57 (33.4,89.2)
Inland Midwest	1.14 (0.5,2.4)	2.88 (1.4,5.9)	6.09 (3.0,12.5)	11.15 (5.5,22.8)	15.55 (7.5,32.4)	19.63 (10.0,38.5)	27.89 (13.4,58.2)
Inland South	2.12 (1.4,3.2)	5.42 (3.9,7.5)	11.44 (8.6,15.2)	20.33 (15.1,27.3)	27.77 (20.3,38.0)	33.55 (23.9,47.1)	49.59 (32.7,75.3)
Inland West	1.85 (0.9,3.8)	4.49 (2.4,8.4)	9.41 (5.4,16.4)	17.99 (11.3,28.7)	27.97 (16.8,46.5)	34.96 (19.8,61.7)	57.44 (24.9,132.6)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 8a. UFCR Estimates (g/day): Marine Fish, Adults, 21 years and older, by demographics

<i>Marine Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	3.93 (2.2,6.9)	9.15 (6.2,13.4)	17.36 (13.4,22.6)	28.32 (22.7,35.4)	36.93 (29.5,46.3)	43.24 (33.8,55.3)	59.03 (45.4,76.7)
<b>Gender</b>							
Female	3.59 (1.9,6.9)	8.44 (5.4,13.2)	15.83 (11.9,21.0)	26.03 (20.4,33.2)	33.80 (26.7,42.7)	39.54 (30.8,50.7)	53.12 (40.8,69.1)
Male	4.43 (2.7,7.2)	10.20 (7.2,14.4)	19.21 (15.0,24.7)	31.36 (24.9,39.5)	40.57 (31.6,52.1)	47.92 (36.9,62.2)	64.05 (47.7,86.0)
<b>Age</b>							
21 to <35 yrs	2.72 (1.2,6.1)	7.26 (3.9,13.5)	14.09 (9.9,20.0)	23.75 (18.4,30.6)	32.01 (25.2,40.6)	37.98 (29.7,48.5)	52.46 (38.2,72.0)
35 to <50 yrs	4.08 (2.7,6.2)	8.98 (6.6,12.3)	16.22 (12.6,20.8)	25.71 (18.8,35.1)	32.97 (22.4,48.6)	38.15 (24.3,59.9)	49.80 (28.9,85.8)
50 to <65 yrs	6.18 (3.1,12.3)	13.10 (7.4,23.2)	23.73 (14.7,38.4)	37.49 (24.2,58.2)	48.33 (30.8,75.9)	56.36 (35.8,88.8)	70.75 (48.8,102.6)
65+ yrs	3.69 (2.3,6.0)	8.43 (5.8,12.2)	16.32 (12.2,21.8)	26.30 (18.6,37.2)	34.06 (23.1,50.3)	39.34 (25.0,61.9)	51.11 (30.3,86.1)
Women of Childbearing Age <sup>1</sup>	2.30 (1.2,4.3)	6.69 (4.0,11.2)	13.24 (10.0,17.6)	21.96 (17.8,27.1)	29.09 (23.4,36.2)	34.16 (26.6,43.9)	44.94 (31.7,63.7)
<b>Income</b>							
<\$20,000	2.38 (1.5,3.9)	6.64 (4.7,9.4)	13.68 (10.4,17.9)	23.47 (18.4,29.9)	31.73 (24.8,40.5)	37.51 (28.5,49.3)	52.93 (38.5,72.8)
\$20k-\$45k	3.28 (1.7,6.3)	7.78 (4.9,12.3)	14.83 (10.9,20.2)	24.76 (19.1,32.2)	33.08 (25.3,43.2)	38.41 (29.3,50.3)	51.69 (38.4,69.6)
\$45k-\$75k	3.87 (2.3,6.4)	8.96 (6.0,13.4)	16.95 (12.4,23.3)	27.66 (20.6,37.2)	36.28 (27.1,48.5)	43.17 (31.7,58.7)	60.72 (44.6,82.7)
\$75k+	5.88 (3.3,10.6)	11.61 (8.5,15.9)	20.82 (16.4,26.4)	32.66 (26.0,41.0)	41.76 (32.7,53.4)	48.14 (37.0,62.6)	61.76 (45.1,84.6)
>\$20,000	3.93 (1.9,8.2)	8.83 (4.9,15.9)	16.61 (10.1,27.3)	27.18 (17.0,43.4)	33.96 (21.2,54.3)	41.21 (25.6,66.2)	59.38 (33.0,106.7)
Inc Ref/DK	4.62 (1.2,17.8)	11.39 (4.0,32.7)	21.06 (9.5,46.7)	31.40 (18.9,52.2)	39.90 (26.0,61.2)	43.96 (30.4,63.6)	66.21 (34.0,129.1)
Inc missing	3.72 (0.8,18.3)	8.51 (3.4,21.2)	17.84 (7.8,40.5)	29.85 (14.8,60.2)	39.09 (20.1,75.9)	46.58 (24.6,88.1)	60.92 (33.1,112.2)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	2.95 (1.6,5.6)	8.05 (4.3,15.1)	15.34 (9.2,25.5)	24.60 (16.6,36.5)	32.61 (22.0,48.3)	37.82 (26.9,53.2)	51.54 (36.7,72.4)
Other Hispanic	3.35 (1.7,6.5)	7.80 (5.0,12.1)	14.71 (10.5,20.6)	23.59 (16.7,33.3)	31.29 (21.4,45.8)	38.13 (26.3,55.4)	49.20 (28.2,85.9)
Non-Hispanic White	3.89 (2.3,6.6)	8.96 (6.3,12.8)	16.94 (13.2,21.8)	27.72 (21.6,35.6)	36.21 (27.7,47.3)	42.70 (32.2,56.6)	58.28 (43.9,77.3)
Non-Hispanic Black	3.99 (1.9,8.2)	9.10 (5.4,15.3)	17.17 (11.7,25.3)	27.88 (20.3,38.2)	35.39 (27.5,45.5)	40.86 (31.8,52.5)	52.99 (38.7,72.6)
Other race	7.38 (4.2,13.0)	16.13 (9.8,26.7)	27.20 (19.8,37.3)	40.91 (32.3,51.9)	52.09 (39.7,68.3)	62.58 (45.3,86.5)	83.12 (55.7,124.1)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 8b. UFCR Estimates (g/day): Marine Fish, Adults, 21 years and older, by geography

<i>Marine Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	3.93 (2.2,6.9)	9.15 (6.2,13.4)	17.36 (13.4,22.6)	28.32 (22.7,35.4)	36.93 (29.5,46.3)	43.24 (33.8,55.3)	59.03 (45.4,76.7)
<b>Region<sup>1</sup></b>							
Midwest	2.92 (1.4,5.9)	6.80 (4.0,11.5)	13.22 (8.6,20.4)	22.25 (15.2,32.7)	29.10 (20.6,41.1)	33.97 (23.7,48.7)	49.65 (34.1,72.3)
Northeast	5.13 (3.4,7.8)	12.20 (9.2,16.2)	22.32 (17.4,28.6)	35.79 (27.7,46.2)	44.96 (34.0,59.5)	52.36 (39.4,69.6)	70.86 (53.2,94.5)
South	3.78 (2.1,6.8)	8.60 (5.7,12.9)	16.07 (12.1,21.3)	26.22 (20.6,33.4)	34.13 (26.5,43.9)	39.92 (29.9,53.3)	54.34 (38.9,75.9)
West	5.35 (2.9,9.8)	11.28 (7.5,17.0)	19.94 (15.0,26.6)	32.08 (24.2,42.4)	40.59 (31.2,52.8)	47.22 (36.3,61.4)	60.20 (45.0,80.6)
<b>Coastal Status</b>							
Noncoastal	3.72 (1.8,7.9)	8.66 (5.1,14.7)	16.51 (11.2,24.4)	27.30 (19.7,37.8)	35.98 (26.3,49.2)	42.54 (31.1,58.2)	58.94 (41.4,84.0)
Coastal	4.30 (3.0,6.2)	9.98 (7.5,13.3)	18.64 (14.2,24.5)	29.85 (21.8,40.9)	38.38 (27.0,54.6)	44.17 (29.2,66.7)	59.25 (39.9,88.0)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	4.84 (3.1,7.6)	10.68 (7.7,14.8)	19.09 (14.3,25.5)	30.89 (23.6,40.4)	39.14 (29.2,52.5)	43.79 (29.3,65.4)	54.14 (30.4,96.3)
Atlantic	5.29 (3.2,8.7)	11.16 (7.1,17.4)	20.25 (13.2,31.1)	30.95 (18.7,51.2)	39.70 (24.0,65.5)	45.57 (26.6,78.1)	60.79 (36.5,101.3)
Gulf of Mexico	3.32 (1.7,6.3)	8.16 (4.1,16.3)	16.51 (9.1,30.0)	27.87 (17.4,44.5)	37.47 (23.0,61.0)	44.21 (27.6,70.9)	60.92 (33.1,112.0)
Great Lakes	2.61 (1.3,5.1)	6.73 (3.9,11.7)	13.43 (7.6,23.7)	24.52 (16.1,37.3)	32.64 (20.6,51.8)	39.20 (25.1,61.2)	62.01 (41.3,93.2)
Inland Northeast	4.44 (2.5,8.0)	12.31 (7.5,20.3)	22.83 (15.3,34.0)	37.42 (24.8,56.4)	48.31 (31.8,73.4)	56.54 (36.9,86.5)	76.33 (46.9,124.2)
Inland Midwest	2.98 (1.2,7.5)	6.81 (3.3,13.9)	13.14 (6.8,25.6)	21.41 (12.0,38.2)	27.96 (16.4,47.7)	33.06 (19.6,55.8)	46.18 (26.1,81.8)
Inland South	3.49 (1.5,8.1)	8.01 (4.4,14.5)	14.65 (9.7,22.1)	23.34 (17.3,31.4)	31.14 (22.8,42.4)	36.74 (27.2,49.5)	49.10 (34.8,69.2)
Inland West	5.86 (2.4,14.3)	11.76 (6.3,21.8)	20.64 (12.4,34.2)	33.58 (19.6,57.5)	42.99 (25.2,73.4)	51.78 (28.2,95.2)	64.07 (39.7,103.3)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 9a. UFCR Estimates (g/day): Total Finfish, Adults, 21 years and older, by demographics

<i>Finfish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	4.33 (2.8,6.8)	9.69 (7.2,13.0)	18.01 (14.1,23.0)	29.82 (23.6,37.7)	39.25 (30.8,50.0)	46.36 (36.2,59.4)	62.16 (47.9,80.7)
<b>Gender</b>							
Female	3.89 (2.4,6.4)	8.71 (6.5,11.7)	16.36 (12.7,21.1)	26.82 (20.8,34.5)	34.68 (26.6,45.2)	40.98 (31.3,53.6)	55.53 (42.2,73.1)
Male	5.10 (3.3,7.9)	11.11 (8.2,15.0)	20.04 (15.5,25.9)	33.90 (26.8,42.9)	44.68 (35.2,56.7)	51.56 (39.9,66.6)	70.67 (55.5,90.1)
<b>Age</b>							
21 to <35 yrs	3.13 (1.2,7.9)	7.80 (4.5,13.4)	15.74 (10.5,23.6)	27.51 (19.6,38.7)	36.73 (27.6,49.0)	45.27 (33.5,61.1)	61.69 (46.4,82.1)
35 to <50 yrs	4.21 (3.0,5.8)	9.04 (7.0,11.7)	16.22 (12.1,21.8)	26.57 (19.6,35.9)	35.48 (26.6,47.3)	41.97 (31.2,56.4)	55.74 (40.8,76.2)
50 to <65 yrs	7.16 (3.8,13.5)	13.66 (9.1,20.5)	23.96 (16.9,34.0)	37.45 (27.0,52.0)	47.14 (34.5,64.4)	54.81 (39.8,75.5)	70.19 (51.2,96.2)
65+ yrs	4.42 (2.9,6.6)	9.23 (6.1,13.9)	16.68 (10.8,25.7)	26.94 (17.2,42.2)	34.85 (21.6,56.1)	41.21 (25.8,65.9)	54.23 (31.7,92.6)
Women of Childbearing Age <sup>1</sup>	2.30 (1.3,3.9)	6.62 (4.7,9.3)	13.39 (10.4,17.3)	23.05 (18.0,29.4)	30.80 (24.0,39.6)	37.14 (28.7,48.1)	50.93 (38.7,67.1)
<b>Income</b>							
<\$20,000	2.80 (1.7,4.7)	7.54 (5.6,10.1)	15.15 (11.9,19.3)	26.02 (20.4,33.3)	35.23 (27.4,45.3)	42.94 (33.1,55.7)	59.92 (44.6,80.4)
\$20k-\$45k	3.80 (2.5,5.9)	8.57 (6.4,11.4)	15.89 (11.8,21.4)	26.49 (19.5,35.9)	35.55 (26.3,48.0)	42.79 (31.7,57.8)	58.28 (42.2,80.5)
\$45k-\$75k	4.21 (2.7,6.6)	9.39 (6.7,13.2)	17.63 (13.0,23.9)	29.83 (22.3,39.9)	39.51 (29.2,53.4)	46.49 (34.4,62.9)	61.54 (44.7,84.8)
\$75k+	5.90 (3.7,9.3)	11.70 (8.7,15.7)	20.69 (16.1,26.6)	33.09 (25.9,42.3)	42.90 (33.5,54.9)	49.34 (38.0,64.0)	64.88 (49.1,85.8)
>\$20,000	5.17 (2.4,10.9)	11.17 (5.9,21.2)	18.67 (11.9,29.3)	31.63 (19.4,51.4)	41.56 (25.4,68.1)	47.52 (29.7,76.0)	64.77 (39.0,107.6)
Inc Ref/DK	4.24 (1.2,14.6)	10.05 (4.6,22.1)	18.27 (10.3,32.5)	30.90 (17.7,53.8)	39.51 (23.3,66.9)	45.66 (28.1,74.3)	52.65 (33.0,83.9)
Inc missing	4.42 (0.8,25.9)	11.38 (3.0,43.8)	19.41 (7.6,49.3)	40.63 (12.9,127.5)	62.28 (15.1,256.3)	71.34 (19.6,259.9)	79.19 (33.8,185.7)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	3.72 (1.6,8.5)	9.22 (5.5,15.3)	17.31 (11.8,25.5)	28.40 (20.4,39.6)	37.92 (27.4,52.5)	44.51 (32.4,61.2)	58.73 (41.6,82.9)
Other Hispanic	3.67 (1.9,7.0)	8.02 (5.2,12.3)	15.96 (11.1,23.0)	28.46 (19.0,42.7)	39.06 (24.8,61.5)	48.60 (27.9,84.6)	68.53 (35.5,132.3)
Non-Hispanic White	4.16 (2.7,6.5)	9.05 (6.8,12.0)	16.50 (12.6,21.6)	27.08 (20.7,35.5)	35.37 (26.7,46.8)	42.21 (32.0,55.8)	55.55 (40.7,75.8)
Non-Hispanic Black	5.53 (3.1,9.9)	11.77 (8.4,16.5)	21.04 (16.2,27.3)	32.72 (24.7,43.3)	42.43 (32.2,55.9)	49.08 (36.5,66.0)	63.98 (45.5,89.9)
Other race	9.28 (5.1,16.8)	19.45 (12.2,30.9)	33.79 (24.1,47.4)	51.47 (39.6,66.9)	64.68 (49.3,84.8)	76.63 (57.7,101.8)	101.62 (72.5,142.4)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 9b. UFCR Estimates (g/day): Total Finfish, Adults, 21 years and older, by geography

<i>Finfish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	4.33 (2.8,6.8)	9.69 (7.2,13.0)	18.01 (14.1,23.0)	29.82 (23.6,37.7)	39.25 (30.8,50.0)	46.36 (36.2,59.4)	62.16 (47.9,80.7)
<b>Region<sup>1</sup></b>							
Midwest	3.46 (1.9,6.4)	7.53 (5.0,11.2)	13.90 (10.0,19.4)	22.52 (15.9,31.8)	29.42 (20.3,42.6)	34.34 (22.8,51.7)	45.94 (29.2,72.3)
Northeast	4.68 (2.8,7.8)	10.83 (7.7,15.2)	20.15 (14.9,27.2)	32.43 (24.0,43.7)	42.51 (32.0,56.4)	49.43 (36.7,66.5)	61.50 (42.6,88.7)
South	4.43 (2.9,6.9)	9.82 (7.4,13.0)	18.34 (14.6,23.1)	30.77 (24.5,38.6)	41.57 (32.9,52.5)	49.09 (38.6,62.4)	68.72 (52.4,90.1)
West	5.50 (3.5,8.7)	11.42 (8.3,15.7)	20.56 (15.2,27.7)	33.37 (24.9,44.7)	43.13 (32.0,58.1)	49.58 (36.7,67.0)	63.78 (46.0,88.5)
<b>Coastal Status</b>							
Noncoastal	4.25 (2.2,8.4)	9.41 (6.2,14.2)	17.22 (12.6,23.6)	28.30 (20.8,38.5)	37.18 (27.2,50.8)	44.49 (31.9,62.1)	59.59 (42.2,84.0)
Coastal	4.46 (2.9,6.8)	10.11 (7.1,14.4)	19.35 (14.1,26.6)	32.10 (23.5,43.9)	42.40 (31.3,57.4)	49.31 (34.7,70.2)	64.60 (41.5,100.7)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	4.81 (3.1,7.4)	10.46 (7.0,15.5)	19.46 (13.5,28.1)	31.64 (22.0,45.5)	41.98 (29.8,59.1)	47.91 (32.0,71.7)	61.39 (37.3,101.0)
Atlantic	4.92 (2.5,9.8)	10.63 (5.9,19.1)	19.71 (11.5,33.8)	32.33 (20.2,51.6)	41.52 (26.0,66.2)	48.72 (30.7,77.2)	62.38 (37.4,104.2)
Gulf of Mexico	4.15 (2.3,7.5)	10.35 (5.6,19.2)	21.27 (12.8,35.3)	39.99 (22.2,72.0)	51.16 (29.5,88.6)	62.44 (36.5,106.7)	87.20 (53.2,142.8)
Great Lakes	3.28 (1.7,6.2)	7.81 (4.7,13.0)	16.14 (11.0,23.6)	26.25 (17.0,40.5)	33.30 (19.7,56.4)	38.84 (22.1,68.2)	50.24 (24.6,102.6)
Inland Northeast	4.16 (1.9,9.3)	10.49 (6.0,18.2)	19.59 (12.3,31.3)	31.54 (20.1,49.6)	42.49 (25.6,70.6)	49.34 (30.1,80.8)	64.36 (39.1,105.9)
Inland Midwest	3.51 (1.6,7.8)	7.46 (4.4,12.5)	13.37 (9.1,19.7)	21.42 (15.1,30.4)	27.66 (19.5,39.3)	32.61 (22.7,46.9)	44.71 (31.2,64.1)
Inland South	4.36 (2.1,9.2)	9.65 (6.3,14.8)	17.43 (13.2,23.0)	28.90 (22.0,37.9)	38.14 (29.2,49.9)	45.41 (34.1,60.5)	62.91 (43.9,90.0)
Inland West	6.37 (2.7,14.8)	12.46 (7.0,22.0)	21.80 (12.8,37.1)	35.00 (19.9,61.5)	45.08 (26.0,78.3)	51.03 (31.2,83.6)	66.40 (40.9,107.8)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 10a. UFCR Estimates (g/day): Total Shellfish, Adults, 21 years and older, by demographics

<i>Shellfish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	1.03 (0.5,2.2)	3.01 (1.7,5.4)	7.56 (4.6,12.5)	15.99 (10.6,24.2)	24.18 (16.9,34.5)	30.09 (20.8,43.5)	45.50 (31.9,64.9)
<b>Gender</b>							
Female	0.87 (0.4,1.8)	2.54 (1.4,4.5)	6.29 (3.8,10.3)	13.21 (8.8,19.8)	19.65 (13.7,28.2)	24.33 (16.8,35.3)	36.72 (25.6,52.7)
Male	1.36 (0.7,2.8)	3.77 (2.0,7.2)	9.34 (5.5,16.0)	19.96 (13.3,29.9)	29.28 (20.3,42.3)	37.02 (26.2,52.3)	52.89 (36.0,77.7)
<b>Age</b>							
21 to <35 yrs	0.91 (0.5,1.6)	2.79 (1.8,4.4)	7.07 (4.9,10.3)	15.25 (10.9,21.3)	23.19 (16.4,32.9)	29.32 (20.8,41.4)	45.67 (31.2,66.8)
35 to <50 yrs	1.22 (0.6,2.5)	3.42 (1.9,6.0)	8.29 (4.9,13.9)	17.39 (10.9,27.8)	26.33 (16.6,41.9)	33.10 (20.2,54.1)	49.86 (29.3,84.8)
50 to <65 yrs	1.39 (0.5,3.7)	3.70 (1.7,8.3)	8.81 (4.6,16.8)	17.69 (10.5,29.9)	25.40 (15.8,40.8)	30.66 (18.9,49.8)	44.79 (30.0,66.9)
65+ yrs	0.65 (0.2,1.9)	1.92 (0.8,4.7)	5.03 (2.1,11.8)	11.56 (5.8,23.1)	18.25 (10.4,32.0)	23.74 (14.2,39.7)	37.46 (25.3,55.4)
Women of Childbearing Age <sup>1</sup>	0.69 (0.4,1.3)	2.24 (1.4,3.7)	5.85 (3.8,8.9)	12.53 (8.6,18.4)	18.66 (12.8,27.1)	24.02 (16.8,34.4)	37.23 (25.2,55.0)
<b>Income</b>							
<\$20,000	0.65 (0.3,1.6)	2.05 (1.0,4.1)	5.52 (3.2,9.6)	12.05 (7.6,19.1)	18.57 (12.1,28.4)	23.88 (15.7,36.2)	39.56 (26.9,58.2)
\$20k-\$45k	0.88 (0.5,1.6)	2.50 (1.5,4.1)	6.28 (4.2,9.5)	13.81 (9.1,21.0)	20.43 (13.7,30.6)	25.21 (17.8,35.7)	38.84 (27.4,55.1)
\$45k-\$75k	1.01 (0.4,2.6)	2.93 (1.4,6.0)	7.38 (4.1,13.2)	15.80 (9.8,25.5)	23.53 (14.9,37.1)	29.00 (18.1,46.5)	43.18 (27.6,67.6)
\$75k+	1.54 (0.6,3.8)	4.08 (1.9,8.9)	9.44 (4.5,20.0)	19.69 (11.6,33.4)	28.64 (18.0,45.5)	35.29 (22.1,56.2)	50.60 (31.8,80.5)
>\$20,000	1.03 (0.4,2.8)	2.87 (1.2,6.8)	6.98 (3.4,14.4)	13.18 (6.2,28.2)	20.43 (10.1,41.1)	24.30 (11.7,50.3)	37.71 (18.8,75.6)
Inc Ref/DK	1.73 (0.9,3.4)	5.13 (2.7,9.6)	12.28 (6.9,22.0)	26.56 (12.8,55.0)	39.43 (16.8,92.7)	55.89 (16.4,191.0)	68.50 (29.3,160.0)
Inc missing	1.03 (0.3,3.8)	2.90 (0.9,9.6)	7.13 (2.3,22.1)	17.46 (6.4,47.9)	22.57 (9.7,52.7)	24.73 (10.4,58.9)	37.44 (18.0,77.8)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	1.34 (0.7,2.6)	3.54 (1.9,6.6)	9.04 (5.7,14.4)	18.09 (11.6,28.2)	25.25 (15.3,41.8)	31.69 (19.0,52.9)	46.21 (24.4,87.7)
Other Hispanic	1.21 (0.6,2.4)	3.87 (2.1,7.0)	9.72 (5.4,17.4)	21.39 (11.5,39.8)	31.76 (17.2,58.5)	38.12 (20.4,71.1)	59.42 (31.9,110.8)
Non-Hispanic White	0.95 (0.4,2.3)	2.75 (1.3,5.7)	6.96 (3.7,13.2)	14.74 (8.4,25.7)	22.25 (13.7,36.1)	28.42 (18.1,44.6)	41.99 (26.7,65.9)
Non-Hispanic Black	1.02 (0.5,2.0)	2.83 (1.7,4.7)	6.61 (4.4,9.8)	13.07 (9.2,18.6)	18.57 (13.0,26.5)	22.97 (16.0,32.9)	34.03 (22.9,50.6)
Other race	2.20 (1.1,4.4)	6.86 (2.9,16.3)	15.49 (7.5,32.1)	29.57 (14.9,58.7)	41.83 (21.9,79.9)	49.50 (28.0,87.5)	76.70 (36.5,161.0)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 10b. UFCR Estimates (g/day): Total Shellfish, Adults, 21 years and older, by geography

<i>Shellfish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	1.03 (0.5,2.2)	3.01 (1.7,5.4)	7.56 (4.6,12.5)	15.99 (10.6,24.2)	24.18 (16.9,34.5)	30.09 (20.8,43.5)	45.50 (31.9,64.9)
<b>Region<sup>1</sup></b>							
Midwest	0.57 (0.2,1.4)	1.52 (0.6,3.8)	3.66 (1.6,8.5)	7.49 (3.4,16.4)	11.35 (5.5,23.3)	14.04 (6.3,31.4)	25.98 (15.7,43.1)
Northeast	1.82 (0.7,4.9)	5.45 (2.7,11.2)	12.83 (7.2,22.9)	25.65 (16.8,39.1)	36.22 (24.0,54.6)	44.19 (28.8,67.9)	63.65 (40.2,100.8)
South	1.33 (0.7,2.5)	3.60 (2.1,6.1)	8.52 (5.3,13.6)	17.16 (10.8,27.3)	24.78 (15.9,38.6)	30.72 (20.3,46.6)	45.31 (31.0,66.3)
West	1.23 (0.5,3.0)	3.41 (1.6,7.1)	7.95 (4.2,15.1)	16.30 (9.9,26.9)	23.45 (14.7,37.4)	28.40 (17.5,46.2)	42.01 (26.4,66.8)
<b>Coastal Status</b>							
Noncoastal	0.83 (0.4,1.8)	2.37 (1.2,4.7)	5.98 (3.3,10.9)	12.94 (7.7,21.7)	20.22 (12.9,31.8)	26.12 (16.5,41.4)	41.57 (26.3,65.7)
Coastal	1.58 (0.8,3.3)	4.43 (2.4,8.1)	10.22 (6.0,17.5)	20.19 (12.8,31.8)	28.47 (18.7,43.3)	34.86 (23.2,52.3)	49.89 (34.5,72.2)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	1.48 (0.6,3.4)	3.96 (1.9,8.3)	9.08 (4.7,17.6)	17.25 (9.3,32.2)	24.42 (13.5,44.0)	29.20 (16.1,52.9)	40.71 (21.5,77.0)
Atlantic	1.95 (0.7,5.1)	5.13 (2.3,11.6)	11.11 (5.2,23.7)	20.78 (10.7,40.2)	28.22 (14.8,53.7)	33.96 (18.0,63.9)	48.79 (29.0,82.2)
Gulf of Mexico	3.21 (1.1,9.1)	7.88 (3.3,18.9)	17.27 (8.0,37.1)	29.60 (16.1,54.5)	41.15 (22.9,74.0)	49.27 (29.2,83.1)	73.41 (40.7,132.5)
Great Lakes	0.69 (0.2,2.6)	1.94 (0.6,5.9)	4.85 (2.1,10.9)	10.10 (5.1,20.1)	15.90 (8.9,28.5)	25.98 (14.0,48.4)	44.34 (20.0,98.2)
Inland Northeast	1.66 (0.5,5.1)	5.45 (2.6,11.5)	13.83 (8.0,24.0)	28.96 (17.3,48.6)	39.50 (23.7,65.9)	49.86 (29.3,84.8)	78.07 (38.7,157.4)
Inland Midwest	0.54 (0.2,1.2)	1.45 (0.6,3.3)	3.42 (1.5,7.7)	7.03 (3.3,14.9)	10.18 (4.7,22.1)	12.79 (5.8,28.1)	20.01 (9.5,42.3)
Inland South	0.98 (0.5,1.9)	2.63 (1.5,4.5)	5.93 (3.9,9.1)	11.75 (7.5,18.4)	16.33 (11.1,24.1)	20.87 (13.5,32.3)	31.29 (19.6,49.9)
Inland West	1.02 (0.3,3.5)	2.75 (0.9,8.4)	6.93 (3.1,15.8)	14.83 (7.9,27.7)	22.16 (12.9,38.0)	26.55 (14.6,48.4)	42.31 (25.8,69.3)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 11a. UFCR Estimates (g/day): Total Trophic Level 2 Fish, Adults, 21 years and older, by demographics

<i>Trophic Level 2 Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.87 (0.5,1.4)	2.40 (1.6,3.6)	5.69 (4.0,8.0)	11.56 (8.3,16.2)	16.51 (11.1,24.5)	20.87 (13.8,31.6)	31.79 (20.1,50.4)
<b>Gender</b>							
Female	0.74 (0.4,1.3)	2.07 (1.3,3.2)	4.84 (3.4,6.9)	9.64 (6.9,13.4)	13.95 (9.9,19.6)	17.21 (11.8,25.1)	25.63 (16.2,40.5)
Male	1.07 (0.6,1.8)	2.95 (1.9,4.5)	6.96 (4.7,10.3)	13.81 (9.2,20.7)	19.84 (12.7,30.9)	24.76 (15.5,39.5)	36.83 (21.9,61.9)
<b>Age</b>							
21 to <35 yrs	0.74 (0.4,1.5)	2.11 (1.3,3.5)	5.06 (3.5,7.3)	10.29 (7.3,14.5)	14.36 (10.0,20.7)	17.93 (11.9,27.1)	27.79 (17.8,43.4)
35 to <50 yrs	0.99 (0.5,1.9)	2.65 (1.6,4.4)	6.11 (4.0,9.2)	12.58 (7.9,20.0)	18.43 (10.8,31.6)	23.72 (13.6,41.5)	40.70 (24.5,67.7)
50 to <65 yrs	1.18 (0.7,2.1)	2.95 (1.8,4.9)	6.49 (4.1,10.3)	12.15 (7.7,19.3)	16.60 (9.7,28.4)	20.51 (11.9,35.4)	28.99 (15.4,54.7)
65+ yrs	0.58 (0.2,1.3)	1.72 (0.9,3.3)	4.76 (3.0,7.4)	10.73 (7.5,15.3)	16.36 (11.4,23.5)	20.25 (13.9,29.6)	28.91 (19.0,43.9)
Women of Childbearing Age <sup>1</sup>	0.56 (0.3,1.2)	1.69 (1.0,2.9)	4.28 (2.9,6.4)	8.87 (6.3,12.4)	13.18 (9.3,18.7)	16.53 (11.2,24.5)	25.53 (15.9,41.1)
<b>Income</b>							
<\$20,000	0.58 (0.3,1.1)	1.75 (1.1,2.9)	4.21 (2.6,6.9)	8.89 (5.7,14.0)	13.35 (8.3,21.4)	16.96 (10.1,28.5)	28.02 (18.4,42.6)
\$20k-\$45k	0.79 (0.4,1.4)	2.22 (1.3,3.7)	5.32 (3.6,7.9)	10.95 (7.7,15.6)	15.94 (11.4,22.3)	20.52 (14.6,28.9)	30.26 (20.5,44.7)
\$45k-\$75k	0.86 (0.5,1.6)	2.42 (1.4,4.1)	5.73 (3.6,9.1)	11.21 (7.3,17.3)	16.05 (10.2,25.4)	19.88 (12.2,32.5)	30.88 (18.7,51.0)
\$75k+	1.10 (0.6,1.9)	2.82 (1.7,4.6)	6.53 (4.0,10.6)	12.94 (8.0,21.0)	18.22 (10.3,32.3)	22.88 (12.6,41.5)	35.24 (20.1,61.8)
>\$20,000	0.93 (0.4,2.1)	2.58 (1.3,5.3)	5.59 (2.8,11.0)	11.34 (5.7,22.7)	17.15 (8.5,34.7)	21.99 (10.1,48.0)	31.47 (14.9,66.6)
Inc Ref/DK	1.34 (0.5,3.7)	3.83 (1.5,9.8)	8.74 (4.0,19.1)	15.37 (8.5,27.9)	20.83 (11.6,37.5)	22.15 (9.9,49.4)	28.50 (9.4,86.6)
Inc missing	0.75 (0.1,7.3)	2.32 (0.3,16.6)	5.42 (1.1,27.5)	8.57 (2.8,25.8)	14.07 (3.9,50.7)	17.52 (5.1,60.3)	31.15 (6.4,151.5)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	1.32 (0.7,2.4)	3.53 (2.2,5.6)	7.78 (5.1,11.9)	15.01 (9.6,23.5)	21.32 (12.9,35.3)	26.65 (15.6,45.4)	40.14 (22.3,72.2)
Other Hispanic	1.04 (0.5,2.4)	3.16 (1.7,5.7)	7.78 (4.7,12.9)	17.45 (9.8,31.0)	25.76 (14.5,45.8)	33.70 (18.7,60.8)	47.87 (26.0,88.2)
Non-Hispanic White	0.77 (0.5,1.3)	2.10 (1.4,3.2)	4.96 (3.3,7.5)	10.20 (6.7,15.4)	14.87 (9.5,23.3)	18.19 (10.6,31.2)	26.70 (13.9,51.4)
Non-Hispanic Black	1.01 (0.6,1.7)	2.70 (1.8,4.1)	6.07 (4.3,8.5)	10.94 (7.6,15.7)	14.75 (9.2,23.7)	18.20 (11.2,29.5)	26.03 (14.8,45.7)
Other race	1.59 (0.6,4.2)	4.21 (1.8,9.7)	9.68 (4.5,20.6)	17.95 (10.2,31.5)	27.23 (14.8,50.0)	36.64 (18.2,73.7)	57.07 (26.7,122.0)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 11b. UFCR Estimates (g/day): Total Trophic Level 2 Fish, Adults, 21 years and older, by geography

<i>Trophic Level 2 Fish</i> Adults ≥21 years old	<i>Percentiles(95% CI)</i>						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	0.87 (0.5,1.4)	2.40 (1.6,3.6)	5.69 (4.0,8.0)	11.56 (8.3,16.2)	16.51 (11.1,24.5)	20.87 (13.8,31.6)	31.79 (20.1,50.4)
<b>Region<sup>1</sup></b>							
Midwest	0.46 (0.2,0.9)	1.18 (0.6,2.2)	2.67 (1.4,5.2)	5.24 (2.5,11.1)	7.69 (3.5,17.1)	9.80 (4.3,22.3)	16.74 (8.2,34.1)
Northeast	1.55 (0.9,2.7)	4.00 (2.6,6.1)	9.29 (6.4,13.5)	16.85 (10.8,26.3)	23.80 (14.4,39.3)	30.18 (18.3,49.8)	45.42 (26.1,79.1)
South	1.24 (0.5,2.9)	3.11 (1.7,5.7)	6.66 (4.4,10.1)	12.32 (8.4,18.0)	17.42 (11.7,25.9)	21.29 (13.7,33.1)	30.46 (17.6,52.9)
West	0.92 (0.5,1.6)	2.52 (1.5,4.1)	5.98 (3.9,9.3)	11.63 (7.6,17.9)	16.00 (10.1,25.3)	20.16 (12.8,31.9)	29.52 (18.4,47.5)
<b>Coastal Status</b>							
Noncoastal	0.71 (0.4,1.2)	1.94 (1.3,2.9)	4.60 (3.1,6.8)	9.75 (6.7,14.3)	14.62 (9.4,22.7)	18.88 (11.9,30.0)	30.44 (18.3,50.5)
Coastal	1.28 (0.7,2.4)	3.32 (2.0,5.5)	7.42 (4.8,11.5)	13.66 (8.8,21.2)	18.65 (11.2,31.0)	23.08 (13.8,38.5)	33.89 (20.4,56.3)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	1.34 (0.6,3.2)	3.27 (1.7,6.4)	7.20 (4.1,12.6)	12.73 (8.0,20.2)	17.05 (10.5,27.7)	20.42 (12.1,34.4)	29.10 (16.4,51.8)
Atlantic	1.49 (0.7,3.1)	3.55 (1.7,7.2)	7.31 (3.3,16.0)	13.19 (5.8,30.0)	17.58 (7.0,44.3)	21.29 (8.2,55.3)	28.51 (9.6,84.6)
Gulf of Mexico	2.72 (0.8,9.1)	6.37 (2.5,16.2)	12.19 (6.5,22.8)	20.53 (12.9,32.6)	27.79 (18.0,42.9)	35.13 (22.5,55.0)	53.49 (31.8,89.9)
Great Lakes	0.51 (0.2,1.5)	1.35 (0.5,3.7)	3.39 (1.6,7.3)	6.92 (3.3,14.5)	11.08 (5.9,20.7)	15.76 (8.6,28.7)	40.29 (8.8,184.6)
Inland Northeast	1.46 (0.8,2.8)	4.22 (2.3,7.8)	10.42 (5.3,20.6)	19.99 (10.4,38.6)	28.50 (14.8,54.8)	36.43 (18.1,73.5)	51.65 (25.8,103.5)
Inland Midwest	0.45 (0.2,0.8)	1.14 (0.6,2.1)	2.56 (1.3,4.9)	4.83 (2.3,10.1)	6.97 (3.1,15.6)	8.58 (3.6,20.4)	13.55 (5.7,32.2)
Inland South	1.00 (0.4,2.6)	2.52 (1.2,5.2)	5.25 (3.3,8.3)	9.71 (6.8,13.9)	13.75 (9.6,19.7)	17.00 (11.7,24.6)	24.23 (15.4,38.1)
Inland West	0.70 (0.4,1.4)	1.83 (1.0,3.4)	4.42 (2.5,7.7)	10.14 (6.2,16.6)	14.59 (8.5,25.1)	18.88 (10.9,32.7)	29.52 (17.6,49.5)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 12a. UFCR Estimates (g/day): Total Trophic Level 3 Fish, Adults, 21 years and older, by demographics

<i>Trophic Level 3 Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	2.21 (1.3,3.8)	5.02 (3.5,7.2)	9.82 (7.5,12.9)	17.02 (13.1,22.0)	22.69 (17.4,29.6)	26.67 (20.1,35.3)	37.12 (27.0,51.1)
<b>Gender</b>							
Female	1.89 (1.1,3.4)	4.29 (2.9,6.3)	8.26 (6.2,11.0)	14.27 (10.9,18.7)	19.65 (14.9,25.9)	23.04 (17.3,30.7)	30.29 (21.1,43.5)
Male	2.79 (1.6,4.7)	6.16 (4.3,8.9)	11.84 (8.9,15.7)	19.58 (15.0,25.5)	26.16 (20.0,34.3)	31.43 (23.6,41.9)	43.53 (31.2,60.8)
<b>Age</b>							
21 to <35 yrs	1.83 (0.8,4.2)	4.43 (2.5,7.9)	9.11 (5.9,14.1)	16.46 (11.3,24.0)	23.04 (16.0,33.3)	27.79 (20.0,38.6)	39.30 (27.5,56.1)
35 to <50 yrs	2.12 (1.4,3.3)	4.78 (3.4,6.8)	8.99 (6.0,13.4)	15.83 (11.1,22.7)	20.81 (13.8,31.4)	25.07 (16.8,37.5)	34.07 (22.2,52.2)
50 to <65 yrs	3.37 (1.8,6.2)	7.01 (4.3,11.3)	12.62 (8.6,18.4)	20.10 (14.1,28.6)	25.43 (18.4,35.2)	29.52 (21.2,41.2)	39.79 (26.6,59.5)
65+ yrs	1.94 (1.1,3.4)	4.27 (2.8,6.4)	8.35 (6.0,11.7)	14.07 (9.5,20.8)	18.81 (12.1,29.2)	23.03 (15.3,34.7)	31.34 (19.5,50.3)
Women of Childbearing Age <sup>1</sup>	1.19 (0.7,2.0)	3.36 (2.3,5.0)	6.95 (5.2,9.3)	12.62 (9.6,16.6)	17.94 (13.7,23.5)	21.72 (16.5,28.7)	29.33 (20.7,41.5)
<b>Income</b>							
<\$20,000	1.69 (1.1,2.7)	4.37 (3.1,6.2)	9.28 (7.0,12.4)	16.75 (12.7,22.1)	22.84 (17.0,30.7)	26.79 (18.8,38.2)	36.93 (23.5,58.1)
\$20k-\$45k	1.89 (1.0,3.5)	4.39 (2.8,6.8)	8.59 (6.3,11.8)	14.88 (11.2,19.8)	19.71 (14.6,26.5)	23.39 (17.0,32.2)	34.42 (24.0,49.4)
\$45k-\$75k	2.24 (1.2,4.2)	5.15 (3.1,8.4)	10.25 (6.9,15.2)	17.45 (12.7,24.0)	23.10 (17.1,31.2)	27.18 (20.2,36.5)	37.20 (26.6,52.0)
\$75k+	2.70 (1.7,4.2)	5.62 (4.0,7.8)	10.49 (7.7,14.4)	17.85 (13.3,24.0)	23.51 (17.3,31.9)	27.40 (19.5,38.4)	38.12 (26.7,54.4)
>\$20,000	2.72 (0.9,8.1)	5.58 (2.5,12.6)	10.12 (5.5,18.6)	16.06 (9.4,27.4)	20.92 (12.4,35.4)	25.37 (14.5,44.5)	33.62 (18.1,62.4)
Inc Ref/DK	2.72 (0.8,9.4)	6.68 (2.5,17.7)	13.40 (5.8,30.8)	22.93 (10.3,50.9)	27.60 (15.3,49.9)	30.12 (18.1,50.2)	36.66 (21.2,63.5)
Inc missing	2.89 (0.5,15.2)	6.52 (1.8,23.3)	11.76 (4.6,29.8)	22.02 (8.8,55.1)	29.34 (12.5,69.1)	41.68 (12.1,143.3)	69.77 (12.5,389.9)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	2.28 (1.3,4.1)	5.72 (3.4,9.6)	10.97 (7.2,16.6)	18.15 (12.5,26.4)	24.28 (16.6,35.6)	28.14 (19.4,40.9)	37.76 (24.4,58.5)
Other Hispanic	2.07 (0.9,4.7)	4.85 (2.7,8.6)	9.37 (5.9,14.8)	15.63 (10.2,24.0)	20.56 (13.3,31.8)	24.58 (15.7,38.5)	36.12 (21.8,59.8)
Non-Hispanic White	2.00 (1.1,3.5)	4.43 (3.1,6.4)	8.39 (6.3,11.3)	14.35 (10.8,19.1)	18.95 (13.9,25.9)	22.41 (16.0,31.5)	30.02 (19.8,45.6)
Non-Hispanic Black	3.14 (1.9,5.1)	6.79 (4.7,9.8)	12.07 (9.4,15.5)	19.04 (14.4,25.1)	24.13 (17.3,33.7)	28.36 (19.9,40.4)	36.54 (23.5,56.8)
Other race	6.37 (2.7,14.9)	13.28 (6.5,27.0)	23.44 (12.7,43.3)	32.88 (23.2,46.6)	40.42 (28.7,56.9)	45.90 (30.5,69.0)	61.43 (36.3,104.0)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 12b. UFCR Estimates (g/day): Total Trophic Level 3 Fish, Adults, 21 years and older, by geography

<i>Trophic Level 3 Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	2.21 (1.3,3.8)	5.02 (3.5,7.2)	9.82 (7.5,12.9)	17.02 (13.1,22.0)	22.69 (17.4,29.6)	26.67 (20.1,35.3)	37.12 (27.0,51.1)
<b>Region<sup>1</sup></b>							
Midwest	1.55 (0.7,3.3)	3.35 (2.0,5.7)	6.27 (4.3,9.1)	10.74 (7.6,15.2)	14.07 (9.9,19.9)	16.94 (11.8,24.2)	24.63 (16.6,36.5)
Northeast	2.44 (1.5,4.0)	5.90 (4.0,8.6)	11.65 (8.3,16.3)	19.33 (13.9,26.9)	24.83 (18.0,34.3)	29.33 (20.6,41.8)	37.92 (25.5,56.3)
South	2.66 (1.5,4.7)	5.88 (3.9,8.8)	11.04 (8.2,14.9)	18.20 (13.8,23.9)	23.72 (17.8,31.6)	27.66 (19.9,38.4)	37.85 (26.3,54.5)
West	2.64 (1.6,4.4)	5.63 (3.8,8.4)	10.83 (7.6,15.4)	19.16 (13.3,27.6)	25.51 (17.7,36.7)	30.24 (21.4,42.8)	41.95 (28.2,62.5)
<b>Coastal Status</b>							
Noncoastal	1.96 (1.1,3.6)	4.55 (2.8,7.3)	8.97 (6.2,12.9)	15.56 (11.0,22.0)	20.67 (14.8,28.8)	24.60 (17.6,34.3)	33.97 (23.4,49.4)
Coastal	2.70 (1.8,4.1)	5.86 (4.1,8.3)	11.17 (8.0,15.6)	19.04 (13.9,26.0)	25.37 (18.6,34.7)	29.79 (20.9,42.5)	40.94 (27.5,60.9)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	2.35 (1.4,4.0)	5.12 (3.1,8.4)	9.73 (5.7,16.5)	18.49 (12.5,27.4)	25.82 (17.7,37.6)	30.79 (20.8,45.6)	43.67 (27.1,70.3)
Atlantic	3.14 (1.8,5.5)	6.51 (3.9,10.8)	11.72 (7.0,19.6)	18.87 (11.3,31.5)	24.52 (14.7,41.0)	28.52 (16.5,49.3)	39.36 (24.6,62.9)
Gulf of Mexico	4.02 (1.8,9.1)	8.79 (5.1,15.2)	16.11 (10.8,23.9)	24.16 (16.5,35.3)	29.80 (18.1,49.2)	34.07 (18.8,61.8)	47.32 (24.9,89.8)
Great Lakes	1.90 (1.1,3.3)	4.12 (2.7,6.3)	7.82 (5.2,11.7)	13.36 (9.1,19.6)	17.73 (11.8,26.5)	21.67 (14.5,32.4)	30.62 (19.4,48.4)
Inland Northeast	1.90 (1.0,3.7)	5.09 (2.9,8.8)	10.79 (6.6,17.6)	18.60 (11.3,30.7)	23.55 (15.2,36.6)	27.77 (17.8,43.2)	36.80 (23.2,58.4)
Inland Midwest	1.47 (0.6,3.6)	3.18 (1.6,6.3)	5.86 (3.6,9.5)	10.03 (6.4,15.7)	12.96 (8.8,19.2)	15.52 (10.4,23.1)	20.92 (13.3,32.9)
Inland South	2.28 (1.2,4.3)	5.32 (3.1,9.1)	9.91 (6.6,14.8)	16.58 (11.3,24.2)	21.65 (15.0,31.2)	25.13 (17.8,35.5)	33.97 (23.1,49.9)
Inland West	3.03 (1.3,7.0)	6.26 (3.3,11.9)	11.90 (6.6,21.5)	19.51 (11.4,33.4)	25.07 (15.2,41.3)	29.34 (18.2,47.4)	39.19 (24.2,63.6)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 13a. UFCR Estimates (g/day): Total Trophic Level 4 Fish, Adults, 21 years and older, by demographics

<i>Trophic Level 4 Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	2.69 (1.6,4.5)	6.08 (4.4,8.4)	11.63 (8.7,15.6)	19.63 (14.5,26.6)	26.23 (19.2,35.9)	31.73 (23.5,42.9)	43.40 (31.4,60.1)
<b>Gender</b>							
Female	2.42 (1.4,4.1)	5.62 (4.1,7.7)	10.70 (8.1,14.1)	18.01 (13.5,24.1)	23.95 (17.6,32.6)	28.46 (20.5,39.5)	38.42 (26.7,55.4)
Male	3.08 (1.9,5.0)	6.82 (4.8,9.7)	12.87 (9.3,17.9)	21.74 (15.7,30.1)	29.35 (21.7,39.6)	35.30 (26.3,47.5)	48.37 (35.2,66.5)
<b>Age</b>							
21 to <35 yrs	1.77 (0.8,4.0)	4.64 (2.8,7.8)	9.56 (6.8,13.4)	16.73 (12.2,22.9)	22.95 (16.3,32.4)	28.02 (19.7,39.9)	39.63 (26.6,59.1)
35 to <50 yrs	2.61 (1.7,3.9)	5.74 (4.2,7.9)	10.61 (7.7,14.6)	17.67 (12.7,24.6)	23.41 (16.6,32.9)	27.63 (19.1,39.9)	37.01 (24.2,56.6)
50 to <65 yrs	4.47 (2.5,8.0)	8.87 (6.0,13.1)	16.09 (11.6,22.3)	26.03 (18.6,36.4)	34.47 (24.1,49.2)	40.32 (28.3,57.5)	56.32 (36.7,86.3)
65+ yrs	2.98 (1.8,4.9)	6.18 (3.8,10.1)	11.23 (6.7,18.9)	17.96 (9.9,32.5)	23.89 (13.5,42.4)	27.89 (14.8,52.5)	38.31 (20.9,70.3)
Women of Childbearing Age <sup>1</sup>	1.45 (0.8,2.6)	4.20 (2.9,6.2)	8.71 (6.7,11.4)	15.23 (11.5,20.1)	20.45 (15.1,27.7)	24.65 (18.0,33.8)	34.24 (24.2,48.5)
<b>Income</b>							
<\$20,000	1.64 (0.9,3.0)	4.64 (3.1,6.9)	9.11 (6.8,12.2)	16.59 (12.5,22.0)	23.30 (17.1,31.8)	28.73 (20.4,40.5)	40.04 (27.5,58.3)
\$20k-\$45k	2.28 (1.4,3.8)	5.18 (3.6,7.5)	9.99 (6.9,14.4)	16.71 (11.0,25.4)	22.41 (14.2,35.5)	27.32 (17.5,42.6)	38.85 (25.4,59.5)
\$45k-\$75k	2.52 (1.6,4.1)	5.70 (3.8,8.5)	11.14 (7.7,16.2)	19.18 (13.4,27.5)	25.60 (17.6,37.2)	30.66 (21.4,44.0)	41.07 (27.1,62.3)
\$75k+	3.83 (2.4,6.0)	7.91 (5.7,10.9)	14.26 (10.7,19.0)	22.95 (17.0,31.0)	29.83 (21.8,40.8)	35.16 (25.4,48.6)	46.33 (31.4,68.3)
>\$20,000	2.96 (1.5,5.9)	6.56 (3.9,11.1)	11.94 (7.5,19.0)	19.89 (12.5,31.7)	29.27 (15.8,54.2)	36.32 (18.1,73.0)	45.96 (25.4,83.0)
Inc Ref/DK	2.85 (0.8,9.9)	6.99 (2.8,17.4)	12.35 (6.9,22.1)	19.02 (12.3,29.5)	24.89 (15.7,39.6)	29.29 (18.3,46.8)	40.91 (23.0,72.7)
Inc missing	3.06 (0.4,21.1)	7.48 (2.0,28.6)	15.70 (5.1,48.3)	26.67 (10.5,67.7)	39.22 (14.8,104.1)	46.62 (18.1,119.8)	55.32 (27.3,112.1)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	1.97 (0.9,4.2)	5.19 (2.9,9.2)	10.02 (6.5,15.3)	16.76 (11.8,23.9)	22.56 (16.2,31.5)	27.40 (19.4,38.7)	37.40 (25.0,55.9)
Other Hispanic	2.14 (1.1,4.3)	5.17 (3.1,8.6)	10.39 (6.6,16.4)	17.90 (11.9,26.9)	24.93 (16.2,38.3)	28.71 (19.2,43.0)	41.70 (27.4,63.6)
Non-Hispanic White	2.69 (1.7,4.4)	6.00 (4.3,8.4)	11.41 (8.2,15.9)	19.18 (13.5,27.3)	25.50 (17.8,36.6)	30.90 (22.1,43.2)	41.54 (28.7,60.2)
Non-Hispanic Black	2.74 (1.4,5.4)	6.20 (4.1,9.3)	11.74 (8.6,16.0)	19.38 (14.4,26.1)	26.00 (19.3,35.0)	31.26 (23.3,41.9)	42.03 (30.6,57.8)
Other race	4.90 (2.9,8.2)	10.34 (7.0,15.4)	18.35 (13.3,25.3)	28.73 (20.5,40.3)	38.34 (27.1,54.2)	47.20 (33.9,65.7)	62.93 (41.8,94.8)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 13b. UFCR Estimates (g/day): Total Trophic Level 4 Fish, Adults, 21 years and older, by geography

<i>Trophic Level 4 Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	2.69 (1.6,4.5)	6.08 (4.4,8.4)	11.63 (8.7,15.6)	19.63 (14.5,26.6)	26.23 (19.2,35.9)	31.73 (23.5,42.9)	43.40 (31.4,60.1)
<b>Region<sup>1</sup></b>							
Midwest	2.16 (1.2,4.0)	4.88 (3.1,7.7)	9.64 (6.4,14.5) 14.12	16.11 (10.4,24.9)	21.45 (13.5,34.2)	25.88 (16.3,41.1)	37.87 (25.8,55.6)
Northeast	3.04 (1.8,5.2)	7.36 (5.1,10.7)	(10.0,19.8)	23.38 (16.7,32.7)	30.50 (21.5,43.4)	35.31 (24.3,51.3)	46.24 (29.8,71.7)
South	2.52 (1.5,4.2)	5.76 (4.1,8.1)	10.91 (8.3,14.3)	19.04 (14.6,24.8)	25.85 (19.6,34.1)	32.13 (24.0,43.0)	46.62 (33.2,65.4)
West	3.56 (2.1,6.1)	7.39 (5.2,10.4)	13.25 (9.6,18.2)	21.39 (15.2,30.0)	27.43 (18.8,40.1)	32.29 (21.8,47.9)	42.71 (27.7,65.9)
<b>Coastal Status</b>							
Noncoastal	2.72 (1.4,5.4)	6.10 (4.1,9.1)	11.44 (8.4,15.6)	19.13 (14.1,25.9)	24.99 (18.0,34.6)	30.21 (21.9,41.7)	40.58 (28.4,57.9)
Coastal	2.66 (1.7,4.2)	6.05 (3.9,9.4)	12.01 (7.9,18.1)	20.67 (13.7,31.1)	28.09 (19.1,41.4)	34.18 (23.9,48.9)	47.20 (32.8,67.9)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	2.99 (1.8,5.1)	6.51 (4.1,10.3)	11.93 (7.6,18.7)	19.17 (11.6,31.8)	25.40 (15.8,40.7)	29.54 (17.7,49.2)	38.63 (22.3,66.8)
Atlantic	2.91 (1.4,6.1)	6.53 (3.5,12.0)	12.78 (7.5,21.7)	20.93 (11.9,36.7)	28.04 (16.7,47.0)	33.54 (20.4,55.1)	45.05 (27.6,73.6)
Gulf of Mexico	2.13 (1.0,4.4)	5.07 (3.0,8.6)	11.72 (6.9,19.9)	26.29 (12.1,57.0)	38.78 (17.2,87.3)	49.62 (22.8,108.1)	69.59 (35.2,137.8)
Great Lakes	1.91 (1.0,3.8)	4.56 (2.3,8.9)	10.03 (5.6,17.9)	18.66 (11.2,30.9)	26.34 (16.8,41.4)	33.10 (22.4,48.9)	44.20 (29.3,66.6)
Inland Northeast	2.85 (1.3,6.2)	7.42 (4.3,12.7)	14.49 (9.1,23.1)	23.82 (15.2,37.4)	30.73 (19.6,48.2)	35.34 (23.0,54.4)	44.41 (27.3,72.2)
Inland Midwest	2.26 (1.1,4.8)	4.93 (3.0,8.1)	9.51 (6.2,14.5)	15.39 (10.2,23.2)	20.20 (13.1,31.2)	24.30 (15.8,37.3)	33.77 (22.1,51.5)
Inland South	2.55 (1.1,5.8)	5.79 (3.5,9.7)	10.43 (7.7,14.2)	17.23 (13.1,22.7)	22.87 (17.3,30.3)	27.11 (20.2,36.4)	37.64 (27.0,52.5)
Inland West	4.25 (1.8,10.0)	8.39 (5.0,14.1)	14.70 (9.6,22.6)	22.98 (15.3,34.5)	29.70 (19.7,44.7)	35.24 (23.0,53.9)	47.41 (30.2,74.4)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 14a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 2 Fish, Adults, 21 years and older, by demographics

<i>Trophic Level 2 FW+Est Fish</i>	<i>Percentiles (95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.59 (0.3,1.1)	1.66 (1.0,2.7)	4.07 (2.9,5.8)	8.23 (6.1,11.1)	12.08 (8.8,16.6)	15.25 (10.9,21.4)	22.56 (15.2,33.4)
<b>Gender</b>							
Female	0.51 (0.3,0.9)	1.44 (0.9,2.3)	3.46 (2.4,5.0)	6.87 (5.0,9.4)	10.17 (7.3,14.3)	12.79 (8.9,18.4)	19.30 (12.1,30.9)
Male	0.72 (0.4,1.5)	2.03 (1.2,3.4)	4.87 (3.3,7.3)	9.79 (7.0,13.6)	14.42 (10.3,20.3)	17.55 (12.6,24.4)	26.51 (17.1,41.2)
<b>Age</b>							
21 to <35 yrs	0.52 (0.3,1.0)	1.59 (1.0,2.6)	4.05 (2.6,6.2)	8.21 (5.6,12.1)	11.96 (8.2,17.4)	14.88 (10.4,21.3)	21.37 (15.3,29.9)
35 to <50 yrs	0.66 (0.3,1.3)	1.87 (1.1,3.1)	4.52 (3.0,6.8)	9.01 (6.2,13.2)	13.82 (8.7,22.0)	17.48 (10.5,29.0)	26.20 (14.0,48.9)
50 to <65 yrs	0.66 (0.3,1.6)	1.76 (0.9,3.5)	4.15 (2.5,6.9)	8.36 (5.7,12.2)	11.88 (8.2,17.2)	14.39 (9.9,20.8)	20.11 (13.7,29.4)
65+ yrs	0.47 (0.2,1.0)	1.29 (0.7,2.3)	3.14 (2.0,4.8)	6.45 (4.6,9.0)	9.44 (6.9,12.9)	11.99 (8.8,16.4)	18.19 (12.6,26.4)
Women of Childbearing Age <sup>1</sup>	0.38 (0.2,0.7)	1.23 (0.8,2.0)	3.22 (2.2,4.8)	6.51 (4.6,9.1)	9.75 (6.7,14.2)	12.43 (8.2,18.8)	18.56 (11.7,29.4)
<b>Income</b>							
<\$20,000	0.40 (0.2,0.8)	1.26 (0.7,2.2)	3.27 (2.1,5.0)	6.68 (4.6,9.7)	10.42 (7.5,14.5)	13.28 (9.4,18.8)	18.46 (12.4,27.6)
\$20k-\$45k	0.52 (0.3,1.0)	1.45 (0.9,2.4)	3.66 (2.5,5.4)	7.57 (5.3,10.8)	11.27 (7.6,16.7)	14.11 (9.7,20.5)	21.32 (13.8,32.9)
\$45k-\$75k	0.61 (0.3,1.2)	1.72 (1.0,3.0)	4.20 (2.6,6.7)	8.67 (5.4,13.9)	12.49 (7.9,19.6)	16.00 (9.7,26.4)	22.80 (14.3,36.5)
\$75k+	0.74 (0.3,1.8)	1.97 (1.0,3.8)	4.59 (2.8,7.5)	8.95 (6.0,13.3)	13.19 (9.3,18.8)	16.95 (11.6,24.8)	24.64 (15.3,39.6)
>\$20,000	0.81 (0.3,1.9)	1.88 (0.8,4.2)	4.43 (2.2,9.0)	9.04 (4.7,17.5)	13.08 (6.6,26.0)	15.69 (8.1,30.5)	25.94 (9.6,70.0)
Inc Ref/DK	0.72 (0.3,1.5)	2.07 (1.1,4.0)	5.08 (2.6,10.1)	9.55 (4.9,18.6)	13.65 (7.0,26.7)	15.92 (8.7,29.1)	23.16 (12.0,44.7)
Inc missing	0.32 (0.1,1.5)	1.56 (0.3,8.1)	4.08 (0.8,20.8)	7.72 (1.8,33.0)	11.16 (2.5,50.1)	11.86 (3.9,36.5)	14.22 (5.5,37.1)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	0.86 (0.4,1.7)	2.45 (1.4,4.3)	5.70 (3.6,9.1)	11.39 (8.0,16.2)	16.28 (11.6,22.9)	20.68 (14.7,29.0)	30.29 (20.2,45.5)
Other Hispanic	1.02 (0.5,2.2)	2.67 (1.5,4.8)	6.29 (3.6,11.1)	11.80 (6.8,20.3)	17.67 (8.5,36.7)	21.46 (10.5,43.7)	30.05 (15.0,60.3)
White	0.50 (0.2,1.0)	1.40 (0.8,2.5)	3.40 (2.2,5.1)	6.86 (4.9,9.6)	10.16 (7.4,13.9)	12.80 (9.3,17.7)	18.67 (13.3,26.1)
Black	0.74 (0.4,1.5)	2.00 (1.2,3.5)	4.56 (2.9,7.1)	8.64 (5.8,12.8)	12.45 (8.8,17.6)	15.60 (11.2,21.8)	21.65 (14.6,32.0)
Other race	1.48 (0.7,3.3)	3.66 (1.7,7.8)	7.55 (3.9,14.8)	14.86 (5.8,38.1)	19.80 (7.9,49.9)	24.47 (9.0,66.6)	36.74 (9.7,139.5)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 14b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 2 Fish, Adults, 21 years and older, by geography

<i>Trophic Level 2 FW+Est Fish</i>	<i>Percentiles (95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.59 (0.3,1.1)	1.66 (1.0,2.7)	4.07 (2.9,5.8)	8.23 (6.1,11.1)	12.08 (8.8,16.6)	15.25 (10.9,21.4)	22.56 (15.2,33.4)
<b>Region<sup>1</sup></b>							
Midwest	0.32 (0.1,0.9)	0.87 (0.3,2.2)	2.17 (1.1,4.3)	4.40 (2.4,8.1)	6.70 (3.9,11.4)	8.62 (5.2,14.3)	12.97 (7.6,22.1)
Northeast	0.94 (0.6,1.6)	2.51 (1.6,3.8)	5.61 (4.0,7.9)	10.70 (7.5,15.2)	14.86 (10.3,21.5)	18.23 (12.5,26.5)	26.51 (16.8,41.9)
South	0.76 (0.4,1.5)	2.09 (1.2,3.6)	4.80 (3.1,7.4)	9.47 (6.5,13.8)	13.76 (9.3,20.5)	16.81 (11.5,24.6)	24.79 (15.6,39.3)
West	0.68 (0.3,1.4)	1.82 (1.0,3.3)	4.18 (2.5,6.9)	8.39 (5.1,13.7)	12.01 (7.2,20.1)	15.18 (8.7,26.5)	22.90 (11.6,45.4)
<b>Coastal Status</b>							
Noncoastal	0.47 (0.2,0.9)	1.36 (0.8,2.2)	3.38 (2.4,4.8)	6.99 (5.1,9.6)	10.69 (7.4,15.5)	13.50 (9.1,20.1)	20.73 (12.7,33.8)
Coastal	0.86 (0.4,1.8)	2.29 (1.3,4.1)	5.09 (3.2,8.2)	9.73 (6.7,14.2)	14.09 (9.9,20.1)	17.09 (12.1,24.2)	24.90 (16.7,37.1)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	0.84 (0.4,1.9)	2.24 (1.1,4.5)	4.96 (2.7,9.1)	9.38 (5.3,16.7)	13.77 (7.3,26.0)	16.70 (8.9,31.2)	26.68 (10.5,68.1)
Atlantic	0.84 (0.3,2.6)	2.19 (0.9,5.2)	4.69 (2.2,10.2)	8.65 (4.4,17.1)	12.44 (7.1,21.9)	15.68 (9.7,25.4)	22.00 (13.6,35.6)
Gulf of Mexico	1.72 (0.6,5.2)	4.28 (1.8,10.3)	8.71 (4.4,17.3)	15.08 (8.4,26.9)	19.41 (11.5,32.8)	22.47 (13.8,36.5)	30.53 (18.9,49.3)
Great Lakes	0.60 (0.3,1.3)	1.57 (0.8,3.0)	3.47 (2.0,6.1)	7.08 (4.3,11.6)	10.14 (6.1,16.9)	12.55 (7.4,21.4)	19.78 (9.6,40.6)
Inland Northeast	0.93 (0.5,1.8)	2.63 (1.5,4.6)	6.14 (3.5,10.8)	11.79 (6.2,22.3)	15.92 (8.8,28.8)	19.70 (10.6,36.7)	29.62 (13.7,64.2)
Inland Midwest	0.28 (0.1,0.8)	0.75 (0.3,1.9)	1.83 (0.8,3.9)	3.64 (1.7,7.6)	5.50 (2.8,10.7)	7.04 (3.7,13.5)	11.20 (6.0,20.9)
Inland South	0.63 (0.3,1.3)	1.73 (1.0,3.1)	4.07 (2.5,6.7)	8.11 (4.8,13.8)	11.72 (6.7,20.4)	14.81 (8.2,26.8)	22.44 (11.1,45.5)
Inland West	0.59 (0.3,1.3)	1.50 (0.8,2.9)	3.39 (2.0,5.9)	6.61 (4.1,10.6)	10.37 (6.3,17.0)	12.96 (7.8,21.5)	18.56 (11.0,31.2)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 15a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 3 Fish, Adults, 21 years and older, by demographics

<i>Trophic Level 3 FW+Est Fish</i>	<i>Percentiles (95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.87 (0.5,1.7)	2.24 (1.3,3.7)	5.06 (3.6,7.1)	9.51 (7.0,13.0)	13.78 (9.5,20.1)	17.31 (11.1,27.0)	25.10 (14.9,42.2)
<b>Gender</b>							
Female	0.73 (0.4,1.5)	1.87 (1.1,3.3)	4.18 (2.8,6.2)	7.77 (5.5,11.0)	10.90 (7.7,15.5)	13.77 (9.4,20.2)	19.84 (12.5,31.4)
Male	1.13 (0.6,2.1)	2.86 (1.9,4.4)	6.30 (4.6,8.6)	11.83 (8.3,17.0)	16.88 (10.6,26.8)	20.52 (12.6,33.4)	29.34 (16.5,52.3)
<b>Age</b>							
21 to <35 yrs	0.77 (0.5,1.2)	2.08 (1.4,3.0)	4.95 (3.4,7.1)	9.43 (6.2,14.4)	13.88 (8.1,23.7)	17.63 (9.5,32.7)	25.99 (13.4,50.4)
35 to <50 yrs	0.88 (0.4,1.9)	2.20 (1.1,4.2)	5.00 (3.2,7.8)	9.34 (6.3,13.8)	13.30 (8.9,19.8)	16.75 (11.0,25.5)	23.34 (14.8,36.8)
50 to <65 yrs	1.20 (0.6,2.5)	2.87 (1.7,4.9)	5.98 (4.0,8.9)	11.08 (7.7,16.0)	15.75 (10.0,24.8)	19.30 (11.6,32.0)	28.05 (14.7,53.6)
65+ yrs	0.71 (0.3,1.8)	1.78 (0.9,3.7)	4.01 (2.5,6.5)	7.53 (5.1,11.2)	10.80 (7.4,15.7)	13.68 (9.3,20.0)	20.24 (12.5,32.8)
Women of Childbearing Age <sup>1</sup>	0.52 (0.3,1.0)	1.56 (1.0,2.6)	3.69 (2.6,5.3)	7.24 (5.2,10.1)	10.41 (7.3,14.8)	12.89 (8.7,19.0)	19.19 (12.0,30.7)
<b>Income</b>							
<\$20,000	0.78 (0.4,1.3)	2.11 (1.3,3.5)	5.04 (3.6,7.0)	9.96 (7.3,13.6)	14.80 (9.7,22.7)	18.28 (11.6,28.9)	28.09 (14.5,54.3)
\$20k-\$45k	0.73 (0.4,1.4)	1.90 (1.1,3.1)	4.31 (3.0,6.2)	8.08 (5.7,11.5)	11.47 (7.9,16.7)	14.45 (9.5,22.1)	20.96 (13.3,32.9)
\$45k-\$75k	0.81 (0.4,1.6)	2.16 (1.3,3.5)	4.97 (3.4,7.2)	9.25 (6.3,13.5)	13.20 (8.6,20.3)	16.37 (10.2,26.4)	22.88 (13.9,37.7)
\$75k+	1.09 (0.4,2.8)	2.59 (1.3,5.3)	5.45 (3.2,9.2)	10.36 (7.3,14.8)	14.53 (10.0,21.2)	18.44 (11.9,28.5)	27.05 (15.4,47.5)
>\$20,000	0.86 (0.4,1.9)	2.14 (1.0,4.5)	4.91 (1.9,12.7)	9.23 (2.9,29.3)	11.96 (4.1,35.2)	15.82 (4.0,62.0)	22.55 (5.2,97.4)
Inc Ref/DK	1.26 (0.6,2.8)	3.55 (1.5,8.5)	7.58 (3.2,18.0)	12.57 (5.9,26.8)	17.92 (7.5,43.1)	21.03 (8.6,51.2)	26.92 (11.4,63.8)
Inc missing	1.76 (0.3,9.9)	4.00 (1.2,13.7)	9.49 (2.6,35.0)	16.15 (4.9,53.1)	22.63 (6.4,80.3)	28.43 (7.4,108.7)	34.26 (12.3,95.6)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	1.00 (0.5,1.9)	2.69 (1.6,4.5)	5.80 (3.8,8.9)	10.67 (7.3,15.6)	15.01 (10.2,22.0)	18.15 (11.9,27.6)	27.04 (16.5,44.2)
Other Hispanic	1.20 (0.6,2.3)	2.87 (1.6,5.0)	6.19 (3.8,10.2)	10.70 (6.6,17.4)	14.69 (8.7,24.8)	18.39 (10.1,33.5)	25.99 (12.8,52.7)
White	0.75 (0.4,1.5)	1.86 (1.0,3.4)	4.12 (2.7,6.2)	7.69 (5.4,11.0)	10.83 (7.6,15.5)	13.91 (9.1,21.2)	20.39 (12.3,33.8)
Black	1.38 (0.7,2.7)	3.36 (2.1,5.5)	6.82 (4.7,10.0)	12.17 (8.7,16.9)	16.85 (11.9,23.9)	20.27 (13.8,29.7)	29.04 (18.0,46.9)
Other race	3.07 (1.8,5.4)	6.35 (4.0,10.1)	12.01 (6.9,20.8)	19.39 (10.4,36.3)	26.51 (11.8,59.4)	29.82 (14.7,60.5)	44.69 (14.3,139.4)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 15b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 3 Fish, Adults, 21 years and older, by geography

<i>Trophic Level 3 FW+Est Fish</i>	<i>Percentiles (95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.87 (0.5,1.7)	2.24 (1.3,3.7)	5.06 (3.6,7.1)	9.51 (7.0,13.0)	13.78 (9.5,20.1)	17.31 (11.1,27.0)	25.10 (14.9,42.2)
<b>Region<sup>1</sup></b>							
Midwest	0.54 (0.3,1.2)	1.37 (0.7,2.6)	3.05 (1.9,4.9)	5.73 (3.8,8.7)	8.44 (5.4,13.1)	10.73 (6.5,17.8)	15.82 (8.9,28.2)
Northeast	1.02 (0.5,2.2)	2.60 (1.4,4.7)	5.54 (3.7,8.4)	10.70 (7.3,15.8)	15.01 (9.0,24.9)	17.92 (10.6,30.4)	24.92 (13.7,45.5)
South	1.16 (0.7,2.1)	2.86 (1.8,4.7)	6.36 (4.5,9.0)	11.89 (8.4,16.9)	17.04 (11.2,25.8)	21.18 (13.3,33.9)	30.86 (17.3,55.1)
West	1.00 (0.5,2.1)	2.42 (1.4,4.3)	5.14 (3.3,8.0)	8.97 (5.7,14.2)	12.60 (7.7,20.5)	15.39 (9.1,26.1)	21.43 (11.5,39.8)
<b>Coastal Status</b>							
Noncoastal	0.72 (0.4,1.4)	1.85 (1.1,3.2)	4.15 (2.9,6.0)	7.93 (5.6,11.1)	11.29 (7.6,16.8)	14.08 (8.8,22.5)	20.71 (11.6,37.1)
Coastal	1.24 (0.6,2.6)	3.08 (1.8,5.2)	6.56 (4.5,9.6)	11.97 (8.6,16.6)	17.10 (11.7,25.0)	20.70 (13.8,31.1)	29.55 (18.0,48.6)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	1.07 (0.5,2.4)	2.66 (1.4,5.1)	5.52 (3.1,9.8)	9.67 (5.6,16.7)	13.01 (7.4,22.9)	16.60 (8.9,30.8)	22.27 (11.5,43.2)
Atlantic	1.34 (0.5,3.7)	3.09 (1.4,7.0)	6.39 (3.5,11.6)	11.67 (7.7,17.8)	16.27 (10.6,24.9)	19.93 (12.4,32.1)	27.66 (15.3,50.0)
Gulf of Mexico	2.76 (1.1,7.2)	6.54 (3.4,12.7)	12.33 (7.3,20.9)	20.44 (13.0,32.2)	27.82 (17.2,45.1)	33.74 (19.0,59.9)	46.12 (21.8,97.7)
Great Lakes	0.85 (0.3,2.1)	2.12 (1.1,4.1)	4.37 (2.6,7.3)	8.23 (5.0,13.4)	11.40 (6.6,19.6)	13.57 (8.1,22.7)	19.78 (10.4,37.6)
Inland Northeast	0.77 (0.3,2.2)	2.05 (0.8,5.0)	4.58 (2.6,8.1)	8.86 (6.1,12.9)	13.07 (8.0,21.3)	15.78 (9.2,27.1)	22.37 (11.6,43.2)
Inland Midwest	0.49 (0.2,1.0)	1.21 (0.7,2.2)	2.75 (1.8,4.3)	5.16 (3.3,8.1)	7.34 (4.5,11.9)	9.52 (5.2,17.4)	14.24 (6.9,29.5)
Inland South	0.95 (0.6,1.6)	2.41 (1.6,3.6)	5.21 (3.7,7.3)	9.34 (6.5,13.5)	13.31 (8.3,21.2)	16.48 (9.5,28.5)	25.89 (10.9,61.5)
Inland West	0.94 (0.4,2.2)	2.22 (1.1,4.3)	4.74 (2.9,7.7)	8.39 (5.1,13.7)	11.90 (6.9,20.6)	14.83 (8.0,27.5)	20.49 (10.2,41.0)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

Table 16a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 4 Fish, Adults, 21 years and older, by demographics

<i>Trophic Level 4 FW+Est Fish</i>	<i>Percentiles (95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.26 (0.1,0.5)	0.80 (0.4,1.5)	2.16 (1.3,3.7)	4.97 (3.1,8.1)	8.19 (5.3,12.7)	11.53 (7.7,17.3)	20.71 (13.2,32.4)
<b>Gender</b>							
Female	0.21 (0.1,0.4)	0.64 (0.3,1.2)	1.71 (1.0,3.1)	3.91 (2.3,6.8)	6.29 (3.7,10.7)	8.52 (4.9,14.7)	15.45 (9.3,25.7)
Male	0.35 (0.2,0.7)	1.08 (0.6,2.0)	2.83 (1.7,4.7)	6.44 (4.1,10.1)	10.56 (7.0,16.0)	14.81 (9.7,22.6)	27.06 (15.8,46.3)
<b>Age</b>							
21 to <35 yrs	0.19 (0.1,0.4)	0.59 (0.3,1.0)	1.69 (1.1,2.7)	4.21 (2.7,6.5)	7.01 (4.5,10.9)	10.19 (6.2,16.8)	18.43 (10.4,32.8)
35 to <50 yrs	0.22 (0.1,0.5)	0.69 (0.3,1.4)	1.78 (0.9,3.7)	4.19 (2.2,7.8)	6.69 (3.6,12.6)	9.28 (5.2,16.5)	16.62 (9.5,29.0)
50 to <65 yrs	0.48 (0.2,1.0)	1.28 (0.7,2.4)	3.26 (2.0,5.4)	7.09 (4.4,11.3)	11.79 (7.3,18.9)	15.98 (9.6,26.7)	26.88 (15.5,46.7)
65+ yrs	0.32 (0.1,0.8)	0.91 (0.4,2.1)	2.33 (1.1,4.9)	5.05 (2.5,10.3)	7.89 (3.8,16.3)	10.66 (5.2,21.7)	19.39 (10.7,35.2)
Women of Childbearing Age <sup>1</sup>	0.12 (0.1,0.2)	0.42 (0.2,0.8)	1.23 (0.7,2.2)	2.91 (1.6,5.3)	4.72 (2.5,8.8)	6.48 (3.5,12.1)	11.63 (6.0,22.6)
<b>Income</b>							
<\$20,000	0.26 (0.1,0.5)	0.85 (0.5,1.5)	2.43 (1.5,3.8)	5.74 (3.8,8.7)	9.57 (6.1,15.0)	12.71 (8.2,19.7)	21.80 (13.5,35.1)
\$20k-\$45k	0.22 (0.1,0.5)	0.67 (0.3,1.6)	1.79 (0.7,4.3)	4.16 (1.8,9.5)	6.55 (2.7,16.1)	9.09 (3.9,20.9)	17.92 (9.9,32.6)
\$45k-\$75k	0.20 (0.1,0.5)	0.67 (0.3,1.3)	1.77 (0.9,3.5)	4.07 (2.1,7.8)	6.45 (3.3,12.6)	9.02 (5.0,16.3)	16.20 (9.1,29.0)
\$75k+	0.34 (0.2,0.7)	0.99 (0.5,1.8)	2.55 (1.5,4.2)	6.01 (4.0,9.1)	9.48 (6.2,14.6)	13.59 (8.4,22.1)	23.79 (13.3,42.7)
>\$20,000	0.29 (0.1,0.8)	0.90 (0.4,2.2)	2.60 (1.1,6.2)	5.59 (2.5,12.4)	9.12 (3.8,22.1)	11.80 (4.9,28.3)	20.13 (7.7,52.3)
Inc Ref/DK	0.31 (0.1,0.8)	1.03 (0.5,2.2)	2.69 (1.3,5.6)	6.07 (2.9,12.6)	9.10 (3.7,22.2)	11.73 (4.5,30.5)	22.29 (9.7,51.2)
Inc missing	0.50 (0.1,3.5)	1.30 (0.3,5.5)	3.65 (1.1,12.4)	9.76 (2.6,36.2)	16.46 (4.3,63.6)	23.98 (5.1,111.8)	42.98 (7.5,245.0)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	0.29 (0.2,0.5)	0.87 (0.5,1.5)	2.34 (1.4,4.0)	5.31 (3.0,9.5)	8.80 (5.0,15.4)	12.05 (6.9,21.0)	20.34 (10.9,38.1)
Other Hispanic	0.30 (0.1,0.9)	0.87 (0.3,2.2)	2.15 (0.9,5.1)	4.65 (1.9,11.4)	7.85 (3.5,17.7)	10.68 (4.8,23.6)	20.41 (8.0,51.9)
White	0.22 (0.1,0.5)	0.66 (0.3,1.3)	1.74 (0.9,3.2)	3.92 (2.2,6.8)	6.18 (3.6,10.6)	8.38 (5.0,14.1)	15.63 (10.0,24.4)
Black	0.44 (0.2,0.9)	1.29 (0.7,2.4)	3.31 (1.9,5.8)	7.14 (4.1,12.6)	11.61 (7.2,18.8)	15.67 (9.7,25.4)	26.57 (15.7,45.1)
Other race	0.91 (0.4,2.0)	2.56 (1.4,4.8)	6.32 (3.7,10.9)	13.80 (7.8,24.5)	19.74 (10.8,36.2)	26.36 (14.0,49.6)	51.03 (20.3,128.5)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

Table 16b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 4 Fish, Adults, 21 years and older, by geography

<i>Trophic Level 4 FW+Est Fish</i>	<i>Percentiles (95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.26 (0.1,0.5)	0.80 (0.4,1.5)	2.16 (1.3,3.7)	4.97 (3.1,8.1)	8.19 (5.3,12.7)	11.53 (7.7,17.3)	20.71 (13.2,32.4)
<b>Region<sup>1</sup></b>							
Midwest	0.20 (0.1,0.6)	0.61 (0.2,1.6)	1.63 (0.6,4.2)	3.83 (1.7,8.9)	6.13 (2.6,14.2)	8.65 (4.1,18.2)	15.80 (7.9,31.4)
Northeast	0.21 (0.1,0.5)	0.70 (0.4,1.4)	1.97 (1.2,3.3)	4.53 (2.9,7.0)	6.94 (4.4,10.9)	9.53 (6.1,14.8)	19.43 (9.8,38.7)
South	0.31 (0.2,0.6)	0.98 (0.6,1.7)	2.58 (1.5,4.4)	6.11 (4.0,9.4)	10.15 (6.8,15.2)	14.10 (9.5,21.0)	25.87 (16.6,40.4)
West	0.29 (0.1,0.6)	0.87 (0.5,1.6)	2.28 (1.3,3.9)	5.21 (3.2,8.5)	8.38 (5.1,13.8)	11.36 (6.8,19.1)	18.43 (9.9,34.2)
<b>Coastal Status</b>							
Noncoastal	0.25 (0.1,0.5)	0.77 (0.4,1.4)	2.08 (1.2,3.5)	4.74 (2.9,7.7)	7.66 (4.7,12.4)	10.61 (6.6,17.1)	19.66 (11.6,33.3)
Coastal	0.28 (0.1,0.6)	0.86 (0.4,1.8)	2.30 (1.2,4.4)	5.52 (3.4,9.1)	9.03 (5.8,14.1)	12.76 (8.6,18.9)	22.35 (14.6,34.3)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	0.26 (0.1,0.6)	0.81 (0.4,1.8)	2.18 (1.1,4.5)	5.29 (2.9,9.7)	9.05 (5.2,15.8)	12.67 (6.9,23.2)	20.66 (10.9,39.0)
Atlantic	0.26 (0.1,0.8)	0.80 (0.3,2.1)	2.11 (0.9,5.0)	4.59 (1.9,11.0)	7.17 (2.9,17.6)	9.72 (4.1,23.0)	17.78 (9.2,34.2)
Gulf of Mexico	0.63 (0.3,1.3)	1.80 (0.9,3.5)	4.76 (2.8,8.1)	10.74 (6.9,16.8)	16.98 (10.7,26.9)	23.32 (14.2,38.3)	42.52 (21.3,85.0)
Great Lakes	0.20 (0.1,0.4)	0.57 (0.2,1.3)	1.49 (0.7,3.4)	3.71 (2.0,6.8)	5.93 (3.2,10.9)	8.34 (4.7,14.9)	14.84 (8.1,27.1)
Inland Northeast	0.17 (0.1,0.4)	0.59 (0.3,1.3)	1.68 (0.9,3.2)	3.95 (2.3,6.8)	6.15 (3.5,10.8)	8.50 (4.9,14.8)	20.29 (5.9,69.7)
Inland Midwest	0.20 (0.1,0.6)	0.62 (0.2,1.9)	1.67 (0.6,4.7)	3.85 (1.5,10.2)	6.14 (2.3,16.4)	8.70 (3.6,20.9)	15.81 (6.8,36.5)
Inland South	0.31 (0.2,0.5)	0.95 (0.6,1.5)	2.52 (1.7,3.8)	5.68 (3.7,8.7)	9.66 (6.2,15.1)	13.66 (8.0,23.2)	23.79 (13.6,41.6)
Inland West	0.34 (0.2,0.7)	0.93 (0.5,1.8)	2.42 (1.3,4.5)	5.15 (2.8,9.4)	7.72 (4.0,15.0)	9.96 (4.9,20.4)	15.98 (6.9,37.3)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

### 5.3 Comparison of UFCR Estimates: Modified NCI Method and NCI Method

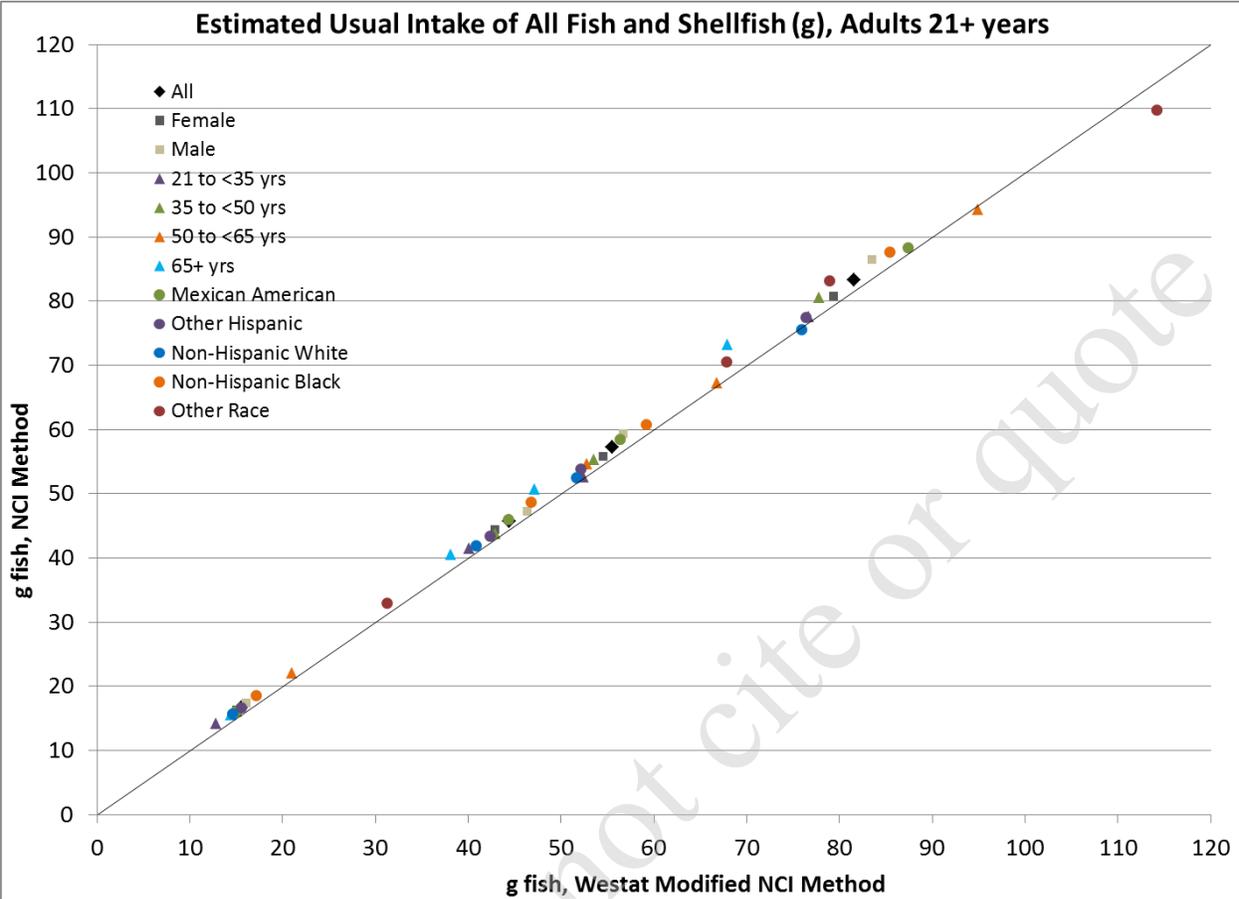
In order to assess EPA’s Modified NCI Method, we ran models using both the Modified NCI Method and the NCI Method. We ran four models that differed by dependent variable (i.e., fish type), population subset, and predictors. The four models are described in Table 17.

**Table 17. Models used to compare UFCR Estimates from the Modified NCI Method and the NCI Method**

Model	Dependent variable	Population	Predictors
1	Total fish	Adults, ≥21 years	age, race, income, body weight, and frequency of fish consumption
2	FW+Est fish	Total population	Gender and frequency of fish consumption
3	Marine fish	Total population	Gender and frequency of fish consumption
4	Estuarine fish	Total population	Gender and frequency of fish consumption

These models omitted significant predictors (e.g., coastal/inland region and interactions) which reduce the accuracy of the estimates but speed up the process. In order to compare the variance estimates between the two methods, we ran the total fish model for each replicate weight (i.e., 64 times) to obtain 95% confidence intervals. For the NCI Method, this took 3 days of continuous computer time, split into 4 parts to use the full processing capacity of the computer.

Figure 1 shows the results from model 1. The points on the lower left are 50th percentiles and as you move up toward the upper right, there are the 90th, 95th, and 99th percentiles. If the estimates from both models were identical, the points would fall on the diagonal line. A point below the line indicates that EPA’s Modified NCI Method produced a higher estimate and a point above the line indicates that EPA’s Modified NCI Method produced a lower estimate. The differences range from 0 to 5%.



**Figure 1. Estimated usual intake of total fish (g), comparison of EPA’s Modified NCI Method and NCI Method**

Figure 2 shows the results from the comparison of FW+Estuarine estimates. The EPA estimates are about 10% higher than the NCI Method estimates. The comparisons of estimates for Marine fish (Figure 3) show no consistent difference between the two methods. Figure 4 shows the difference between EPA’s Modified NCI Method and NCI Method for Estuarine fish. As with FW+Estuarine, EPA’s estimates are about 10% higher.

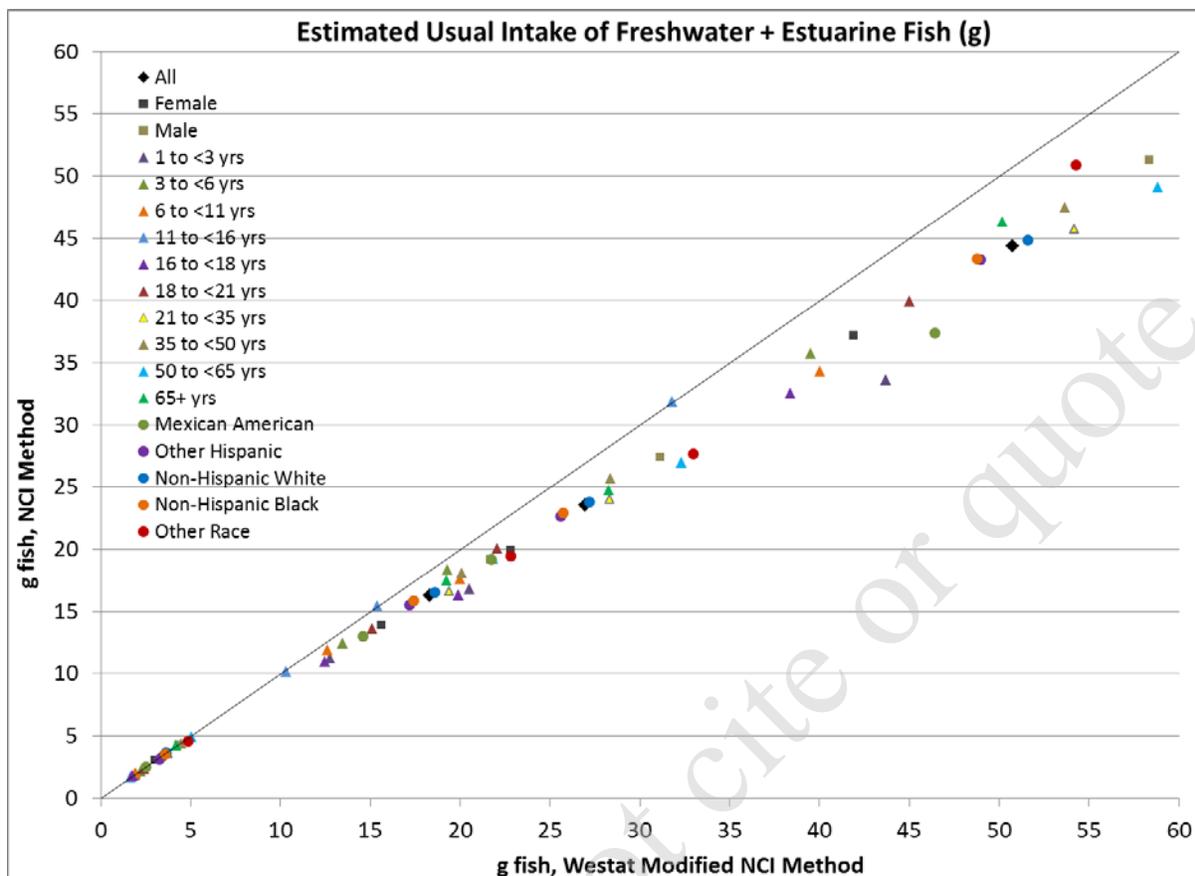
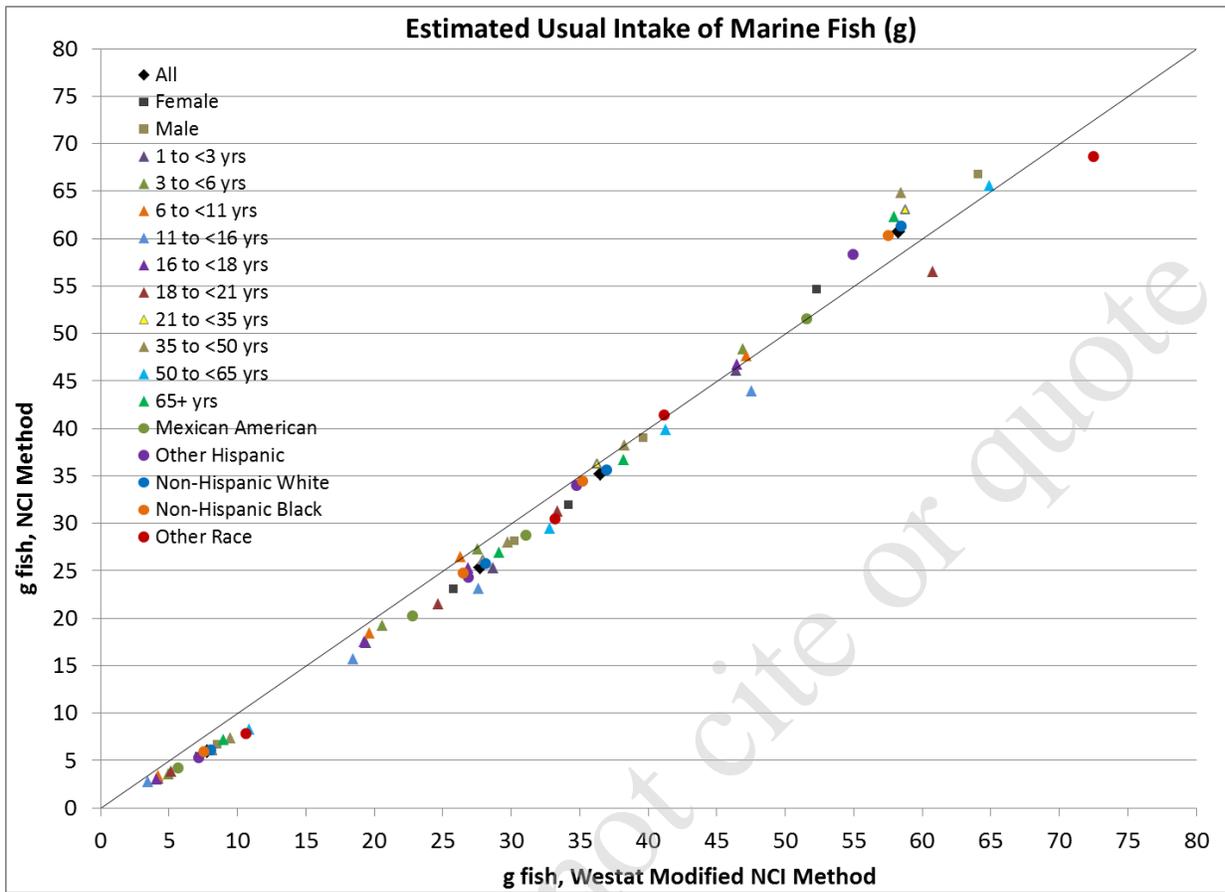
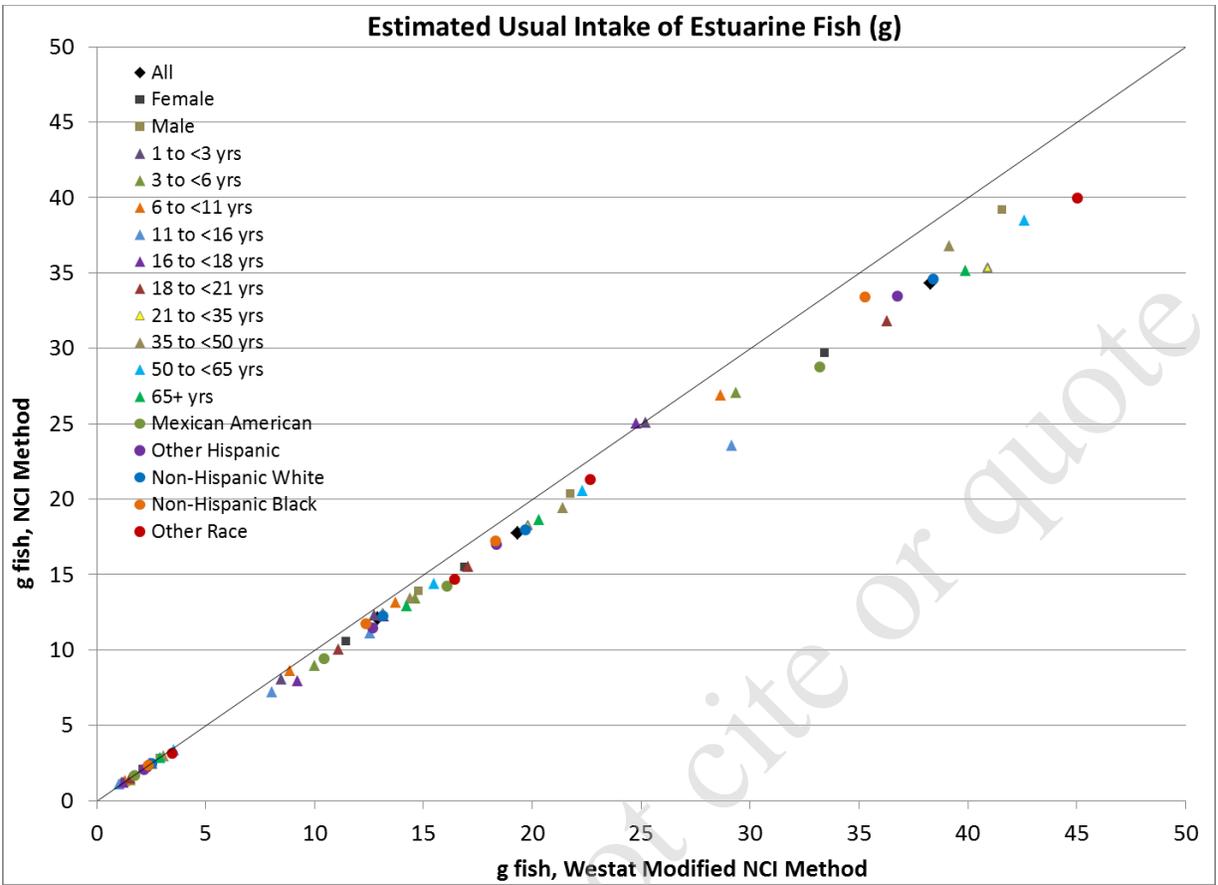


Figure 2. Estimated usual intake of freshwater + estuarine fish (g), comparison of EPA's Modified NCI Method and NCI Method

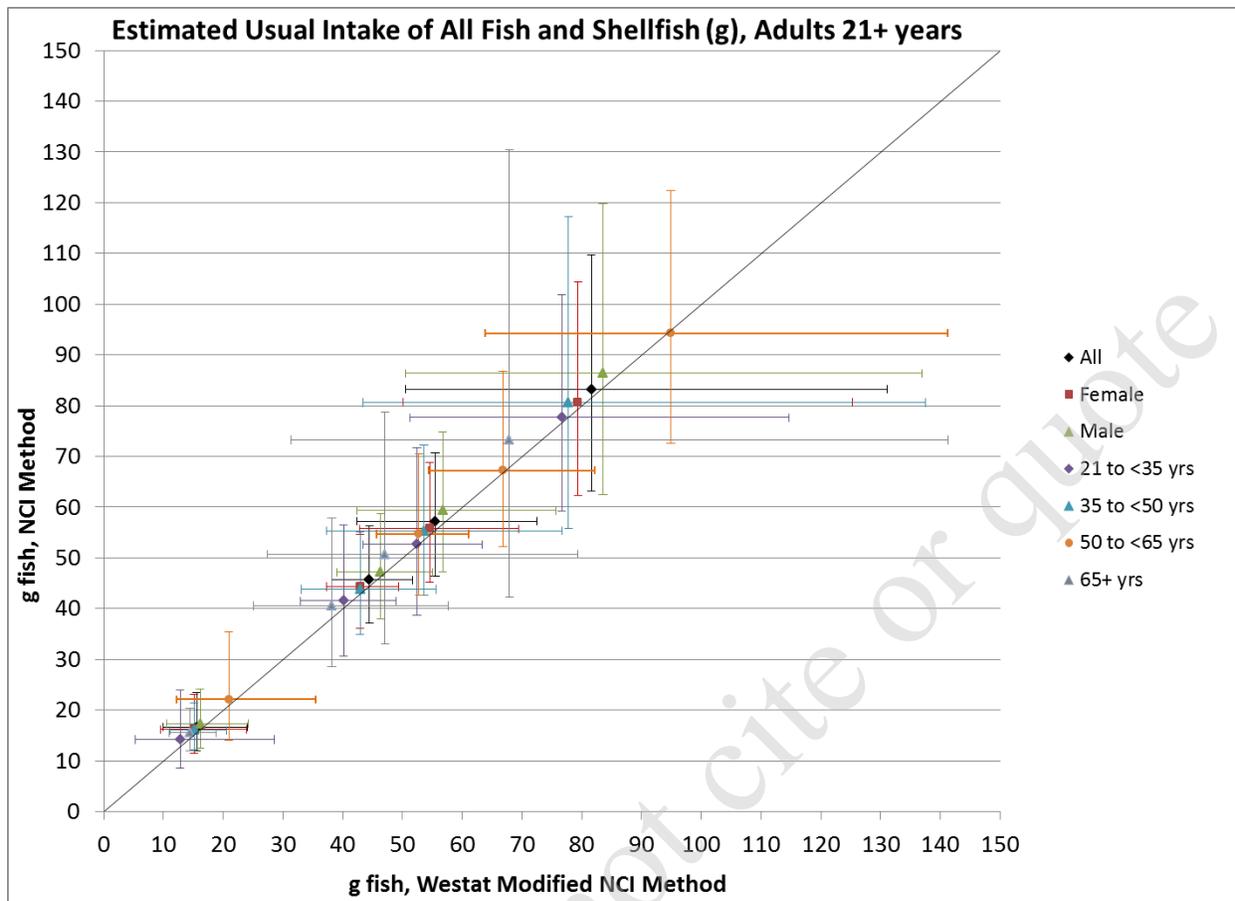


**Figure 3. Estimated usual intake of marine fish (g), comparison of EPA's Modified NCI Method and NCI Method**



**Figure 4. Estimated usual intake of estuarine fish (g), comparison of EPA’s Modified NCI Method and NCI Method**

The final plot, Figure 5, shows a subset of the points in Figure 1; however, with 95% CIs. The horizontal bars are 95% CIs of EPA’s Modified NCI Method estimates and the vertical bars are the 95% CIs of NCI Method estimates. It shows that even if the estimates were off by greater than 10% they would still fall within the 95CIs of each other. In general, the confidence intervals using the Modified NCI Method are wider than for the NCI Method.



**Figure 5. Estimated usual intake of total fish (g), comparison of EPA’s Modified NCI Method and NCI Method with 95% CIs**

There is a trade-off in the estimation. In order to get results from the NCI Method within a reasonable time, we would have had to use far fewer predictors in the modeling and possibly fit an uncorrelated model. Given the differences observed between EPA’s Modified NCI Method and the NCI Method, we feel that using the Modified NCI method is a better compromise than fitting a greatly simplified model using the NCI method.

## 5.4 Uncertainty

### 5.4.1 Habitat Assignments

There is some uncertainty associated with the assignment of habitats to reported fish consumption. When the raw data are processed by NHANES, fish species reported consumed are combined. Generally, these groupings are based on taxonomic groups. This grouping of species complicates the assignment of habitat because in some cases, the grouped fish can inhabit different habitats and there is no way to determine the exact species the participant consumed. For some species,

apportioning relied on NOAA landings data to assign species of fish groups with many species (e.g., clams) to habitats.

## 5.4.2 NCI Method

The variance or confidence interval is generally larger when using the Modified NCI Method (or the full NCI Method) than when directly estimating using the 24-hour recall amounts. This difference is due, in part, to uncertainty in estimation of the relative magnitude of the within- and between-person variance components used in the model for the NCI method.

Measurements of usual fish consumption are very difficult to obtain. Since usual fish consumption is a long-term average, we would need many 24-hour recalls over a long time to approximate what “usual intake” is trying to assess, thus we rely on a statistical model and associated assumptions to estimate usual intake.

The model makes certain assumptions, such as, 24-hour recalls provide unbiased estimates of fish consumption, all respondents are fish consumers (at least occasionally), and the distribution of fish consumption among those reporting consumption in a 24-hour recall is normally distributed for some power transformation. The validity of these assumptions can be discussed and, to some extent evaluated using data.

The model also makes some assumptions to simplify the computations, such as variance components are normally distributed, additive in the transformed scale, and linearly correlated. It is suspected that these assumptions, compared to other model assumptions that might be made, have relatively little effect, but it is difficult to assess as alternative assumptions are difficult to compute.

If the model assumptions are accepted as reasonable, then the question is whether the estimates from the model are biased. The estimates are based on maximum likelihood which is generally a good computational approach for all sample sizes. However, convergence theory says maximum likelihood is best with large sample sizes. If the parameters are biased because the sample size is small, the usual consumption estimates may be more likely to be an under-estimate as opposed to an over-estimate. At the same time, we have hundreds or thousands of respondents reporting fish consumption and we expect the estimates to have relatively little bias compared to the size of the confidence intervals.

In our opinion, the NCI method makes reasonable assumptions and, given the assumptions, has adequate sample size to provide estimates with little bias relative to the confidence interval width. For estimating usual fish consumption, the NCI method is the best approach that we are aware of. At the same time, the estimates may be biased. Future work could include a comparison of usual fish consumption from the NCI method to results using other assumptions or calculation methods to provide some confidence that the NCI method, even if biased, is the best available or at least is reasonable and acceptable for use.

### **5.4.3 Regions**

The regional and coastal estimates are not as precise as for the total US due to smaller sample sizes. There are also some questions regarding the weighting. The US Census Regions are used in the calculation of the weights. Some of the coastal/noncoastal regions cross these Census Regions. However, the weights also adjust for oversampling of some populations and non-response to the survey, so we believe it is important to use the weights. While the estimates may be more imprecise and there may be some uncertainty due to the weighting, they are still a better representation for each coastal/noncoastal area than using the national estimate for all.

### **5.4.4 Seasonality**

Fish consumption, especially of recreationally or sport caught fish, is likely to vary by season. NHANES collects data throughout the year. However, they generally collect data in northern counties in the summer and southern counties in the winter. Thus the estimates may overestimate usual intake in the northern regions of the U.S. and underestimate usual intake in the southern regions of the U.S. if summer fish consumption is higher than winter fish consumption. There is no way to estimate this season effect as there are no NHANES data from northern counties in the winter and southern counties in the summer.

### **5.4.5 Precision of Estimates**

The 95 percent confidence intervals are presented to show the precision of the estimates. Tighter confidence intervals are found on more precise estimates and wider confidence limits are found on less precise estimates. Even though an estimate for a subpopulation, say Non-Hispanic Blacks, may be imprecise, it is likely to be closer to the true value than is the estimate for the population as a whole or the estimate for another subpopulation. As described in the Methods section, the Modified NCI Method (and the NCI Method) uses predictors related to fish consumption, such as race/ethnicity, to better predict both the probability of consumption and the amount consumed on a given consumption day. As a result, the differences between subpopulations generally reflect true differences in consumption as opposed to uncertainty in the estimates. The values in the tables are the best estimates of the percentiles of fish consumption for the given subpopulations. If one was concerned about the uncertainty in the estimate and wanted to be conservative to ensure the level of protection desired, a higher percentile of fish consumption could be chosen, say the 95<sup>th</sup> percentile instead of the 90<sup>th</sup>, or the upper limit of the 95 percent confidence interval around the percentile of choice could be used.

## 6 References

- Ahuja JKA, Montville JB, Omolewa-Tomobi G, Heendeniya KY, Martin CL, Steinfeldt LC, Anand J, Adler ME, LaComb RP, and Moshfegh AJ. (2012) USDA Food and Nutrient Database for Dietary Studies, 5.0. U.S. Department of Agriculture, Agricultural Research Service, Food Surveys Research Group, Beltsville, MD.
- Dodd KW, Guenther PM, Freedman LS, Subar AF, Kipnis V, Midthune D, Tooze JA, Krebs-Smith SM. (2006) Statistical methods for estimating usual intake of nutrients and foods: a review of the theory. *J Am Diet Assoc* 2006 Oct;106(10):1640-50. Review.
- Freedman LS, Guenther PM, Dodd KW, Krebs-Smith SM, Midthune D. (2010) The population distribution of ratios of usual intakes of dietary components that are consumed every day can be estimated from repeated 24-hour recalls. *J Nutr* 2010 Jan;140(1):111-6.
- Mahaffey, K.R., Clickner, R.P., and Jeffries, R.A. (2009). Adult women's blood mercury concentrations vary regionally in the United States: Association with patterns of fish consumption (NHANES 1999-2004). *Environmental Health Perspectives*, 117(1), 47-53.
- National Center of Health Statistics. (2013) About the National Health and Nutrition Examination Survey. Available at: [http://www.cdc.gov/nchs/nhanes/about\\_nhanes.htm](http://www.cdc.gov/nchs/nhanes/about_nhanes.htm) Accessed June 26, 2013.
- National Center of Health Statistics. (2009) National Health and Nutrition Examination Survey MEC In-Person Dietary Interviewers Procedures Manual. Available at: [http://www.cdc.gov/nchs/data/nhanes/nhanes\\_09\\_10/DietaryInterviewers\\_Inperson.pdf](http://www.cdc.gov/nchs/data/nhanes/nhanes_09_10/DietaryInterviewers_Inperson.pdf) Accessed June 26, 2013.
- National Center of Health Statistics. Continuous NHANES Web Tutorial. Variance Estimation. Key concepts about variance estimation within NHANES. Available at: <http://www.cdc.gov/nchs/tutorials/NHANES/SurveyDesign/VarianceEstimation/Info1.htm>
- National Center for Health Statistics. (2005.) Analytic and Reporting Guidelines: The National Health and Nutrition Examination Survey Examination Survey. December 2005. Available at: [http://www.cdc.gov/nchs/data/nhanes/nhanes\\_03\\_04/nhanes\\_analytic\\_guidelines\\_dec\\_2005.pdf](http://www.cdc.gov/nchs/data/nhanes/nhanes_03_04/nhanes_analytic_guidelines_dec_2005.pdf)
- Tooze JA, Kipnis V, Buckman DW, Carroll RJ, Freedman LS, Guenther PM, Krebs-Smith SM, Subar AF, Dodd KW. (2010) A mixed-effects model approach for estimating the distribution of usual intake of nutrients: the NCI method. *Stat Med* 2010 Nov 30;29(27):2857-68.
- Tooze JA, Midthune D, Dodd KW, Freedman LS, Krebs-Smith SM, Subar AF, Guenther PM, Carroll RJ, Kipnis V. (2006) A new statistical method for estimating the usual intake of

- episodically consumed foods with application to their distribution. *J Am Diet Assoc* 2006 Oct;106(10):1575-87.
- U.S. Department of Agriculture. (2010) Food and Nutrient Database for Dietary Studies, 4.1. Beltsville, MD: Agricultural Research Service, Food Surveys Research Group.
- U.S. Department of Agriculture. (2008) Food and Nutrient Database for Dietary Studies, 3.0. Beltsville, MD: Agricultural Research Service, Food Surveys Research Group.
- U.S. Department of Agriculture. (2006) Food and Nutrient Database for Dietary Studies, 2.0. Beltsville, MD: Agricultural Research Service, Food Surveys Research Group.
- U.S. Environmental Protection Agency. (2003) Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000): Technical Support Document Volume 2: Development of National Bioaccumulation Factors. EPA-822-R-03-030. Washington, DC: U.S. Environmental Protection Agency, Office of Science and Technology, Office of Water.
- U.S. Environmental Protection Agency. (2002) Estimated Per Capita Fish Consumption in the United States. Washington DC. EPA-821- C- 02-003.
- U.S. Environmental Protection Agency. (2002) Trophic Level and Exposure Analyses for Selected Piscivorous Birds and Mammals. Volume III: Appendices. Washington, DC: U.S. Environmental Protection Agency, Office of Science and Technology, Office of Water.
- U.S. Environmental Protection Agency. (1997) Mercury study report to Congress. 1997. In: An Assessment of Exposure to Mercury in the United States, Vol 4. EPA-452/R-97-006. Washington, DC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards and Office of Research and Development.

## Appendix A

### Habitat Apportionment Documentation

DRAFT Do not cite or quote

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Abalone	1	0	0	100% Marine
Anchovy	0	0	1	100% Estuarine
Barracuda	1	0	0	100% Marine
Carp	0	1	0	100% Freshwater
Carp				100% freshwater
Bream				≈100% freshwater, but not in US waters; very rarely consumed in US (not in NOAA import data); 0 recorded in 2007-08 NHANES AM/PM file)
Buffalofish				100% freshwater
Sucker				100% freshwater
Catfish	0	0.9	0.1	Apportioned with NOAA landings data.
Blue catfish				80% FW/20%Est, 40% of total catch
Channel catfish				100% FW, 32% of total catch
Flathead catfish				100% FW, 3.6% of total catch
Catfishes and Bullheads				catch-all category, apportioned according to above catch proportions, 24% of total catch
Clam	0.84	0	0.16	Apportioned with NOAA landings data.
Arc/Blood clam				100% Est, <0.5% of total catch
Atlantic jackknife clam				100% Est, <0.5% of total catch
Atlantic surf clam				100% marine, 41.9% of total catch
Butter clam				100% Est, <0.5% of total catch
Manila clam				100% Est, 1% of total catch
Northern quahog clam				100% Est, 4.9% of total catch
Ocean quahog clam				100% marine, 35.4% of total catch
Pacific geoduck clam				100% Est, 3.1% of total catch
Pacific littleneck clam				100% Est, <0.5% of total catch
Pacific razor clam				100% Marine, <0.5% of total catch
Pacific gaper clam				100% Est, <0.5% of total catch
Quahog clam				100% Est, 0.7% of total catch
Softshell clam				100% Est, 4.8% of total catch
Clams or Bivalves				catch-all category, apportioned according to above catch proportions, 7.8% of total catch
Cod	1	0	0	100% Marine
Conch	1	0	0	100% Marine
Crab	0.273	0	0.727	
Atlantic rock crab				100% Marine, 0.9% of total catch
Blue crab				100% Est, 52.2% of total catch
Blue peeler crab				100% Est, 0.5% of total catch
Blue soft crab				100% Est, <0.5% of total catch
Blue crab, soft and peeler				100% Est, <0.5% of total catch
Deepsea golden crab				100% Marine, <0.5% of total catch
Deepsea red crab				100% Marine, <0.5% of total catch

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Dungeness crab				100% Est, 18.1% of total catch
Florida stone claws crab				50% Est/50% Marine (2 species), 1.5% of total catch
Green crab				100% Est, <0.5% of total catch
Horseshoe crab				used for bait and fertilizer, not consumed by humans
Jonah crab				100% Marine, 2.7% of total catch
King crab				100% Marine, 6.5% of total catch
Red rock crab				100% Est, <0.5% of total catch
Snow crab				100% Marine, 14.9% of total catch
Southern tanner crab				100% Marine, 0.8% of total catch
Spider crab				100% Marine, <0.5% of total catch
Crabs				catch-all category, apportioned according to above catch proportions, 0.8% of total catch
<b>Crayfish</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>100% Freshwater</b>
<b>Croaker</b>	<b>0.071</b>	<b>0.05</b>	<b>0.879</b>	
Croaker				Apportioned with NOAA landings data. Atlantic Croaker (estuarine) 99.6% of total catch. Pacific croaker (marine) <0.5% of total catch. Weighted* 35% of group.
Angelfish				Aquarium fish, not consumed in US
Butterflyfish				Aquarium fish, not consumed in US
Drumfish				100% Estuarine (estuarine and marine caught near-shore) Weighted 10% of group.
Goatfish/Weke				90% Marine/10% Estuarine (one Hawaiian species is estuarine) Weighted 5% of group.
Kingfish				100% Estuarine (estuarine and marine caught near-shore) Weighted 25% of group.
Sea trout				100% Estuarine (estuarine and marine caught near-shore) Weighted 5% of group.
Freshwater Sheepshead/Goo/Gaspergou				100% Freshwater Weighted 5% of group.
Spadefish				2 popular food species in US, one is estuarine/marine the other is marine. NOAA landings database does not speciate. Assum 50% estuarine and 50% Marine. Weighted 5% of group.
Spot				100% Estuarine (estuarine and marine caught near-shore) Weighted 5% of group.
Surgeonfish				Aquarium fish, not consumed in US
Weakfish				Marine and esturaine species. Weighted 5% of group.
<b>Eel</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>100% Freshwater</b>
<b>Flatfish</b>	<b>0.87</b>	<b>0</b>	<b>0.13</b>	<b>Apportioned with NOAA landings data.</b>
FLOUNDER, ARROWTOOTH				100% Marine, 15.8% of total catch
FLOUNDER, FOURSPOT				100% Marine, <0.5% of total catch
FLOUNDER, PACIFIC, SANDDAB				100% Marine, <0.5% of total catch
FLOUNDER, SOUTHERN				100% Estuarine, <0.5% of total catch
FLOUNDER, STARRY				100% Estuarine, <0.5% of total catch
FLOUNDER, SUMMER				100% Estuarine, 1.9% of total catch
FLOUNDER, WINDOWPANE				100% Estuarine, <0.5% of total catch
FLOUNDER, WINTER				100% Estuarine, 0.7% of total catch
FLOUNDER, WITCH				100% Marine, <0.5% of total catch
FLOUNDER, YELLOWTAIL				100% Marine, 0.5% of total catch

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
FLOUNDER,ATLANTIC,PLAICE				100% Marine, 0.5% of total catch
FLOUNDER,PACIFIC,SANDDAB				100% Marine, <0.5% of total catch
FLOUNDERS, RIGHTEYE				50% Marine/50% Estuarine, <0.5% of total catch
SOLE, BUTTER				100% Marine, <0.5% of total catch
SOLE, CURLFIN				100% Marine, <0.5% of total catch
SOLE, DOVER				100% Marine, <0.5% of total catch
SOLE, ENGLISH				100% Estuarine, <0.5% of total catch
SOLE, FANTAIL				100% Marine, <0.5% of total catch
SOLE, FLATHEAD				100% Estuarine, 7.5% of total catch
SOLE, PETRALE				100% Marine, <0.5% of total catch
SOLE, REX				100% Marine, 1.9% of total catch
SOLE, ROCK				100% Marine, 18.1% of total catch
SOLE, SAND				100% Estuarine, <0.5% of total catch
SOLE, YELLOWFIN				100% Marine, 37.3% of total catch
HALIBUT, ATLANTIC				100% Marine, <0.5% of total catch
HALIBUT, CALIFORNIA				100% Estuarine, <0.5% of total catch
HALIBUT, GREENLAND				100% Marine, 1.4% of total catch
HALIBUT, PACIFIC				75% Marine (adults)/25% Estuarine (young), 9.2% of total catch
<b>Flounder</b>	<b>0.85</b>	<b>0</b>	<b>0.15</b>	<b>Apportioned with NOAA landings data.</b>
FLOUNDER, ARROWTOOTH				100% Marine, 78.5% of total catch
FLOUNDER, FOURSPOT				100% Marine, <0.5% of total catch
FLOUNDER, PACIFIC, SANDDAB				100% Marine, <0.5% of total catch
FLOUNDER, SOUTHERN				100% Estuarine, 1.7% of total catch
FLOUNDER, STARRY				100% Estuarine, <0.5% of total catch
FLOUNDER, SUMMER				100% Estuarine, 9.4% of total catch
FLOUNDER, WINDOWPANE				100% Estuarine, <0.5% of total catch
FLOUNDER, WINTER				100% Estuarine, 0.3% of total catch
FLOUNDER, WITCH				100% Marine, 1.5% of total catch
FLOUNDER, YELLOWTAIL				100% Marine, 2.5% of total catch
FLOUNDER,ATLANTIC,PLAICE				100% Marine, 2.4% of total catch
FLOUNDER,PACIFIC,SANDDAB				100% Marine, <0.5% of total catch
FLOUNDERS, RIGHTEYE				50% Marine/50% Estuarine, <0.5% of total catch
<b>Sole</b>	<b>0.89</b>	<b>0</b>	<b>0.11</b>	<b>Apportioned with NOAA landings data.</b>
SOLE, BUTTER				100% Marine, <0.5% of total catch
SOLE, CURLFIN				100% Marine, <0.5% of total catch
SOLE, DOVER				100% Marine, 5.6% of total catch
SOLE, ENGLISH				100% Estuarine, <0.5% of total catch
SOLE, FANTAIL				100% Marine, <0.5% of total catch
SOLE, FLATHEAD				100% Estuarine, 10.8% of total catch
SOLE, PETRALE				100% Marine, 0.6% of total catch

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
SOLE, REX				100% Marine, 2.7% of total catch
SOLE, ROCK				100% Marine, 26.1% of total catch
SOLE, SAND				100% Estuarine, <0.5% of total catch
SOLE, YELLOWFIN				100% Marine, 54.0% of total catch
<b>Halibut</b>	<b>0.78</b>	<b>0</b>	<b>0.22</b>	<b>Apportioned with NOAA landings data.</b>
HALIBUT, ATLANTIC				100% Marine, <0.5% of total catch
HALIBUT, CALIFORNIA				100% Estuarine, 0.9% of total catch
HALIBUT, GREENLAND				100% Marine, 13.0% of total catch
HALIBUT, PACIFIC				75% Marine (adults)/25% Estuarine (young), 86.0% of total catch
<b>Haddock</b>	<b>0.945</b>	<b>0.05</b>	<b>0.006</b>	
Haddock				100% Marine. Weighted 50% of group.
Blowfish				Not consumed in US
Burbot				100% Freshwater. Weighted 5% of group.
Cusk				100% Marine. Weighted 5% of group.
Hake				9 species: 8 are marine (89%) and 1 is estuarine (11%). Weighted 5% of group.
Ling				100% Marine. Weighted 5% of group.
Monkfish				100% Marine. Weighted 5% of group.
Scrod				100% Marine. Weighted 25% of group.
<b>Herring</b>	<b>0.304</b>	<b>0.01</b>	<b>0.686</b>	
Herring				Apportioned with NOAA landings data. (0.6%M/0.3\$FW/99.1%Est) Weighted 60% of group.
HERRING, ATLANTIC				100% Estuarine, 64.3% of total catch
HERRING, ATLANTIC THREAD				100% Marine, <0.5% of total catch
HERRING, BLUEBACK				100% Estuarine, <0.5% of total catch
HERRING, LAKE OR CISCO				100% Freshwater, <0.5% of total catch
HERRING, PACIFIC				100% Estuarine, 34.6% of total catch
HERRING, ROUND				100% Marine, <0.5% of total catch
HERRINGS				catch-all category, apportioned according to above catch proportions, <0.5% of total catch
Milkfish				100% Marine. Weighted 30% of group.
Shad				6 main species. 92% Estuarine/8% Freshwater (Alewife if 50% FW). Weighted 10% of group.
<b>Jellyfish</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Lobster</b>	<b>0.044</b>	<b>0</b>	<b>0.956</b>	<b>Apportioned with NOAA landings data.</b>
LOBSTER, AMERICAN				100% Estuarine, 95.0% of total catch
LOBSTER, BANDED SPINY				100% Marine, <0.5% of total catch
LOBSTER, CALIFORNIA SPINY				100% Estuarine, 0.6% of total catch
LOBSTER, CARIBBEAN SPINY				100% Marine, 4.4% of total catch
LOBSTER, SLIPPER				100% Marine, <0.5% of total catch
<b>Mackerel</b>	<b>0.411</b>	<b>0</b>	<b>0.589</b>	

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Mackerel				Apportioned with NOAA landings data. Weighted 90% of group.
				MACKEREL, ATLANTIC 100% Estuarine, 63.4% of total catch
				MACKEREL, CHUB 100% Marine, 13.8% of total catch
				MACKEREL, FRIGATE 100% Marine, <0.5% of total catch
				MACKEREL, KING 100% Marine, 1.7% of total catch
				MACKEREL, KING AND CERO 100% Marine, 11.1% of total catch
				MACKEREL, SPANISH 100% Marine, 10.0% of total catch
Garfish				100% Estuarine. Weighted 2% of group.
Ono/Wahoo				100% Marine. Weighted 4% of group.
Needlefish				56% Marine/44% Estuarine (9 species, 5 marine and 4 estuarine). Weighted 4% of group.
<b>Mullet</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Mussel</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Rockfish/Ocean Perch</b>	<b>0.925</b>	<b>0</b>	<b>0.075</b>	
				Ocean Perch 100% Marine. Weighted 15% of group.
				Bocaccio 100% Estuarine. Weighted 5% of group.
				Menpachi 100% Marine. Weighted 5% of group.
				Orange roughy 100% Marine. Weighted 35% of group.
				Redfish 100% Marine. Weighted 15% of group.
				Rockfish 70 species, approximately half are found in estuaries (in addition to marine habitats) 50% Marine/50% Estuarine. Weighted 5% of group.
<b>Octopus</b>	<b>0.62</b>	<b>0</b>	<b>0.38</b>	<b>8 species commonly consumed in US. 3 are 100% estuarine and 5 are 100% Marine. NOAA database does not speciate.</b>
<b>Oyster</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Perch</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>100% Freshwater</b>
				Perch 100% Freshwater
				Bluegill 100% Freshwater
				Crappie 100% Freshwater
				Sunfish 100% Freshwater
				Bass 100% Freshwater
				Walleye 100% Freshwater
<b>Pike</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>100% Freshwater</b>
				Pike 100% Freshwater
				Muskellunge 100% Freshwater
				Pickrel 100% Freshwater
<b>Pompano</b>	<b>0.661</b>	<b>0.002</b>	<b>0.338</b>	
				Florida (100% Est) is 97% of total catch, African (100% Marine) is 3% of total catch. Weighted 3% of group.
				Pompano

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Akule				100% Marine. Weighted 3% of group.
Blackfish				2 main species: 1 is marine, near-coast (100% Estuarine) and the other is mainly estuarine and partially freshwater. 95% Estuarine/5% FW. Weighted 3% of group.
Bluefish				100% Estuarine. Weighted 3% of group.
Butterfish				100% Estuarine. Weighted 3% of group.
Dolphinfish				100% Marine. Weighted 10% of group.
Jack				100% Marine. Weighted 3% of group.
Mahimahi				100% Marine. Weighted 35% of group.
Papio				100% Marine. Weighted 3% of group.
Parrot fish				100% Marine. Weighted 3% of group.
Sablefish				100% Marine. Weighted 3% of group.
Scad				100% Marine. Weighted 3% of group.
Tilefish				100% Marine. Weighted 3% of group.
Ulua				100% Estuarine. Weighted 3% of group.
Yellowtail				100% Estuarine. Weighted 19% of group.
<b>Porgy</b>	<b>0.981</b>	<b>0</b>	<b>0.019</b>	<b>Apportioned with NOAA landings data.</b>
PORGY, JOLTHEAD				100% Marine, <0.5% of total catch
PORGY, KNOBBED				100% Marine, <0.5% of total catch
PORGY, RED				100% Marine, 1.7% of total catch
SCUP				100% Marine, 43.8% of total catch
SCUPS OR PORGIES				100% Marine, 1.7% of total catch
SHEEPSHEAD				100% Marine, 8.2% of total catch
SNAPPER, BLACK				100% Marine, <0.5% of total catch
SNAPPER, BLACKFIN				100% Marine, <0.5% of total catch
SNAPPER, CUBERA				100% Estuarine, <0.5% of total catch
SNAPPER, DOG				100% Estuarine, <0.5% of total catch
SNAPPER, GRAY				100% Estuarine, 1.3% of total catch
SNAPPER, LANE				100% Marine, <0.5% of total catch
SNAPPER, MUTTON				100% Estuarine, 0.6% of total catch
SNAPPER, QUEEN				100% Marine, <0.5% of total catch
SNAPPER, RED				100% Marine, 14.3% of total catch
SNAPPER, SILK				100% Marine, <0.5% of total catch
SNAPPER, VERMILION				100% Marine, 17.9% of total catch
SNAPPER, YELLOWTAIL				100% Marine, 8.6% of total catch
SNAPPERS				catch-all category for snapper, apportioned according to above catch proportions, 1.2% of total catch
<b>Roe/Caviar</b>	<b>0.085</b>	<b>0.235</b>	<b>0.68</b>	
Roe				10 species commonly used. Salmon, Alewife, Paddlefish, Bowfin, Pike, Freshwater Whitefish, Shad = 100% FW. Mullet = 100% Est. Capelin, Cod = 100% Marine. Total 70%FW/10%Est/20%Marine. Weighted 40% of group.
Caviar				Strugeon eggs. 100% Estuarine. Weighted 60% of group.

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
<b>Salmon</b>	<b>0.96</b>	<b>0.005</b>	<b>0.035</b>	
Salmon				Partially apportioned with NOAA data. Weighted 99% of group.
Kokanee				Landlocked sockeye salmon, 100% Freshwater. Catch is <1% of total salmon catch.
SALMON, CHINOOK				100% Marine. 1.5% of total catch.
SALMON, CHUM				Some populations spend many months in estuaries. 85% Marine/15% Estuarine. 15.3% of total catch
SALMON, COHO				Some populations spend many months in estuaries. 85% Marine/15% Estuarine. 4.4% of total catch
SALMON, PINK				100% Marine. 44.6% of total catch.
SALMON, SOCKEYE				100% Marine. 34.1% of total catch.
Saltwater trout				100% Estuarine. Weighted 1% of group.
<b>Sardine</b>	<b>0.9</b>	<b>0</b>	<b>0.1</b>	
Pacific sardine				90% of catch, 100% marine
Round sardinella				10% of catch, 100% estuarine
<b>Scallop</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Sea Bass</b>	<b>0.925</b>	<b>0.025</b>	<b>0.05</b>	
Sea bass				5 species commonly consumed in US. 100% Marine. Weighted 85% of group.
Grouper				150 species, some marine only, some estuarine and marine. 50% Marine/50% Estuarine. Weighted 10% of group.
Striped Bass				50% Estuarine/50% Freshwater. Weighted 10% of group.
Wreckfish				100% Marine. Weighted 10% of group.
<b>Shark</b>	<b>0.866</b>	<b>0</b>	<b>0.134</b>	
Shark				8 species consumed. 7 marine, 1 estuarine/marine. 87.5% Marine/12.5% Estuarine. Weighted 90% of group.
Dogfish				16 species consumed. 14 marine, 2 estuarine/marine. 87.5% Marine/12.5% Estuarine. Weighted 5% of group.
Grayfish				5 species consumed. 3 marine, 2 estuarine/marine. 60% Marine/40% Estuarine. Weighted 5% of group.
<b>Shrimp</b>	<b>0.176</b>	<b>0</b>	<b>0.824</b>	<b>Apportioned with NOAA landings data.</b>
SHRIMP, BROWN				100% Estuarine, 36.4% of total catch.
SHRIMP, MARINE, OTHER				100% Marine, 2.6% of total catch.
SHRIMP, OCEAN				100% Marine, 13.4% of total catch.
SHRIMP, PACIFIC ROCK				100% Marine, <0.5% of total catch.
SHRIMP, PENAID				100% Estuarine, <0.5% of total catch.
SHRIMP, PINK				100% Estuarine, 3.2% of total catch.
SHRIMP, ROCK				100% Marine, 1.1% of total catch.
SHRIMP, ROYAL RED				100% Marine, <0.5% of total catch.

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
SHRIMP, SEABOB				100% Estuarine, <0.5% of total catch.
SHRIMP, SPOT				100% Estuarine, <0.5% of total catch.
SHRIMP, WHITE				100% Estuarine, 40.2% of total catch.
SHRIMP,PANDALID				100% Estuarine, 0.9% of total catch.
SHRIMP, FW				100% Freshwater, <0.001% of total catch
SHRIMP, DENDROBRANCHIATA				catch-all category, apportioned according to above catch proportions, 0.9% of total catch
<b>Snail</b>	<b>0.45</b>	<b>0.1</b>	<b>0.45</b>	<b>Species found in all environments.</b>
Limpet				80% marine species, 20% freshwater species.
Conch				Half species 100% Marine, half 100% marine but harvested near coast.
Moon snail				Half species 100% Marine, half 100% marine but harvested near coast.
<b>Squid</b>	<b>0.8</b>	<b>0</b>	<b>0.2</b>	
Squid				5 species commonly caught. 4 marine and 1 estuarine.
Cuttlefish				Marine. Not found in US waters.
<b>Sturgeon</b>	<b>0</b>	<b>0.42</b>	<b>0.58</b>	<b>6 species commonly caught. 1 FW/Est, 2 FW, 3 Est</b>
<b>Swordfish</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>100% Marine</b>
Swordfish				100% Marine
Marlin				100% Marine
<b>Tilapia</b>	<b>0</b>	<b>0.5</b>	<b>0.5</b>	<b>Invasive in US; established populations in some freshwater lakes as well as estuaries</b>
<b>Trout</b>	<b>0.106</b>	<b>0.869</b>	<b>0.025</b>	
Trout				100% Freshwater, weighted 70% of group
Chub				100% Freshwater, weighted 5% of group
Cisco				4 species: 1 FW, 1 Marine/Est, 1 Est, 1 FW/Est (37.5% FW, 50% Est, 12.5% marine, weighted 5% of group)
Lake Herring				100% Freshwater, weighted 5% of group
Steelhead				100% Marine, weighted 10% of group
Freshwater Whitefish				100% Freshwater, weighted 5% of group
<b>Whitefish</b>	<b>0.877</b>	<b>0</b>	<b>0.123</b>	<b>Based on apportionment of cod, whiting, haddock, hake, pollock, sole, flounder, and halibut.</b>
<b>Tuna, canned</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>100% Marine</b>
<b>Tuna, fresh</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>100% Marine</b>
<b>Whelk</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Whiting</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>100% Marine</b>
<b>Fish not specified</b>	<b>0.52</b>	<b>0.16</b>	<b>0.32</b>	<b>Apportioned according to overall percentages of all specified species</b>

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Breaded Fish Products	1	0	0	100% Marine (Pollock/Cod)

\*Weighted percentages come from number of reports in 2007-08 NHANES AM/PM file. Unless a fish is not known to be consumed in the US, no fish were assigned a 0 weight as they could be reported consumed in other NHANES releases. We only had access to the 2007-08 AM/PM file.

DRAFT Do not cite or quote

## Appendix B

### Fish-Containing Food Codes

DRAFT Do not cite or quote

Table B-1. Fish-containing food codes in NHANES data

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
14620120	27	0.28	Shrimp dip, cream cheese base		0.262	CANNED	25.0%	0.349	0.062	0.000	0.288	0.349	0.000	0.175	0.175	0.000
26100100	1	0.01	Fish, NS as to type, raw		1.000	RAW	0.0%	1.000	0.520	0.160	0.320	0.000	1.000	0.000	0.500	0.500
26100110	74	0.77	Fish, NS as to type, cooked, NS as to cooking method		0.992	COOKED DRY HEAT	25.0%	1.322	0.687	0.212	0.423	0.000	1.322	0.000	0.661	0.661
26100120	130	1.36	Fish, NS as to type, baked or broiled		0.946	COOKED DRY HEAT	25.0%	1.262	0.656	0.202	0.404	0.000	1.262	0.000	0.631	0.631
26100130	21	0.22	Fish, NS as to type, breaded or battered, baked		0.771	RAW	0.0%	0.771	0.400	0.123	0.247	0.000	0.771	0.000	0.385	0.385
26100140	83	0.87	Fish, NS as to type, floured or breaded, fried		0.832	RAW	0.0%	0.832	0.432	0.133	0.266	0.000	0.832	0.000	0.416	0.416
26100150	58	0.61	Fish, NS as to type, battered, fried		0.752	RAW	0.0%	0.752	0.391	0.120	0.241	0.000	0.752	0.000	0.376	0.376
26100160	27	0.28	Fish, NS as to type, steamed		0.993	RAW	0.0%	0.993	0.516	0.159	0.318	0.000	0.993	0.000	0.497	0.497
26100170	6	0.06	Fish, NS as to type, dried		1.000	SALTED	30.0%	1.429	0.742	0.229	0.457	0.000	1.429	0.000	0.714	0.714
26100190	5	0.05	Fish, NS as to type, smoked		1.000	SMOKED CISO	30.2%	1.433	0.745	0.229	0.459	0.000	1.433	0.000	0.717	0.717
26100210	21	0.22	Fish stick, patty, or fillet, NS as to type, cooked, NS as to cooking method		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299
26100220	34	0.36	Fish stick, patty, or fillet, NS as to type, baked or broiled		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26100230	300	3.14	Fish stick, patty, or fillet, NS as to type, breaded or battered, baked		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299
26100240	143	1.5	Fish stick, patty, or fillet, NS as to type, floured or breaded, fried		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299
26100250	55	0.58	Fish stick, patty, or fillet, NS as to type, battered, fried		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299
26101110	9	0.09	Anchovy, cooked, NS as to cooking method		1.000	CANNED	25.0%	1.333	0.000	0.000	1.333	0.000	1.333	0.667	0.667	0.000
26105120	6	0.06	Carp, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.933	0.000	0.000	0.933	0.000	0.933	0.000
26105140	10	0.1	Carp, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.835	0.000	0.000	0.835	0.000	0.835	0.000
26107110	4	0.04	Catfish, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.000	0.752	0.084	0.000	0.835	0.000	0.418	0.418
26107120	72	0.75	Catfish, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.840	0.093	0.000	0.933	0.000	0.467	0.467
26107130	11	0.12	Catfish, breaded or battered, baked		0.775	RAW	0.0%	0.775	0.000	0.697	0.077	0.000	0.775	0.000	0.387	0.387
26107140	122	1.28	Catfish, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.752	0.084	0.000	0.835	0.000	0.418	0.418
26107150	80	0.84	Catfish, battered, fried		0.752	RAW	0.0%	0.752	0.000	0.677	0.075	0.000	0.752	0.000	0.376	0.376
26107160	11	0.12	Catfish, steamed or poached		0.993	RAW	0.0%	0.993	0.000	0.894	0.099	0.000	0.993	0.000	0.497	0.497
26109110	4	0.04	Cod, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.418	0.418
26109120	58	0.61	Cod, baked or broiled		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.467	0.467
26109130	16	0.17	Cod, breaded or battered, baked		0.775	RAW	0.0%	0.775	0.775	0.000	0.000	0.000	0.775	0.000	0.387	0.387

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26109140	31	0.32	Cod, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.418	0.418
26109150	44	0.46	Cod, battered, fried		0.752	RAW	0.0%	0.752	0.752	0.000	0.000	0.000	0.752	0.000	0.376	0.376
26109160	8	0.08	Cod, steamed or poached		0.993	RAW	0.0%	0.993	0.993	0.000	0.000	0.000	0.993	0.000	0.497	0.497
26109170	3	0.03	Cod, dried, salted		1.000	SALTED	30.0%	1.429	1.429	0.000	0.000	0.000	1.429	0.000	0.714	0.714
26109180	1	0.01	Cod, dried, salted, salt removed in water		0.285	SALTED	30.0%	0.407	0.407	0.000	0.000	0.000	0.407	0.000	0.204	0.204
26111120	17	0.18	Croaker, baked or broiled		0.933	RAW	0.0%	0.933	0.067	0.047	0.820	0.000	0.933	0.000	0.467	0.467
26111130	2	0.02	Croaker, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.055	0.039	0.680	0.000	0.774	0.000	0.387	0.387
26111140	16	0.17	Croaker, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.060	0.042	0.734	0.000	0.835	0.000	0.418	0.418
26111160	4	0.04	Croaker, steamed or poached		0.993	RAW	0.0%	0.993	0.071	0.050	0.873	0.000	0.993	0.000	0.497	0.497
26113110	4	0.04	Eel, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.000	0.933	0.000	0.000	0.933	0.000	0.000	0.933
26113160	1	0.01	Eel, steamed or poached		0.993	RAW	0.0%	0.993	0.000	0.993	0.000	0.000	0.993	0.000	0.000	0.993
26115110	3	0.03	Flounder, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.812	0.000	0.121	0.000	0.933	0.000	0.467	0.467
26115120	60	0.63	Flounder, baked or broiled		0.933	RAW	0.0%	0.933	0.812	0.000	0.121	0.000	0.933	0.000	0.467	0.467
26115130	12	0.13	Flounder, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.674	0.000	0.101	0.000	0.774	0.000	0.387	0.387
26115140	45	0.47	Flounder, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.727	0.000	0.109	0.000	0.835	0.000	0.418	0.418
26115150	32	0.34	Flounder, battered, fried		0.752	RAW	0.0%	0.752	0.654	0.000	0.098	0.000	0.752	0.000	0.376	0.376

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26115160	3	0.03	Flounder, steamed or poached		0.993	RAW	0.0%	0.993	0.864	0.000	0.129	0.000	0.993	0.000	0.497	0.497
26117110	1	0.01	Haddock, cooked, NS as to cooking method		0.932	RAW	0.0%	0.932	0.881	0.047	0.005	0.000	0.932	0.000	0.466	0.466
26117120	27	0.28	Haddock, baked or broiled		0.932	RAW	0.0%	0.932	0.881	0.047	0.005	0.000	0.932	0.000	0.466	0.466
26117130	13	0.14	Haddock, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.731	0.039	0.004	0.000	0.774	0.000	0.387	0.387
26117140	15	0.16	Haddock, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.789	0.042	0.005	0.000	0.835	0.000	0.418	0.418
26117150	8	0.08	Haddock, battered, fried		0.752	RAW	0.0%	0.752	0.710	0.038	0.004	0.000	0.752	0.000	0.376	0.376
26117160	4	0.04	Haddock, steamed or poached		0.993	RAW	0.0%	0.993	0.938	0.050	0.005	0.000	0.993	0.000	0.497	0.497
26119110	4	0.04	Herring, cooked, NS as to cooking method		1.000	PICKLED	14.8%	1.174	0.357	0.012	0.805	0.000	1.174	0.000	1.174	0.000
26119120	13	0.14	Herring, baked or broiled		0.933	RAW	0.0%	0.933	0.284	0.009	0.640	0.000	0.933	0.000	0.933	0.000
26119140	1	0.01	Herring, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.254	0.008	0.573	0.000	0.835	0.000	0.835	0.000
26119160	1	0.01	Herring, pickled, in cream sauce		0.798	PICKLED	14.8%	0.936	0.285	0.009	0.642	0.000	0.936	0.000	0.936	0.000
26119180	8	0.08	Herring, pickled		1.000	PICKLED	14.8%	1.174	0.357	0.012	0.805	0.000	1.174	0.000	1.174	0.000
26119190	4	0.04	Herring, smoked, kippered		1.000	KIPPED	10.3%	1.115	0.339	0.011	0.765	0.000	1.115	0.000	1.115	0.000
26121100	1	0.01	Mackerel, raw		1.000	RAW	0.0%	1.000	0.411	0.000	0.589	0.000	1.000	0.000	0.500	0.500
26121110	1	0.01	Mackerel, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.384	0.000	0.550	0.000	0.933	0.000	0.467	0.467
26121120	7	0.07	Mackerel, baked or broiled		0.933	RAW	0.0%	0.933	0.384	0.000	0.550	0.000	0.933	0.000	0.467	0.467
26121140	1	0.01	Mackerel, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.343	0.000	0.492	0.000	0.835	0.000	0.418	0.418

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26121180	4	0.04	Mackerel, canned		1.000	CANNED	25.0%	1.333	0.548	0.000	0.785	0.000	1.333	0.000	0.667	0.667
26123140	1	0.01	Mullet, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.000	0.835	0.000	0.835	0.835	0.000	0.000
26125120	28	0.29	Ocean perch, baked or broiled		0.933	RAW	0.0%	0.933	0.863	0.000	0.070	0.000	0.933	0.000	0.000	0.933
26125140	15	0.16	Ocean perch, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.773	0.000	0.063	0.000	0.835	0.000	0.000	0.835
26125150	6	0.06	Ocean perch, battered, fried		0.752	RAW	0.0%	0.752	0.695	0.000	0.056	0.000	0.752	0.000	0.000	0.752
26125160	2	0.02	Ocean perch, steamed or poached		0.993	RAW	0.0%	0.993	0.919	0.000	0.075	0.000	0.993	0.000	0.000	0.993
26127110	3	0.03	Perch, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.000	0.835	0.000	0.000	0.835	0.000	0.000	0.835
26127120	38	0.4	Perch, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.933	0.000	0.000	0.933	0.000	0.000	0.933
26127130	10	0.1	Perch, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.000	0.774	0.000	0.000	0.774	0.000	0.000	0.774
26127140	57	0.6	Perch, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.835	0.000	0.000	0.835	0.000	0.000	0.835
26127150	31	0.32	Perch, battered, fried		0.752	RAW	0.0%	0.752	0.000	0.752	0.000	0.000	0.752	0.000	0.000	0.752
26127160	5	0.05	Perch, steamed or poached		0.993	RAW	0.0%	0.993	0.000	0.993	0.000	0.000	0.993	0.000	0.000	0.993
26129120	1	0.01	Pike, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.933	0.000	0.000	0.933	0.000	0.000	0.933
26129140	2	0.02	Pike, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.835	0.000	0.000	0.835	0.000	0.000	0.835
26131100	1	0.01	Pompano, raw		1.000	RAW	0.0%	1.000	0.661	0.002	0.338	0.000	1.000	0.000	0.000	1.000
26131110	1	0.01	Pompano, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.617	0.001	0.315	0.000	0.933	0.000	0.000	0.933
26131120	28	0.29	Pompano, baked or broiled		0.933	RAW	0.0%	0.933	0.617	0.001	0.315	0.000	0.933	0.000	0.000	0.933

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26131140	6	0.06	Pompano, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.552	0.001	0.282	0.000	0.835	0.000	0.000	0.835
26131150	1	0.01	Pompano, battered, fried		0.752	RAW	0.0%	0.752	0.497	0.001	0.254	0.000	0.752	0.000	0.000	0.752
26131160	11	0.12	Pompano, steamed or poached		0.993	RAW	0.0%	0.993	0.656	0.001	0.336	0.000	0.993	0.000	0.000	0.993
26133110	1	0.01	Porgy, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.819	0.000	0.016	0.000	0.835	0.000	0.000	0.835
26133120	13	0.14	Porgy, baked or broiled		0.933	RAW	0.0%	0.933	0.916	0.000	0.018	0.000	0.933	0.000	0.000	0.933
26133140	6	0.06	Porgy, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.819	0.000	0.016	0.000	0.835	0.000	0.000	0.835
26133150	3	0.03	Porgy, battered, fried		0.637	RAW	0.0%	0.637	0.625	0.000	0.012	0.000	0.637	0.000	0.000	0.637
26133160	5	0.05	Porgy, steamed or poached		0.993	RAW	0.0%	0.993	0.975	0.000	0.019	0.000	0.993	0.000	0.000	0.993
26137100	1	0.01	Salmon, raw		1.000	RAW	0.0%	1.000	0.960	0.005	0.035	0.000	1.000	0.000	0.000	1.000
26137110	47	0.49	Salmon, cooked, NS as to cooking method		0.993	COOKED DRY HEAT	25.0%	1.323	1.270	0.007	0.046	0.000	1.323	0.000	0.000	1.323
26137120	435	4.55	Salmon, baked or broiled		0.933	RAW	0.0%	0.933	0.896	0.005	0.033	0.000	0.933	0.000	0.000	0.933
26137140	24	0.25	Salmon, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.802	0.004	0.029	0.000	0.835	0.000	0.000	0.835
26137150	15	0.16	Salmon, battered, fried		0.752	RAW	0.0%	0.752	0.722	0.004	0.026	0.000	0.752	0.000	0.000	0.752
26137160	31	0.32	Salmon, steamed or poached		0.993	RAW	0.0%	0.993	0.954	0.005	0.035	0.000	0.993	0.000	0.000	0.993
26137180	32	0.34	Salmon, canned		1.000	CANNED	25.0%	1.333	1.280	0.007	0.047	0.000	1.333	0.000	0.000	1.333
26137190	53	0.55	Salmon, smoked		1.000	SMOKED SALMON	5.0%	1.053	1.011	0.005	0.037	0.000	1.053	0.000	0.000	1.053
26139110	18	0.19	Sardines, cooked		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000
26139170	1	0.01	Sardines, dried		1.000	DRIED	80.0%	5.003	4.502	0.000	0.500	0.000	5.003	0.000	5.003	0.000
26139180	36	0.38	Sardines, canned in oil		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26139190	13	0.14	Sardines, skinless, boneless, packed in water		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000
26141110	1	0.01	Sea bass, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.863	0.023	0.047	0.000	0.933	0.000	0.000	0.933
26141120	24	0.25	Sea bass, baked or broiled		0.933	RAW	0.0%	0.933	0.863	0.023	0.047	0.000	0.933	0.000	0.000	0.933
26141130	1	0.01	Sea bass, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.716	0.019	0.039	0.000	0.774	0.000	0.000	0.774
26141140	8	0.08	Sea bass, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.773	0.021	0.042	0.000	0.835	0.000	0.000	0.835
26141160	8	0.08	Sea bass, steamed or poached		0.993	RAW	0.0%	0.993	0.919	0.025	0.050	0.000	0.993	0.000	0.000	0.993
26143120	1	0.01	Shark, baked or broiled		0.933	RAW	0.0%	0.933	0.808	0.000	0.125	0.000	0.933	0.000	0.000	0.933
26147110	2	0.02	Sturgeon, cooked, NS as to cooking method		0.992	RAW	0.0%	0.992	0.000	0.417	0.575	0.000	0.992	0.000	0.000	0.992
26149120	16	0.17	Swordfish, baked or broiled		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.000	0.933
26149140	3	0.03	Swordfish, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.000	0.835
26149160	1	0.01	Swordfish, steamed or poached		0.993	RAW	0.0%	0.993	0.993	0.000	0.000	0.000	0.993	0.000	0.000	0.993
26151110	1	0.01	Trout, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.099	0.811	0.023	0.000	0.933	0.000	0.000	0.933
26151120	39	0.41	Trout, baked or broiled		0.933	RAW	0.0%	0.933	0.099	0.811	0.023	0.000	0.933	0.000	0.000	0.933
26151130	4	0.04	Trout, breaded or battered, baked		0.835	RAW	0.0%	0.835	0.089	0.725	0.021	0.000	0.835	0.000	0.000	0.835
26151140	29	0.3	Trout, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.089	0.726	0.021	0.000	0.835	0.000	0.000	0.835

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26151150	24	0.25	Trout, battered, fried		0.752	RAW	0.0%	0.752	0.080	0.653	0.019	0.000	0.752	0.000	0.000	0.752
26151190	1	0.01	Trout, smoked		0.993	RAW	0.0%	0.993	0.106	0.862	0.025	0.000	0.993	0.000	0.000	0.993
26153100	7	0.07	Tuna, fresh, raw		1.000	RAW	0.0%	1.000	1.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000
26153110	6	0.06	Tuna, fresh, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.000	0.933
26153120	37	0.39	Tuna, fresh, baked or broiled		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.000	0.933
26153140	4	0.04	Tuna, fresh, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.000	0.835
26153160	5	0.05	Tuna, fresh, steamed or poached		0.993	RAW	0.0%	0.993	0.993	0.000	0.000	0.000	0.993	0.000	0.000	0.993
26155110	369	3.86	Tuna, canned, NS as to oil or water pack		1.000	CANNED	25.0%	1.333	1.333	0.000	0.000	0.000	1.333	0.000	0.000	1.333
26155190	1	0.01	Tuna, canned, water pack		1.000	CANNED	25.0%	1.333	1.333	0.000	0.000	0.000	1.333	0.000	0.000	1.333
26157120	28	0.29	Whiting, baked or broiled		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.933	0.000
26157130	3	0.03	Whiting, breaded or battered, baked		0.775	RAW	0.0%	0.775	0.775	0.000	0.000	0.000	0.775	0.000	0.775	0.000
26157140	64	0.67	Whiting, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.835	0.000
26157150	24	0.25	Whiting, battered, fried		0.752	RAW	0.0%	0.752	0.752	0.000	0.000	0.000	0.752	0.000	0.752	0.000
26158000	17	0.18	Tilapia, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.000	0.467	0.467	0.000	0.933	0.933	0.000	0.000
26158010	187	1.96	Tilapia, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.467	0.467	0.000	0.933	0.933	0.000	0.000
26158020	20	0.21	Tilapia, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.000	0.387	0.387	0.000	0.774	0.774	0.000	0.000
26158030	63	0.66	Tilapia, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.418	0.418	0.000	0.835	0.835	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26158040	21	0.22	Tilapia, battered, fried		0.752	RAW	0.0%	0.752	0.000	0.376	0.376	0.000	0.752	0.752	0.000	0.000
26205110	3	0.03	Octopus, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.518	0.000	0.317	0.835	0.000	0.000	0.418	0.418
26205160	1	0.01	Octopus, steamed		0.992	RAW	0.0%	0.992	0.615	0.000	0.377	0.992	0.000	0.000	0.496	0.496
26207110	4	0.04	Roe, shad, cooked		0.913	RAW	0.0%	0.913	0.078	0.215	0.621	0.000	0.913	0.000	0.000	0.000
26211100	4	0.04	Roe, sturgeon		1.000	RAW	0.0%	1.000	0.085	0.235	0.680	0.000	1.000	0.000	0.000	0.000
26213120	13	0.14	Squid, baked, broiled		0.963	RAW	0.0%	0.963	0.771	0.000	0.193	0.963	0.000	0.000	0.482	0.482
26213140	41	0.43	Squid, breaded, fried		0.835	RAW	0.0%	0.835	0.668	0.000	0.167	0.835	0.000	0.000	0.418	0.418
26213160	1	0.01	Squid, steamed or boiled		0.992	RAW	0.0%	0.992	0.793	0.000	0.198	0.992	0.000	0.000	0.496	0.496
26213170	5	0.05	Squid, dried		0.997	RAW	0.0%	0.997	0.798	0.000	0.199	0.997	0.000	0.000	0.499	0.499
26213190	1	0.01	Squid, canned		0.994	RAW	0.0%	0.994	0.795	0.000	0.199	0.994	0.000	0.000	0.497	0.497
26303100	3	0.03	Clams, raw		1.000	RAW	0.0%	1.000	0.840	0.000	0.160	1.000	0.000	1.000	0.000	0.000
26303110	6	0.06	Clams, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.702	0.000	0.134	0.835	0.000	0.835	0.000	0.000
26303120	8	0.08	Clams, baked or broiled		0.935	RAW	0.0%	0.935	0.786	0.000	0.150	0.935	0.000	0.935	0.000	0.000
26303140	11	0.12	Clams, floured or breaded, fried		0.837	RAW	0.0%	0.837	0.703	0.000	0.134	0.837	0.000	0.837	0.000	0.000
26303150	6	0.06	Clams, battered, fried		0.754	RAW	0.0%	0.754	0.633	0.000	0.121	0.754	0.000	0.754	0.000	0.000
26303160	19	0.2	Clams, steamed or boiled		0.992	RAW	0.0%	0.992	0.833	0.000	0.159	0.992	0.000	0.992	0.000	0.000
26303180	3	0.03	Clams, canned		1.000	RAW	0.0%	1.000	0.840	0.000	0.160	1.000	0.000	1.000	0.000	0.000
26305110	54	0.57	Crab, cooked, NS as to cooking method		0.992	COOKED MOIST HEAT	25.0%	1.322	0.361	0.000	0.961	0.000	1.322	0.000	1.322	0.000
26305120	18	0.19	Crab, baked or broiled		0.935	COOKED MOIST HEAT	25.0%	1.247	0.340	0.000	0.907	0.000	1.247	0.000	1.247	0.000
26305160	105	1.1	Crab, hard shell, steamed		0.993	COOKED MOIST HEAT	25.0%	1.325	0.362	0.000	0.963	0.000	1.325	0.000	1.325	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26307140	8	0.08	Crab, soft shell, floured or breaded, fried		0.680	COOKED MOIST HEAT	25.0%	0.906	0.247	0.000	0.659	0.000	0.906	0.000	0.906	0.000
26309140	4	0.04	Crayfish, floured or breaded, fried		0.755	RAW	0.0%	0.755	0.000	0.755	0.000	0.755	0.000	0.000	0.755	0.000
26309160	16	0.17	Crayfish, boiled or steamed		0.992	COOKED MOIST HEAT	25.0%	1.322	0.000	1.322	0.000	1.322	0.000	0.000	1.322	0.000
26311110	9	0.09	Lobster, cooked, NS as to cooking method		0.992	COOKED MOIST HEAT	25.0%	1.322	0.058	0.000	1.264	1.322	0.000	0.000	1.322	0.000
26311120	12	0.13	Lobster, baked or broiled		0.964	COOKED MOIST HEAT	25.0%	1.285	0.057	0.000	1.228	1.285	0.000	0.000	1.285	0.000
26311160	13	0.14	Lobster, steamed or boiled		0.992	COOKED MOIST HEAT	25.0%	1.322	0.058	0.000	1.264	1.322	0.000	0.000	1.322	0.000
26313110	6	0.06	Mussels, cooked, NS as to cooking method		0.935	RAW	0.0%	0.935	0.000	0.000	0.935	0.935	0.000	0.935	0.000	0.000
26313160	20	0.21	Mussels, steamed or poached		0.992	RAW	0.0%	0.992	0.000	0.000	0.992	0.992	0.000	0.992	0.000	0.000
26315100	17	0.18	Oysters, raw		1.000	RAW	0.0%	1.000	0.000	0.000	1.000	0.000	1.000	1.000	0.000	0.000
26315110	2	0.02	Oysters, cooked, NS as to cooking method		0.855	RAW	0.0%	0.855	0.000	0.000	0.855	0.000	0.855	0.855	0.000	0.000
26315120	17	0.18	Oysters, baked or broiled		0.935	RAW	0.0%	0.935	0.000	0.000	0.935	0.000	0.935	0.935	0.000	0.000
26315130	5	0.05	Oysters, steamed		0.992	RAW	0.0%	0.992	0.000	0.000	0.992	0.000	0.992	0.992	0.000	0.000
26315140	21	0.22	Oysters, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.000	0.835	0.000	0.835	0.835	0.000	0.000
26315150	23	0.24	Oysters, battered, fried		0.754	RAW	0.0%	0.754	0.000	0.000	0.754	0.000	0.754	0.754	0.000	0.000
26315180	5	0.05	Oysters, canned		1.000	CANNED	25.0%	1.333	0.000	0.000	1.333	0.000	1.333	1.333	0.000	0.000
26315190	3	0.03	Oysters, smoked		0.993	RAW	0.0%	0.993	0.000	0.000	0.993	0.000	0.993	0.993	0.000	0.000
26317110	11	0.12	Scallops, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.000	0.000	0.835	0.835	0.000	0.835	0.000	0.000
26317120	23	0.24	Scallops, baked or broiled		0.963	RAW	0.0%	0.963	0.000	0.000	0.963	0.963	0.000	0.963	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26317130	2	0.02	Scallops, steamed or boiled		0.993	RAW	0.0%	0.993	0.000	0.000	0.993	0.993	0.000	0.993	0.000	0.000
26317140	12	0.13	Scallops, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.000	0.835	0.835	0.000	0.835	0.000	0.000
26317150	6	0.06	Scallops, battered, fried		0.754	RAW	0.0%	0.754	0.000	0.000	0.754	0.754	0.000	0.754	0.000	0.000
26319110	251	2.63	Shrimp, cooked, NS as to cooking method		0.993	RAW	0.0%	0.993	0.175	0.000	0.819	0.993	0.000	0.497	0.497	0.000
26319120	325	3.4	Shrimp, baked or broiled		0.963	RAW	0.0%	0.963	0.170	0.000	0.794	0.963	0.000	0.482	0.482	0.000
26319130	188	1.97	Shrimp, steamed or boiled		0.993	RAW	0.0%	0.993	0.175	0.000	0.819	0.993	0.000	0.497	0.497	0.000
26319140	468	4.9	Shrimp, floured, breaded, or battered, fried		0.636	RAW	0.0%	0.636	0.112	0.000	0.524	0.636	0.000	0.318	0.318	0.000
26319170	8	0.08	Shrimp, dried		1.000	CANNED	25.0%	1.333	0.235	0.000	1.099	1.333	0.000	0.667	0.667	0.000
26319180	2	0.02	Shrimp, canned		1.000	CANNED	25.0%	1.333	0.235	0.000	1.099	1.333	0.000	0.667	0.667	0.000
26321110	3	0.03	Snails, cooked, NS as to cooking method		0.970	RAW	0.0%	0.970	0.436	0.097	0.436	0.000	0.970	0.970	0.000	0.000
27116400	1	0.01	Steak tartare (raw ground beef and egg)		0.016	CANNED	25.0%	0.021	0.000	0.000	0.021	0.000	0.021	0.011	0.011	0.000
27150010	2	0.02	Fish with cream or white sauce, not tuna or lobster (mixture)		0.351	CANNED	25.0%	0.468	0.468	0.000	0.000	0.000	0.468	0.000	0.234	0.234
27150020	3	0.03	Crab, deviled		0.471	COOKED MOIST HEAT	25.0%	0.627	0.171	0.000	0.456	0.000	0.627	0.000	0.627	0.000
27150030	1	0.01	Crab imperial		0.574	COOKED MOIST HEAT	25.0%	0.765	0.209	0.000	0.556	0.000	0.765	0.000	0.765	0.000
27150060	1	0.01	Lobster newburg		0.366	COOKED MOIST HEAT	25.0%	0.488	0.021	0.000	0.466	0.488	0.000	0.000	0.488	0.000
27150070	2	0.02	Lobster with butter sauce (mixture)		0.773	COOKED MOIST HEAT	25.0%	1.031	0.045	0.000	0.985	1.031	0.000	0.000	1.031	0.000
27150100	4	0.04	Shrimp curry		0.364	CANNED	25.0%	0.485	0.085	0.000	0.400	0.485	0.000	0.242	0.242	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27150110	75	0.79	Shrimp cocktail (shrimp with cocktail sauce)		0.654	COOKED MOIST HEAT	25.0%	0.872	0.153	0.000	0.719	0.872	0.000	0.436	0.436	0.000
27150120	1	0.01	Tuna with cream or white sauce (mixture)		0.342	CANNED	25.0%	0.456	0.456	0.000	0.000	0.000	0.456	0.000	0.000	0.456
27150130	11	0.12	Seafood newburg	Crustaceans, crab, blue, cooked, moist heat	0.122	COOKED MOIST HEAT	25.0%	0.163	0.044	0.000	0.118	0.000	0.163	0.000	0.163	0.000
27150130			Seafood newburg	Crustaceans, lobster, northern, cooked, moist heat	0.122	COOKED MOIST HEAT	25.0%	0.163	0.007	0.000	0.155	0.163	0.000	0.000	0.163	0.000
27150130			Seafood newburg	Crustaceans, shrimp, mixed species, cooked, moist heat	0.122	COOKED MOIST HEAT	25.0%	0.163	0.029	0.000	0.134	0.163	0.000	0.081	0.081	0.000
27150140	3	0.03	Clam sauce, white		0.653	CANNED	25.0%	0.871	0.732	0.000	0.139	0.871	0.000	0.871	0.000	0.000
27150160	3	0.03	Shrimp with lobster sauce (mixture)		0.472	CANNED	25.0%	0.629	0.111	0.000	0.519	0.629	0.000	0.315	0.315	0.000
27150170	8	0.08	Sweet and sour shrimp		0.339	RAW	0.0%	0.339	0.060	0.000	0.279	0.339	0.000	0.169	0.169	0.000
27150200	10	0.1	Oyster sauce (white sauce-based)		0.494	CANNED	25.0%	0.659	0.000	0.000	0.659	0.000	0.659	0.659	0.000	0.000
27150210	47	0.49	Fish sauce (bagoong)		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27150230	42	0.44	Shrimp scampi		0.819	CANNED	25.0%	1.091	0.192	0.000	0.899	1.091	0.000	0.546	0.546	0.000
27150310	13	0.14	Fish with tomato-based sauce (mixture)		0.653	RAW	0.0%	0.653	0.568	0.000	0.085	0.000	0.653	0.000	0.327	0.327
27150320	18	0.19	Fish curry		0.371	RAW	0.0%	0.371	0.371	0.000	0.000	0.000	0.371	0.000	0.186	0.186
27150330	1	0.01	Mussels with tomato-based sauce (mixture)		0.800	RAW	0.0%	0.800	0.000	0.000	0.800	0.800	0.000	0.800	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27150350	3	0.03	Sardines with tomato-based sauce (mixture)		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000
27150370	2	0.02	Sardines with mustard sauce (mixture)		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000
27150410	3	0.03	Shrimp teriyaki (shrimp with soy-based sauce) (mixture)		0.880	COOKED MOIST HEAT	25.0%	1.173	0.207	0.000	0.967	1.173	0.000	0.587	0.587	0.000
27150510	1	0.01	Scallops with cheese sauce (mixture)		0.497	STEAMED	21.0%	0.629	0.000	0.000	0.629	0.629	0.000	0.629	0.000	0.000
27151030	60	0.63	Marinated fish (Ceviche)		0.534	RAW	0.0%	0.534	0.494	0.013	0.027	0.000	0.534	0.000	0.000	0.534
27151040	2	0.02	Crabs in tomato-based sauce, Puerto Rican style (mixture) (Salmorejo de jueyes)		0.616	COOKED MOIST HEAT	25.0%	0.822	0.224	0.000	0.598	0.000	0.822	0.000	0.822	0.000
27151050	5	0.05	Shrimp in garlic sauce, Puerto Rican style (mixture) (Camarones al ajillo)		0.654	RAW	0.0%	0.654	0.115	0.000	0.539	0.654	0.000	0.327	0.327	0.000
27151070	2	0.02	Stewed codfish, Puerto Rican style, no potatoes (potatoes reported separately)		0.210	SALTED	30.0%	0.300	0.300	0.000	0.000	0.000	0.300	0.000	0.150	0.150
27250020	1	0.01	Clams, stuffed		0.530	RAW	0.0%	0.530	0.445	0.000	0.085	0.530	0.000	0.530	0.000	0.000
27250030	8	0.08	Codfish ball or cake		0.442	CANNED	25.0%	0.589	0.589	0.000	0.000	0.000	0.589	0.000	0.295	0.295
27250040	78	0.82	Crab cake		0.686	COOKED MOIST HEAT	25.0%	0.915	0.250	0.000	0.665	0.000	0.915	0.000	0.915	0.000
27250050	6	0.06	Fish cake or patty, NS as to fish		0.442	CANNED	25.0%	0.589	0.589	0.000	0.000	0.000	0.589	0.000	0.295	0.295

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27250070	103	1.08	Salmon cake or patty		0.474	CANNED	25.0%	0.631	0.606	0.003	0.022	0.000	0.631	0.000	0.000	0.631
27250110	1	0.01	Scallops and noodles with cheese sauce (mixture)		0.373	STEAMED	21.0%	0.472	0.000	0.000	0.472	0.472	0.000	0.472	0.000	0.000
27250120	18	0.19	Shrimp and noodles, no sauce (mixture)		0.339	CANNED	25.0%	0.452	0.080	0.000	0.373	0.452	0.000	0.226	0.226	0.000
27250122	1	0.01	Shrimp and noodles with gravy (mixture)		0.195	CANNED	25.0%	0.260	0.046	0.000	0.214	0.260	0.000	0.130	0.130	0.000
27250124	1	0.01	Shrimp and noodles with (mushroom) soup (mixture)		0.215	CANNED	25.0%	0.287	0.050	0.000	0.236	0.287	0.000	0.143	0.143	0.000
27250126	13	0.14	Shrimp and noodles with cream or white sauce (mixture)		0.198	CANNED	25.0%	0.264	0.047	0.000	0.218	0.264	0.000	0.132	0.132	0.000
27250128	4	0.04	Shrimp and noodles with soy-based sauce (mixture)		0.221	CANNED	25.0%	0.294	0.052	0.000	0.242	0.294	0.000	0.147	0.147	0.000
27250130	50	0.52	Shrimp and noodles with cheese sauce (mixture)		0.373	COOKED MOIST HEAT	25.0%	0.498	0.088	0.000	0.410	0.498	0.000	0.249	0.249	0.000
27250132	19	0.2	Shrimp and noodles with tomato sauce (mixture)		0.246	CANNED	25.0%	0.328	0.058	0.000	0.270	0.328	0.000	0.164	0.164	0.000
27250160	18	0.19	Tuna cake or patty		0.489	CANNED	25.0%	0.652	0.652	0.000	0.000	0.000	0.652	0.000	0.000	0.652
27250210	2	0.02	Clam cake or patty		0.509	CANNED	25.0%	0.679	0.570	0.000	0.109	0.679	0.000	0.679	0.000	0.000
27250220	1	0.01	Oyster fritter		0.510	RAW	0.0%	0.510	0.000	0.000	0.510	0.000	0.510	0.510	0.000	0.000
27250250	4	0.04	Flounder with crab stuffing	FISH, FLATFISH (FLOUNDER AND SOLE SPECIES), RAW	0.634	RAW	0.0%	0.634	0.552	0.000	0.082	0.000	0.634	0.000	0.317	0.317

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27250250			Flounder with crab stuffing	CRUSTACEANS, CRAB, BLUE, COOKED, MOIST HEAT	0.159	COOKED MOIST HEAT	25.0%	0.211	0.058	0.000	0.154	0.000	0.211	0.000	0.211	0.000
27250260	1	0.01	Lobster with bread stuffing, baked		0.686	COOKED MOIST HEAT	25.0%	0.914	0.040	0.000	0.874	0.914	0.000	0.000	0.914	0.000
27250400	8	0.08	Shrimp cake or patty		0.475	CANNED	25.0%	0.633	0.111	0.000	0.522	0.633	0.000	0.317	0.317	0.000
27250410	8	0.08	Shrimp with crab stuffing	CRUSTACEANS, CRAB, BLUE, COOKED, MOIST HEAT	0.410	COOKED MOIST HEAT	25.0%	0.546	0.149	0.000	0.397	0.000	0.546	0.000	0.546	0.000
27250410			Shrimp with crab stuffing	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.376	RAW	0.0%	0.376	0.066	0.000	0.310	0.376	0.000	0.188	0.188	0.000
27250450	1	0.01	Shrimp toast, fried		0.331	RAW	0.0%	0.331	0.058	0.000	0.273	0.331	0.000	0.166	0.166	0.000
27250510	1	0.01	Fish cake (Kamaboko) tempura		0.603	RAW	0.0%	0.603	0.603	0.000	0.000	0.000	0.603	0.000	0.301	0.301
27250520	59	0.62	Seafood restructured		1.000	RESTRUCTURED	25.0%	1.333	0.364	0.000	0.969	0.000	1.333	0.000	1.333	0.000
27250610	65	0.68	Tuna noodle casserole with cream or white sauce		0.281	CANNED	25.0%	0.375	0.375	0.000	0.000	0.000	0.375	0.000	0.000	0.375
27250630	2	0.02	Tuna noodle casserole with (mushroom) soup		0.278	CANNED	25.0%	0.371	0.371	0.000	0.000	0.000	0.371	0.000	0.000	0.371
27250810	4	0.04	Fish and rice with tomato-based sauce		0.195	CANNED	25.0%	0.261	0.261	0.000	0.000	0.000	0.261	0.000	0.000	0.261
27250820	1	0.01	Fish and rice with cream sauce		0.196	CANNED	25.0%	0.261	0.261	0.000	0.000	0.000	0.261	0.000	0.000	0.261
27250830	1	0.01	Fish and rice with (mushroom) soup		0.195	CANNED	25.0%	0.261	0.261	0.000	0.000	0.000	0.261	0.000	0.000	0.261

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27250900	5	0.05	Fish and noodles with (mushroom) soup		0.218	CANNED	25.0%	0.291	0.291	0.000	0.000	0.000	0.291	0.000	0.000	0.291
27250950	5	0.05	Shellfish mixture and noodles, tomato-based sauce (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.076	CANNED	25.0%	0.102	0.018	0.000	0.084	0.102	0.000	0.051	0.051	0.000
27250950			Shellfish mixture and noodles, tomato-based sauce (mixture)	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.076	RAW	0.0%	0.076	0.064	0.000	0.012	0.076	0.000	0.076	0.000	0.000
27250950			Shellfish mixture and noodles, tomato-based sauce (mixture)	MOLLUSKS, SCALLOP, MIXED SPECIES, RAW	0.076	RAW	0.0%	0.076	0.000	0.000	0.076	0.076	0.000	0.076	0.000	0.000
27350020	2	0.02	Paella with seafood	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.021	RAW	0.0%	0.021	0.004	0.000	0.017	0.021	0.000	0.011	0.011	0.000
27350020			Paella with seafood	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.102	RAW	0.0%	0.102	0.085	0.000	0.016	0.102	0.000	0.102	0.000	0.000
27350030	4	0.04	Seafood stew with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy), tomato-base sauce	FISH, PERCH, MIXED SPECIES, RAW	0.081	RAW	0.0%	0.081	0.000	0.081	0.000	0.000	0.081	0.000	0.000	0.081
27350030			Seafood stew with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy), tomato-base sauce	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.081	COOKED MOIST HEAT	25.0%	0.108	0.019	0.000	0.089	0.108	0.000	0.054	0.054	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27350030			Seafood stew with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy), tomato-base sauce	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.163	RAW	0.0%	0.163	0.137	0.000	0.026	0.163	0.000	0.163	0.000	0.000
27350050	17	0.18	Shrimp chow mein or chop suey with noodles		0.191	CANNED	25.0%	0.254	0.045	0.000	0.210	0.254	0.000	0.127	0.127	0.000
27350060	32	0.34	Shrimp creole, with rice		0.369	CANNED	25.0%	0.492	0.087	0.000	0.406	0.492	0.000	0.246	0.246	0.000
27350080	16	0.17	Tuna noodle casserole with vegetables, cream or white sauce		0.161	CANNED	25.0%	0.215	0.215	0.000	0.000	0.000	0.215	0.000	0.000	0.215
27350110	18	0.19	Bouillabaisse	FISH, HALIBUT, ATLANTIC AND PACIFIC, RAW	0.103	RAW	0.0%	0.103	0.081	0.000	0.023	0.000	0.103	0.000	0.000	0.103
27350110			Bouillabaisse	FISH, POMPANO, FLORIDA, RAW	0.103	RAW	0.0%	0.103	0.068	0.000	0.035	0.000	0.103	0.000	0.000	0.103
27350110			Bouillabaisse	FISH, SNAPPER, MIXED SPECIES, RAW	0.103	RAW	0.0%	0.103	0.101	0.000	0.002	0.000	0.103	0.000	0.000	0.103
27350110			Bouillabaisse	CRUSTACEANS, LOBSTER, NORTHERN, RAW	0.052	RAW	0.0%	0.052	0.002	0.000	0.049	0.052	0.000	0.000	0.052	0.000
27350110			Bouillabaisse	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.052	RAW	0.0%	0.052	0.009	0.000	0.043	0.052	0.000	0.026	0.026	0.000
27350110			Bouillabaisse	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.052	RAW	0.0%	0.052	0.043	0.000	0.008	0.052	0.000	0.052	0.000	0.000
27350110			Bouillabaisse	MOLLUSKS, MUSSEL, BLUE, RAW	0.052	RAW	0.0%	0.052	0.000	0.000	0.052	0.052	0.000	0.052	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27350110			Bouillabaisse	MOLLUSKS, SCALLOP, MIXED SPECIES, RAW	0.103	RAW	0.0%	0.103	0.000	0.000	0.103	0.103	0.000	0.103	0.000	0.000
27350310	5	0.05	Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	FISH, PERCH, MIXED SPECIES, RAW	0.083	RAW	0.0%	0.083	0.000	0.083	0.000	0.000	0.083	0.000	0.000	0.083
27350310			Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.083	COOKED MOIST HEAT	25.0%	0.110	0.019	0.000	0.091	0.110	0.000	0.055	0.055	0.000
27350310			Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.166	RAW	0.0%	0.166	0.139	0.000	0.026	0.166	0.000	0.166	0.000	0.000
27350410	3	0.03	Tuna noodle casserole with vegetables and (mushroom) soup		0.238	CANNED	25.0%	0.317	0.317	0.000	0.000	0.000	0.317	0.000	0.000	0.317
27360080	5	0.05	Chow mein or chop suey, NS as to type of meat, with noodles		0.057	CANNED	25.0%	0.076	0.013	0.000	0.062	0.076	0.000	0.038	0.038	0.000
27360090	9	0.09	Paella, NFS	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.025	RAW	0.0%	0.025	0.004	0.000	0.021	0.025	0.000	0.013	0.013	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27360090			Paella, NFS	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.105	RAW	0.0%	0.105	0.088	0.000	0.017	0.105	0.000	0.105	0.000	0.000
27363000	55	0.58	Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	CRUSTACEANS, CRAB, BLUE, COOKED, MOIST HEAT	0.017	COOKED MOIST HEAT	25.0%	0.023	0.006	0.000	0.017	0.000	0.023	0.000	0.023	0.000
27363000			Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.017	RAW	0.0%	0.017	0.003	0.000	0.014	0.017	0.000	0.008	0.008	0.000
27363000			Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	MOLLUSKS, OYSTER, EASTERN, WILD, RAW	0.048	RAW	0.0%	0.048	0.000	0.000	0.048	0.000	0.048	0.048	0.000	0.000
27420200	1	0.01	Pork hash, Hawaiian style-ground pork, vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce		0.063	RAW	0.0%	0.063	0.011	0.000	0.052	0.063	0.000	0.031	0.031	0.000
27450010	20	0.21	Crab salad		0.642	COOKED MOIST HEAT	25.0%	0.856	0.234	0.000	0.622	0.000	0.856	0.000	0.856	0.000
27450020	4	0.04	Lobster salad		0.204	COOKED MOIST HEAT	25.0%	0.272	0.012	0.000	0.260	0.272	0.000	0.000	0.272	0.000
27450030	15	0.16	Salmon salad		0.526	CANNED	25.0%	0.701	0.673	0.004	0.025	0.000	0.701	0.000	0.000	0.701
27450040	6	0.06	Shrimp chow mein or chop suey, no noodles		0.214	CANNED	25.0%	0.285	0.050	0.000	0.235	0.285	0.000	0.142	0.142	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450060	742	7.77	Tuna salad		0.546	CANNED	25.0%	0.728	0.728	0.000	0.000	0.000	0.728	0.000	0.000	0.728
27450070	16	0.17	Shrimp salad		0.620	CANNED	25.0%	0.827	0.146	0.000	0.681	0.827	0.000	0.413	0.413	0.000
27450080	38	0.4	Seafood salad	CRUSTACEANS, CRAB, BLUE, CANNED	0.200	CANNED	25.0%	0.266	0.073	0.000	0.194	0.000	0.266	0.000	0.266	0.000
27450080			Seafood salad	CRUSTACEANS, LOBSTER, NORTHERN, COOKED, MOIST HEAT	0.200	COOKED MOIST HEAT	25.0%	0.266	0.012	0.000	0.255	0.266	0.000	0.000	0.266	0.000
27450080			Seafood salad	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.200	CANNED	25.0%	0.266	0.047	0.000	0.219	0.266	0.000	0.133	0.133	0.000
27450090	17	0.18	Tuna salad with cheese		0.466	CANNED	25.0%	0.621	0.621	0.000	0.000	0.000	0.621	0.000	0.000	0.621
27450100	123	1.29	Tuna salad with egg		0.473	CANNED	25.0%	0.630	0.630	0.000	0.000	0.000	0.630	0.000	0.000	0.630
27450120	2	0.02	Shrimp garden salad (shrimp, lettuce, eggs, vegetables excluding tomato and carrots), no dressing		0.428	CANNED	25.0%	0.571	0.100	0.000	0.470	0.571	0.000	0.285	0.285	0.000
27450130	17	0.18	Crab salad made with imitation crab		0.642	RESTRUCTURED	25.0%	0.856	0.445	0.137	0.274	0.000	0.856	0.000	0.428	0.428
27450150	2	0.02	Fish, tofu, and vegetables, tempura, Hawaiian style (mixture)		0.060	CANNED	25.0%	0.079	0.014	0.000	0.065	0.079	0.000	0.040	0.040	0.000
27450180	1	0.01	Seafood garden salad with seafood, lettuce, vegetables excluding tomato and carrots, no dressing	CRUSTACEANS, CRAB, BLUE, CANNED	0.150	CANNED	25.0%	0.200	0.055	0.000	0.145	0.000	0.200	0.000	0.200	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450180			Seafood garden salad with seafood, lettuce, vegetables excluding tomato and carrots, no dressing	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.150	CANNED	25.0%	0.200	0.035	0.000	0.165	0.200	0.000	0.100	0.100	0.000
27450310	2	0.02	Lomi salmon		0.349	CANNED	25.0%	0.466	0.447	0.002	0.016	0.000	0.466	0.000	0.000	0.466
27450400	16	0.17	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), no sauce (mixture)		0.241	STEAMED	21.0%	0.305	0.054	0.000	0.252	0.305	0.000	0.153	0.153	0.000
27450405	16	0.17	Shrimp and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), no sauce (mixture)		0.374	STEAMED	21.0%	0.473	0.083	0.000	0.390	0.473	0.000	0.236	0.236	0.000
27450410	99	1.04	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27450410			Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.322	COOKED MOIST HEAT	25.0%	0.430	0.076	0.000	0.354	0.430	0.000	0.215	0.215	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450420	27	0.28	Shrimp and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27450420			Shrimp and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.327	COOKED MOIST HEAT	25.0%	0.435	0.077	0.000	0.359	0.435	0.000	0.218	0.218	0.000
27450430	6	0.06	Shrimp shish kabob with vegetables, excluding potatoes		0.383	BAKED	25.0%	0.510	0.090	0.000	0.420	0.510	0.000	0.255	0.255	0.000
27450450	19	0.2	Shrimp creole, no rice		0.510	STEAMED	21.0%	0.645	0.114	0.000	0.532	0.645	0.000	0.323	0.323	0.000
27450470	5	0.05	Kung Pao shrimp		0.623	RAW	0.0%	0.623	0.110	0.000	0.514	0.623	0.000	0.312	0.312	0.000
27450510	2	0.02	Tuna casserole with vegetables and (mushroom) soup, no noodles		0.321	CANNED	25.0%	0.428	0.428	0.000	0.000	0.000	0.428	0.000	0.000	0.428
27450600	2	0.02	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450600			Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.161	COOKED MOIST HEAT	25.0%	0.215	0.038	0.000	0.177	0.215	0.000	0.107	0.107	0.000
27450600			Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce	MOLLUSKS, CLAM, MIXED SPECIES, CANNED, DRAINED SOLIDS	0.161	CANNED	25.0%	0.215	0.180	0.000	0.034	0.215	0.000	0.215	0.000	0.000
27450610	1	0.01	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27450610			Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.163	COOKED MOIST HEAT	25.0%	0.218	0.038	0.000	0.179	0.218	0.000	0.109	0.109	0.000
27450610			Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce	MOLLUSKS, CLAM, MIXED SPECIES, CANNED, DRAINED SOLIDS	0.163	CANNED	25.0%	0.218	0.183	0.000	0.035	0.218	0.000	0.218	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450650	1	0.01	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), (mushroom) soup (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.133	RAW	0.0%	0.133	0.023	0.000	0.110	0.133	0.000	0.066	0.066	0.000
27450650			Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), (mushroom) soup (mixture)	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.133	RAW	0.0%	0.133	0.112	0.000	0.021	0.133	0.000	0.133	0.000	0.000
27450660	1	0.01	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), (mushroom) soup (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.127	RAW	0.0%	0.127	0.022	0.000	0.105	0.127	0.000	0.064	0.064	0.000
27450660			Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), (mushroom) soup (mixture)	MOLLUSKS, CLAM, MIXED SPECIES, CANNED, DRAINED SOLIDS	0.179	CANNED	25.0%	0.239	0.201	0.000	0.038	0.239	0.000	0.239	0.000	0.000
27450700	8	0.08	Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)),		0.560	RAW	0.0%	0.560	0.487	0.000	0.073	0.000	0.560	0.000	0.280	0.280

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
			tomato-based sauce (mixture)													
27450710	14	0.15	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), tomato-based sauce (mixture)		0.555	RAW	0.0%	0.555	0.483	0.000	0.072	0.000	0.555	0.000	0.277	0.277
27450740	5	0.05	Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27450740			Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	FISH, COD, ATLANTIC, COOKED, DRY HEAT	0.336	COOKED DRY HEAT	25.0%	0.449	0.449	0.000	0.000	0.000	0.449	0.000	0.224	0.224
27450750	9	0.09	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450750			Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	FISH, COD, ATLANTIC, COOKED, DRY HEAT	0.341	COOKED DRY HEAT	25.0%	0.454	0.454	0.000	0.000	0.000	0.454	0.000	0.227	0.227
27451030	1	0.01	Lobster with sauce, Puerto Rican style (Langosta a la criolla)		0.422	RAW	0.0%	0.422	0.019	0.000	0.403	0.422	0.000	0.000	0.422	0.000
27460510	16	0.17	Antipasto with ham, fish, cheese, vegetables		0.065	CANNED	25.0%	0.087	0.000	0.000	0.087	0.000	0.087	0.043	0.043	0.000
27464000	41	0.43	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	CRUSTACEANS, CRAB, BLUE, COOKED, MOIST HEAT	0.019	COOKED MOIST HEAT	25.0%	0.025	0.007	0.000	0.018	0.000	0.025	0.000	0.025	0.000
27464000			Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.018	RAW	0.0%	0.018	0.003	0.000	0.015	0.018	0.000	0.009	0.009	0.000
27464000			Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	MOLLUSKS, OYSTER, EASTERN, WILD, RAW	0.052	RAW	0.0%	0.052	0.000	0.000	0.052	0.000	0.052	0.052	0.000	0.000
27550000	55	0.58	Fish sandwich, on bun, with spread		0.208	PREHEATED	25.0%	0.277	0.144	0.044	0.089	0.000	0.277	0.000	0.139	0.139
27550100	115	1.2	Fish sandwich, on bun, with cheese and spread		0.173	PREHEATED	25.0%	0.230	0.120	0.037	0.074	0.000	0.230	0.000	0.115	0.115

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27550720	2	0.02	Tuna salad sandwich		0.358	CANNED	25.0%	0.477	0.477	0.000	0.000	0.000	0.477	0.000	0.000	0.477
27550750	61	0.64	Tuna salad submarine sandwich, with lettuce and tomato		0.240	CANNED	25.0%	0.319	0.319	0.000	0.000	0.000	0.319	0.000	0.000	0.319
27550751	11	0.12	Tuna salad submarine sandwich, with cheese, lettuce and tomato		0.217	CANNED	25.0%	0.289	0.289	0.000	0.000	0.000	0.289	0.000	0.000	0.289
28120310	2	0.02	Pork with rice, vegetable, in soy-based sauce (diet frozen meal)		0.010	COOKED MOIST HEAT	25.0%	0.013	0.000	0.000	0.013	0.000	0.013	0.013	0.000	0.000
28150000	1	0.01	Fish dinner, NFS (frozen meal)		0.242	PREHEATED	25.0%	0.323	0.168	0.052	0.103	0.000	0.323	0.000	0.161	0.161
28150210	5	0.05	Haddock with chopped spinach (diet frozen meal)		0.414	RAW	0.0%	0.414	0.391	0.021	0.002	0.000	0.414	0.000	0.207	0.207
28150220	2	0.02	Flounder with chopped broccoli (diet frozen meal)		0.348	RAW	0.0%	0.348	0.302	0.000	0.045	0.000	0.348	0.000	0.174	0.174
28150510	3	0.03	Fish in lemon-butter sauce with starch item, vegetable (frozen meal)		0.240	RAW	0.0%	0.240	0.240	0.000	0.000	0.000	0.240	0.000	0.120	0.120
28150650	7	0.07	Fish, breaded, or fish sticks, with pasta, vegetable and dessert (frozen meal)		0.082	PREHEATED	25.0%	0.109	0.057	0.017	0.035	0.000	0.109	0.000	0.054	0.054
28152030	1	0.01	Seafood newburg with rice, vegetable (frozen meal)	CRUSTACEANS, LOBSTER, NORTHERN, COOKED, MOIST HEAT	0.010	COOKED MOIST HEAT	25.0%	0.013	0.001	0.000	0.013	0.013	0.000	0.000	0.013	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
28152030			Seafood newburg with rice, vegetable (frozen meal)	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.080	CANNED	25.0%	0.107	0.019	0.000	0.088	0.107	0.000	0.053	0.053	0.000
28152030			Seafood newburg with rice, vegetable (frozen meal)	CODFISH BALL OR CAKE	0.053	BAKED	25.0%	0.071	0.071	0.000	0.000	0.000	0.071	0.000	0.035	0.035
28152050	5	0.05	Shrimp with rice, vegetable (frozen meal)		0.095	CANNED	25.0%	0.127	0.022	0.000	0.105	0.127	0.000	0.063	0.063	0.000
28154010	5	0.05	Shrimp and vegetables in sauce with noodles (diet frozen meal)		0.139	CANNED	25.0%	0.185	0.033	0.000	0.153	0.185	0.000	0.093	0.093	0.000
28310330	27	0.28	Beef and rice noodle soup, Oriental style (Vietnamese Pho Bo)		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28320300	8	0.08	Pork with vegetable (excluding carrots, broccoli and/or dark-green leafy) soup, Oriental Style		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28350040	1	0.01	Fish stock, home recipe		0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28350050	16	0.17	Fish chowder		0.325	RAW	0.0%	0.325	0.325	0.000	0.000	0.000	0.325	0.000	0.162	0.162
28350110	6	0.06	Crab soup, NS as to tomato-base or cream style		0.222	COOKED MOIST HEAT	25.0%	0.296	0.081	0.000	0.215	0.000	0.296	0.000	0.296	0.000
28350120	1	0.01	Crab soup, tomato-base		0.221	COOKED MOIST HEAT	25.0%	0.295	0.080	0.000	0.214	0.000	0.295	0.000	0.295	0.000
28350210	15	0.16	Clam chowder, NS as to Manhattan or		0.399	CANNED	25.0%	0.532	0.447	0.000	0.085	0.532	0.000	0.532	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
			New England style													
28350220	10	0.1	Clam chowder, Manhattan		0.311	CANNED	25.0%	0.415	0.348	0.000	0.066	0.415	0.000	0.415	0.000	0.000
28351110	51	0.53	Fish and vegetable soup, no potatoes (Sopa de pescado)		0.227	RAW	0.0%	0.227	0.227	0.000	0.000	0.000	0.227	0.000	0.114	0.114
28351120	15	0.16	Fish soup, with potatoes (Sopa de Pescado)		0.237	RAW	0.0%	0.237	0.237	0.000	0.000	0.000	0.237	0.000	0.118	0.118
28355110	71	0.74	Clam chowder, New England, NS as to prepared with water or milk		0.399	CANNED	25.0%	0.532	0.447	0.000	0.085	0.532	0.000	0.532	0.000	0.000
28355120	11	0.12	Clam chowder, New England, prepared with milk		0.507	CANNED	25.0%	0.676	0.567	0.000	0.108	0.676	0.000	0.676	0.000	0.000
28355130	8	0.08	Clam chowder, New England, prepared with water		0.405	CANNED	25.0%	0.540	0.454	0.000	0.086	0.540	0.000	0.540	0.000	0.000
28355140	33	0.35	Clam chowder, New England, canned, reduced sodium, ready-to-serve		0.402	CANNED	25.0%	0.536	0.450	0.000	0.086	0.536	0.000	0.536	0.000	0.000
28355210	4	0.04	Crab soup, cream of, prepared with milk		0.267	COOKED MOIST HEAT	25.0%	0.356	0.097	0.000	0.259	0.000	0.356	0.000	0.356	0.000
28355250	8	0.08	Lobster bisque		0.238	COOKED MOIST HEAT	25.0%	0.317	0.014	0.000	0.303	0.317	0.000	0.000	0.317	0.000
28355310	11	0.12	Oyster stew		0.322	RAW	0.0%	0.322	0.000	0.000	0.322	0.000	0.322	0.322	0.000	0.000
28355350	2	0.02	Salmon soup, cream style		0.452	CANNED	25.0%	0.602	0.578	0.003	0.021	0.000	0.602	0.000	0.000	0.602

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
28355410	14	0.15	Shrimp soup, cream of, NS as to prepared with milk or water		0.031	CANNED	25.0%	0.041	0.007	0.000	0.034	0.041	0.000	0.020	0.020	0.000
28355420	1	0.01	Shrimp soup, cream of, prepared with milk		0.239	CANNED	25.0%	0.319	0.056	0.000	0.263	0.319	0.000	0.159	0.159	0.000
28355430	10	0.1	Shrimp soup, cream of, prepared with water		0.031	CANNED	25.0%	0.041	0.007	0.000	0.034	0.041	0.000	0.020	0.020	0.000
28355440	3	0.03	Shrimp gumbo		0.108	CANNED	25.0%	0.144	0.025	0.000	0.118	0.144	0.000	0.072	0.072	0.000
28355450	48	0.5	Seafood soup with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy)		0.117	RAW	0.0%	0.117	0.117	0.000	0.000	0.000	0.117	0.000	0.059	0.059
28355460	13	0.14	Seafood soup with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy)		0.115	RAW	0.0%	0.115	0.115	0.000	0.000	0.000	0.115	0.000	0.058	0.058
28355470	30	0.31	Seafood soup with vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes))		0.119	RAW	0.0%	0.119	0.119	0.000	0.000	0.000	0.119	0.000	0.059	0.059
28355480	29	0.3	Seafood soup with vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes))		0.116	RAW	0.0%	0.116	0.116	0.000	0.000	0.000	0.116	0.000	0.058	0.058

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
32105013	1	0.01	Egg omelet or scrambled egg, with seafood		0.171	COOKED MOIST HEAT	25.0%	0.228	0.040	0.000	0.188	0.228	0.000	0.114	0.114	0.000
32105020	10	0.1	Egg omelet or scrambled egg, with fish		0.149	CANNED	25.0%	0.199	0.191	0.001	0.007	0.000	0.199	0.000	0.000	0.199
32105230	14	0.15	Shrimp egg foo yung (young)		0.110	CANNED	25.0%	0.147	0.026	0.000	0.121	0.147	0.000	0.073	0.073	0.000
32110150	1	0.01	Shrimp-egg patty (Torta de Cameron seco)		0.356	DRIED	80.0%	1.781	0.313	0.000	1.467	1.781	0.000	0.890	0.890	0.000
54406200	10	0.1	Shrimp chips (tapioca base)		0.250	CANNED	25.0%	0.333	0.059	0.000	0.275	0.333	0.000	0.167	0.167	0.000
58100900	1	0.01	Enchilada with seafood, tomato-based sauce		0.281	CANNED	25.0%	0.375	0.066	0.000	0.309	0.375	0.000	0.187	0.187	0.000
58101540	21	0.22	Taco or tostada with fish, lettuce, tomato, salsa	CRUSTACEANS, CRAB, BLUE, CANNED	0.196	CANNED	25.0%	0.262	0.071	0.000	0.190	0.000	0.262	0.000	0.262	0.000
58101540			Taco or tostada with fish, lettuce, tomato, salsa	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.196	CANNED	25.0%	0.262	0.046	0.000	0.216	0.262	0.000	0.131	0.131	0.000
58106910	4	0.04	Pizza with seafood, thin crust	CRUSTACEANS, CRAB, ALASKA KING, IMITATION, MADE FROM SURIMI	0.065	RESTRUCTURED	25.0%	0.087	0.024	0.000	0.063	0.000	0.087	0.000	0.087	0.000
58106910			Pizza with seafood, thin crust	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.065	COOKED MOIST HEAT	25.0%	0.087	0.015	0.000	0.072	0.087	0.000	0.043	0.043	0.000
58106915	2	0.02	Pizza with seafood, regular crust	CRUSTACEANS, CRAB, ALASKA KING, IMITATION,	0.065	RESTRUCTURED	25.0%	0.087	0.024	0.000	0.063	0.000	0.087	0.000	0.087	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
				MADE FROM SURIMI												
58106915			Pizza with seafood, regular crust	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.065	COOKED MOIST HEAT	25.0%	0.087	0.015	0.000	0.072	0.087	0.000	0.043	0.043	0.000
58106920	1	0.01	Pizza with seafood, thick crust	CRUSTACEANS, CRAB, ALASKA KING, IMITATION, MADE FROM SURIMI	0.065	RESTRUCTURED	25.0%	0.087	0.024	0.000	0.063	0.000	0.087	0.000	0.087	0.000
58106920			Pizza with seafood, thick crust	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.065	COOKED MOIST HEAT	25.0%	0.087	0.015	0.000	0.072	0.087	0.000	0.043	0.043	0.000
58110120	61	0.64	Egg roll, with shrimp		0.091	COOKED MOIST HEAT	25.0%	0.121	0.021	0.000	0.100	0.121	0.000	0.061	0.061	0.000
58111200	31	0.32	Puffs, fried, crab meat and cream cheese filled		0.183	RESTRUCTURED	25.0%	0.245	0.127	0.039	0.078	0.000	0.245	0.000	0.122	0.122
58112510	45	0.47	Dumpling, steamed, filled with meat, poultry, or seafood		0.138	RAW	0.0%	0.138	0.024	0.000	0.114	0.138	0.000	0.069	0.069	0.000
58117410	15	0.16	Codfish fritter, Puerto Rican style (Bacalaitos fritos)		0.103	SALTED	30.0%	0.147	0.147	0.000	0.000	0.000	0.147	0.000	0.073	0.073
58120110	3	0.03	Crepes, filled with meat, fish, or poultry, with sauce		0.107	CANNED	25.0%	0.143	0.143	0.000	0.000	0.000	0.143	0.000	0.000	0.143
58128210	7	0.07	Dressing with oysters		0.246	RAW	0.0%	0.246	0.000	0.000	0.246	0.000	0.246	0.246	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
58132800	8	0.08	Spaghetti with clam sauce, NS as to red or white		0.296	COOKED MOIST HEAT	25.0%	0.395	0.331	0.000	0.063	0.395	0.000	0.395	0.000	0.000
58132810	3	0.03	Spaghetti with red clam sauce		0.236	CANNED	25.0%	0.314	0.264	0.000	0.050	0.314	0.000	0.314	0.000	0.000
58132820	4	0.04	Spaghetti with white clam sauce		0.296	COOKED MOIST HEAT	25.0%	0.395	0.331	0.000	0.063	0.395	0.000	0.395	0.000	0.000
58136130	64	0.67	Lo mein, with shrimp		0.084	COOKED MOIST HEAT	25.0%	0.112	0.020	0.000	0.092	0.112	0.000	0.056	0.056	0.000
58137210	5	0.05	Pad Thai, NFS	SAUCE, FISH, READY-TO-SERVE	0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58137210			Pad Thai, NFS	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.063	RAW	0.0%	0.063	0.011	0.000	0.052	0.063	0.000	0.032	0.032	0.000
58137220	11	0.12	Pad Thai, meatless		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58137230	23	0.24	Pad Thai with chicken		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58137240	11	0.12	Pad Thai with seafood	SAUCE, FISH, READY-TO-SERVE	0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58137240			Pad Thai with seafood	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.190	RAW	0.0%	0.190	0.034	0.000	0.157	0.190	0.000	0.095	0.095	0.000
58137250	6	0.06	Pad Thai with meat		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58145120	46	0.48	Macaroni or noodles with cheese and tuna		0.226	CANNED	25.0%	0.301	0.301	0.000	0.000	0.000	0.301	0.000	0.000	0.301
58147340	7	0.07	Macaroni, creamed, with cheese and tuna		0.217	CANNED	25.0%	0.289	0.289	0.000	0.000	0.000	0.289	0.000	0.000	0.289
58148130	45	0.47	Macaroni or pasta salad with tuna		0.152	CANNED	25.0%	0.203	0.203	0.000	0.000	0.000	0.203	0.000	0.000	0.203
58148140	8	0.08	Macaroni or pasta salad with crab meat		0.136	COOKED MOIST HEAT	25.0%	0.181	0.049	0.000	0.132	0.000	0.181	0.000	0.181	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
58148150	21	0.22	Macaroni or pasta salad with shrimp		0.130	CANNED	25.0%	0.173	0.030	0.000	0.142	0.173	0.000	0.086	0.086	0.000
58148160	30	0.31	Macaroni or pasta salad with tuna and egg		0.169	CANNED	25.0%	0.225	0.225	0.000	0.000	0.000	0.225	0.000	0.000	0.225
58150510	230	2.41	Rice, fried, with shrimp		0.150	COOKED MOIST HEAT	25.0%	0.200	0.035	0.000	0.165	0.200	0.000	0.100	0.100	0.000
58151100	16	0.17	Sushi, NFS		0.089	RAW	0.0%	0.089	0.070	0.000	0.020	0.000	0.089	0.000	0.000	0.089
58151130	155	1.62	Sushi, with vegetables and seafood		0.152	RAW	0.0%	0.152	0.132	0.000	0.020	0.000	0.152	0.000	0.076	0.076
58151150	10	0.1	Sushi, with seafood, no vegetables		0.158	RAW	0.0%	0.158	0.137	0.000	0.020	0.000	0.158	0.000	0.079	0.079
58155320	3	0.03	Seafood paella, Puerto Rican style	FISH, SNAPPER, MIXED SPECIES, RAW	0.034	RAW	0.0%	0.034	0.033	0.000	0.001	0.000	0.034	0.000	0.000	0.034
58155320			Seafood paella, Puerto Rican style	CRUSTACEANS, LOBSTER, NORTHERN, RAW	0.068	RAW	0.0%	0.068	0.003	0.000	0.065	0.068	0.000	0.000	0.068	0.000
58155320			Seafood paella, Puerto Rican style	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.137	RAW	0.0%	0.137	0.024	0.000	0.113	0.137	0.000	0.068	0.068	0.000
58155320			Seafood paella, Puerto Rican style	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.018	RAW	0.0%	0.018	0.015	0.000	0.003	0.018	0.000	0.018	0.000	0.000
58304400	1	0.01	Linguini with vegetables and seafood in white wine sauce (diet frozen meal)	MOLLUSKS, CLAM, MIXED SPECIES, CANNED, DRAINED SOLIDS	0.120	CANNED	25.0%	0.160	0.134	0.000	0.026	0.160	0.000	0.160	0.000	0.000
58304400			Linguini with vegetables and seafood in white wine sauce (diet frozen meal)	MOLLUSKS, SCALLOP, (BAY AND SEA), COOKED, STEAMED	0.120	STEAMED	21.0%	0.152	0.000	0.000	0.152	0.152	0.000	0.152	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
58407050	15	0.16	Instant soup, noodle with egg, shrimp or chicken		0.010	CANNED	25.0%	0.014	0.002	0.000	0.011	0.014	0.000	0.007	0.007	0.000
58409000	16	0.17	Noodle soup, with fish ball, shrimp, and dark green leafy vegetable	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.026	COOKED MOIST HEAT	25.0%	0.035	0.006	0.000	0.029	0.035	0.000	0.017	0.017	0.000
58409000			Noodle soup, with fish ball, shrimp, and dark green leafy vegetable	CODFISH BALL OR CAKE	0.066	BAKED	25.0%	0.088	0.088	0.000	0.000	0.000	0.088	0.000	0.044	0.044
72116140	7	0.07	Caesar salad (with romaine)		0.038	CANNED	25.0%	0.051	0.000	0.000	0.051	0.000	0.051	0.025	0.025	0.000
72308000	10	0.1	Dark-green leafy vegetable soup with meat, Oriental style		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75146000	1	0.01	Greek Salad		0.032	CANNED	25.0%	0.042	0.000	0.000	0.042	0.000	0.042	0.021	0.021	0.000

DRAFT Do not cite or quote

**Usual Fish Consumption Rate Tables**

*DRAFT Do not cite or quote*

## Table of Contents

<b>Table</b>		<b>Page</b>
Table C-1.	Total finfish and shellfish usual fish consumption rate estimates, all ages .....	C-1
Table C-2.	Total finfish and shellfish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-3
Table C-3.	Total finfish and shellfish usual fish consumption rate estimates, youth $< 21$ years.....	C-5
Table C-4.	Total finfish usual fish consumption rate estimates, all ages .....	C-7
Table C-5.	Total finfish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-9
Table C-6.	Total finfish usual fish consumption rate estimates, youth $< 21$ years .....	C-11
Table C-7.	Total shellfish usual fish consumption rate estimates, all ages .....	C-13
Table C-8.	Total shellfish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-15
Table C-9.	Total shellfish usual fish consumption rate estimates, youth $< 21$ years .....	C-17
Table C-10.	Marine fish usual fish consumption rate estimates, all ages .....	C-19
Table C-11.	Marine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-21
Table C-12.	Marine fish usual fish consumption rate estimates, youth $< 21$ years .....	C-23
Table C-13.	Freshwater fish usual fish consumption rate estimates, all ages .....	C-25
Table C-14.	Freshwater fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-27
Table C-15.	Freshwater fish usual fish consumption rate estimates, youth $< 21$ years .....	C-29
Table C-16.	Estuarine fish usual fish consumption rate estimates, all ages.....	C-31
Table C-17.	Estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-33
Table C-18.	Estuarine fish usual fish consumption rate estimates, youth $> 21$ years .....	C-35
Table C-19.	Freshwater + estuarine fish usual fish consumption rate estimates, all ages .....	C-37
Table C-20.	Freshwater + estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-39
Table C-21.	Freshwater + estuarine fish usual fish consumption rate estimates, youth $< 21$ years .....	C-41
Table C-22.	Marine + freshwater fish usual fish consumption rate estimates, all ages .....	C-43
Table C-23.	Marine + freshwater fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-45
Table C-24.	Marine + freshwater fish usual fish consumption rate estimates, youth $< 21$ years.....	C-47
Table C-25.	Marine + estuarine fish usual fish consumption rate estimates, all ages.....	C-49
Table C-26.	Marine + estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-51
Table C-27.	Marine + estuarine fish usual fish consumption rate estimates, youth $< 21$ years.....	C-53
Table C-28.	Trophic level 2 fish usual fish consumption rate estimates, all ages.....	C-55
Table C-29.	Trophic level 2 fish usual fish consumption rate estimates, adults $\geq 21$ years.....	C-57
Table C-30.	Trophic level 2 fish usual fish consumption rate estimates, youth $< 21$ years.....	C-59
Table C-31.	Trophic level 3 fish usual fish consumption rate estimates, all ages.....	C-61

## Table of Contents (continued)

---

<b><u>Table</u></b>	<b><u>Page</u></b>
Table C-32. Trophic level 3 fish usual fish consumption rate estimates, adults $\geq 21$ years.....	C-63
Table C-33. Trophic level 3 fish usual fish consumption rate estimates, youth $< 21$ years.....	C-65
Table C-34. Trophic level 4 fish usual fish consumption rate estimates, all ages.....	C-67
Table C-35. Trophic level 4 fish usual fish consumption rate estimates, adults $\geq 21$ years.....	C-69
Table C-36. Trophic level 4 fish usual fish consumption rate estimates, youth $< 21$ years.....	C-71
Table C-37. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, all ages .....	C-73
Table C-38. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years.....	C-75
Table C-39. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, youth $< 21$ years .....	C-77
Table C-40. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, all ages .....	C-79
Table C-41. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years.....	C-81
Table C-42. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, youth $< 21$ years .....	C-83
Table C-43. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, all ages .....	C-85
Table C-44. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years.....	C-87
Table C-45. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, youth $< 21$ years .....	C-89
Table C-46. Trophic level 2 marine fish usual fish consumption rate estimates, all ages .....	C-91
Table C-47. Trophic level 2 marine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-93
Table C-48. Trophic level 2 marine fish usual fish consumption rate estimates, youth $< 21$ years.....	C-95
Table C-49. Trophic level 3 marine fish usual fish consumption rate estimates, all ages .....	C-97
Table C-50. Trophic level 3 marine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-99
Table C-51. Trophic level 3 marine fish usual fish consumption rate estimates, youth $< 21$ years.....	C-101
Table C-52. Trophic level 4 marine fish usual fish consumption rate estimates, all ages .....	C-103
Table C-53. Trophic level 4 marine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-105
Table C-54. Trophic level 4 marine fish usual fish consumption rate estimates, youth $< 21$ years.....	C-107
Table C-55. Percent reporting fish consumption on either 24-hr recall, by fish type.....	C-109
Table C-56. Percent reporting fish consumption on both 24-hr recalls, by fish type.....	C-110

Table C-1. Total finfish and shellfish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	17.11 (13.9,21.1)	3.96 (2.3,6.7)	11.89 (8.5,16.6)	23.95 (19.3,29.7)	40.47 (33.1,49.5)	52.64 (43.3,64.0)	60.91 (49.9,74.3)	80.14 (64.0,100.4)
<b>Gender</b>								
Female	15.29 (12.2,19.2)	3.56 (2.0,6.2)	10.84 (7.6,15.5)	21.67 (17.0,27.6)	35.99 (29.0,44.6)	46.59 (37.8,57.4)	54.10 (43.8,66.8)	68.01 (53.4,86.7)
Male	19.30 (15.8,23.6)	4.49 (2.7,7.4)	13.37 (9.7,18.4)	27.06 (21.8,33.6)	45.56 (37.5,55.4)	58.70 (48.1,71.6)	69.35 (56.7,84.8)	91.76 (74.0,113.8)
<b>Age</b>								
1 to <3 yrs	4.75 (2.7,8.3)	0.70 (0.4,1.4)	2.15 (1.2,4.0)	5.26 (3.4,8.2)	11.58 (7.0,19.1)	18.78 (9.9,35.7)	24.71 (12.1,50.5)	38.03 (17.6,82.2)
3 to <6 yrs	6.28 (3.7,10.6)	1.11 (0.5,2.7)	3.95 (1.5,10.2)	8.39 (4.7,15.1)	14.75 (9.8,22.2)	20.61 (14.0,30.3)	23.93 (17.5,32.7)	38.02 (23.6,61.3)
6 to <11 yrs	8.42 (5.1,14.0)	1.36 (0.8,2.5)	4.66 (2.5,8.9)	11.41 (6.7,19.4)	21.39 (12.6,36.2)	29.46 (17.6,49.3)	35.01 (21.2,57.7)	48.43 (28.2,83.1)
11 to <16 yrs	7.93 (5.5,11.4)	1.39 (0.8,2.3)	4.31 (2.6,7.3)	10.81 (7.3,16.1)	19.30 (12.8,29.1)	27.59 (18.4,41.3)	33.63 (22.5,50.3)	47.19 (30.5,73.1)
16 to <18 yrs	9.54 (6.8,13.3)	1.54 (0.9,2.6)	5.27 (3.1,9.0)	12.99 (8.9,18.9)	24.38 (17.7,33.5)	33.98 (23.5,49.1)	39.45 (27.7,56.2)	53.66 (37.2,77.4)
18 to <21 yrs	15.06 (8.7,26.2)	2.29 (1.3,3.9)	7.93 (4.5,13.9)	19.57 (11.2,34.3)	40.93 (19.2,87.1)	57.07 (28.0,116.3)	64.66 (37.7,110.9)	94.01 (50.7,174.4)
21 to <35 yrs	17.98 (12.9,25.0)	5.13 (2.2,11.9)	13.07 (7.3,23.4)	24.45 (17.2,34.8)	40.55 (30.9,53.2)	53.21 (41.8,67.7)	62.05 (49.9,77.2)	86.18 (66.5,111.6)
35 to <50 yrs	19.83 (16.2,24.3)	7.57 (5.2,11.0)	15.50 (12.4,19.4)	27.40 (22.3,33.7)	42.77 (34.0,53.8)	53.97 (41.8,69.7)	61.78 (46.3,82.4)	78.66 (55.0,112.5)
50 to <65 yrs	26.13 (19.1,35.8)	11.27 (6.3,20.3)	21.30 (14.5,31.2)	36.06 (26.3,49.4)	53.88 (40.6,71.5)	65.64 (51.1,84.3)	75.37 (57.6,98.5)	95.56 (71.2,128.2)
65+ yrs	18.26 (13.4,24.9)	6.72 (4.7,9.6)	13.90 (9.9,19.5)	25.24 (18.5,34.5)	39.64 (28.6,55.0)	51.67 (38.8,68.9)	58.70 (41.7,82.6)	72.65 (45.8,115.3)
<b>Income</b>								
<\$20,000	13.95 (11.5,17.0)	2.61 (1.8,3.9)	8.87 (6.6,12.0)	19.38 (15.6,24.1)	33.22 (27.2,40.6)	44.86 (36.7,54.9)	53.15 (42.8,66.0)	73.68 (57.6,94.2)
>\$20,000	17.62 (14.3,21.7)	4.36 (2.5,7.6)	12.46 (9.0,17.3)	24.63 (19.9,30.4)	41.46 (33.9,50.8)	53.75 (44.0,65.7)	61.62 (50.2,75.7)	80.81 (64.0,102.0)
Income unknown	19.81 (9.5,41.3)	4.53 (1.2,16.7)	14.21 (4.7,42.8)	28.68 (12.7,64.6)	46.27 (25.4,84.3)	58.22 (35.5,95.5)	67.81 (41.9,109.7)	87.44 (54.6,140.0)
<b>Income, finer detail</b>								
<\$20,000	13.95 (11.5,17.0)	2.61 (1.8,3.9)	8.87 (6.6,12.0)	19.38 (15.6,24.1)	33.22 (27.2,40.6)	44.86 (36.7,54.9)	53.15 (42.8,66.0)	73.68 (57.6,94.2)
\$20k-\$45k	15.33 (12.3,19.1)	3.48 (2.1,5.9)	10.72 (7.1,16.1)	21.15 (16.9,26.5)	35.37 (28.8,43.5)	47.77 (38.9,58.7)	55.46 (45.4,67.7)	74.03 (59.5,92.1)
\$45k-\$75k	16.74 (13.0,21.5)	4.00 (2.4,6.6)	11.75 (8.3,16.7)	23.67 (18.1,31.0)	39.42 (30.8,50.4)	50.65 (39.0,65.7)	59.99 (46.0,78.2)	78.48 (57.4,107.3)
\$75k+	20.09 (16.3,24.7)	5.59 (3.1,10.2)	14.63 (11.1,19.3)	28.55 (23.1,35.3)	46.50 (37.8,57.2)	58.48 (47.8,71.6)	66.62 (53.7,82.7)	87.10 (69.3,109.5)
>\$20,000	17.86 (11.0,29.1)	5.02 (2.4,10.5)	13.68 (6.6,28.2)	25.83 (14.8,45.2)	39.77 (26.1,60.7)	50.28 (33.7,74.9)	58.04 (39.6,85.0)	74.62 (51.0,109.2)
Inc Ref/DK	19.55 (10.0,38.3)	4.56 (1.5,13.5)	14.67 (5.1,41.8)	28.36 (14.0,57.5)	44.94 (26.2,77.1)	56.63 (35.4,90.7)	66.65 (39.6,112.1)	77.62 (54.7,110.2)
Inc missing	20.31 (6.8,60.2)	4.50 (0.6,32.2)	13.06 (3.2,53.0)	29.07 (8.6,98.2)	49.43 (17.8,137.3)	59.15 (28.9,121.2)	67.90 (35.2,131.0)	103.07 (42.1,252.3)
<b>Race/Ethnicity</b>								
Mexican American	15.00 (11.3,20.0)	2.83 (1.7,4.6)	9.73 (6.0,15.7)	21.37 (15.3,29.8)	36.59 (27.7,48.4)	48.34 (37.0,63.2)	56.48 (43.5,73.3)	72.89 (53.7,98.9)
Other Hispanic	15.27 (11.4,20.5)	2.61 (1.7,4.0)	9.36 (6.7,13.1)	21.40 (15.9,28.9)	39.46 (26.8,58.2)	52.82 (34.8,80.3)	61.27 (41.3,90.8)	74.10 (52.0,105.5)
White	16.27 (13.2,20.0)	3.93 (2.2,7.1)	11.47 (8.3,15.8)	22.81 (18.5,28.2)	38.05 (30.9,46.8)	49.54 (39.7,61.8)	57.65 (45.6,72.8)	75.37 (57.9,98.0)
Black	17.92 (14.6,22.0)	4.89 (3.2,7.5)	13.33 (9.7,18.4)	25.44 (20.2,32.1)	41.21 (33.5,50.7)	51.80 (42.7,62.9)	60.52 (49.8,73.6)	76.51 (59.9,97.8)
Other race	29.04 (19.2,43.8)	8.90 (3.3,23.7)	22.06 (12.2,40.0)	42.27 (25.4,70.2)	62.13 (47.5,81.2)	81.20 (59.5,110.8)	95.56 (70.1,130.2)	122.79 (89.0,169.5)

Table C-1. Total finfish and shellfish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25th	50th	75th	90th	95th	97th	99th
<b>Region</b>								
Midwest	12.26 (9.5,15.8)	2.67 (1.6,4.6)	8.65 (5.7,13.1)	17.16 (13.0,22.7)	28.37 (21.3,37.7)	37.34 (27.6,50.5)	43.98 (32.0,60.4)	58.80 (41.9,82.5)
Northeast	21.17 (16.4,27.4)	4.47 (3.1,6.5)	14.95 (11.2,19.9)	30.92 (23.4,40.8)	50.76 (37.9,68.0)	62.99 (48.5,81.8)	72.32 (55.9,93.5)	92.62 (70.2,122.2)
South	17.81 (13.8,22.9)	4.32 (2.4,7.7)	12.73 (8.3,19.5)	24.67 (19.1,31.9)	41.00 (32.8,51.3)	53.48 (42.9,66.6)	62.38 (50.2,77.5)	87.13 (66.6,114.0)
West	18.51 (14.5,23.7)	4.85 (2.7,8.9)	13.67 (9.8,19.1)	26.65 (20.3,35.1)	43.17 (33.5,55.7)	54.97 (43.1,70.2)	61.36 (48.2,78.1)	75.90 (54.1,106.4)
<b>Coastal Status</b>								
Noncoastal	15.83 (11.8,21.2)	3.58 (2.0,6.5)	11.08 (7.1,17.3)	22.11 (16.5,29.6)	37.35 (28.4,49.0)	48.97 (37.4,64.1)	56.99 (43.8,74.1)	75.46 (57.4,99.2)
Coastal	19.13 (15.9,23.0)	4.62 (3.2,6.7)	13.60 (10.8,17.2)	27.21 (22.3,33.2)	44.77 (36.8,54.5)	57.56 (46.5,71.2)	66.42 (53.0,83.2)	87.00 (67.2,112.7)
<b>Coastal/Inland Region</b>								
Pacific	18.18 (14.4,22.9)	4.04 (2.6,6.3)	13.17 (9.7,17.9)	26.52 (20.9,33.7)	43.33 (35.0,53.7)	55.12 (44.2,68.7)	61.58 (46.1,82.2)	75.91 (47.6,121.1)
Atlantic	20.01 (14.2,28.2)	5.56 (3.6,8.5)	14.81 (10.3,21.4)	28.43 (19.7,41.0)	45.87 (32.7,64.4)	58.00 (41.1,81.8)	65.82 (45.5,95.2)	84.62 (57.8,123.9)
Gulf of Mexico	24.33 (15.2,38.8)	5.88 (2.1,16.8)	16.26 (8.2,32.2)	33.83 (19.4,58.9)	57.49 (35.9,92.1)	74.70 (49.0,113.9)	89.57 (57.2,140.1)	118.97 (75.7,187.1)
Great Lakes	13.62 (9.5,19.4)	2.80 (1.9,4.2)	9.00 (6.2,13.1)	19.04 (12.9,28.2)	32.51 (21.7,48.7)	42.77 (28.1,65.0)	50.61 (34.2,74.9)	69.85 (49.3,99.0)
Inland Northeast	21.18 (13.6,33.0)	3.60 (2.2,5.9)	14.03 (9.2,21.4)	31.24 (19.3,50.7)	52.01 (31.1,86.9)	65.49 (40.7,105.3)	75.70 (47.2,121.5)	95.75 (63.0,145.4)
Inland Midwest	11.87 (8.5,16.5)	2.63 (1.3,5.2)	8.55 (4.9,14.8)	16.63 (11.7,23.6)	27.17 (20.5,36.1)	36.12 (26.9,48.6)	42.39 (31.6,56.8)	55.02 (40.4,74.9)
Inland South	15.50 (11.1,21.6)	3.60 (1.9,6.9)	11.50 (6.2,21.3)	21.92 (15.2,31.6)	35.01 (27.5,44.5)	45.54 (36.3,57.2)	52.47 (42.4,64.9)	68.44 (53.3,87.9)
Inland West	18.84 (12.4,28.7)	5.69 (2.0,15.8)	14.04 (8.6,23.0)	26.71 (17.5,40.7)	43.03 (28.4,65.1)	54.69 (37.0,80.9)	61.28 (43.0,87.3)	74.90 (51.9,108.2)

Table C-2. Total finfish and shellfish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	20.51 (16.9,24.9)	7.27 (4.5,11.7)	15.73 (11.9,20.7)	28.31 (23.1,34.6)	44.83 (37.1,54.2)	56.75 (46.7,69.0)	65.15 (52.8,80.3)	85.30 (67.9,107.2)
<b>Gender</b>								
Female	18.11 (14.6,22.5)	6.47 (3.8,11.1)	14.01 (10.4,18.8)	25.18 (20.2,31.4)	39.85 (32.2,49.3)	50.02 (40.6,61.6)	57.56 (46.5,71.2)	71.24 (54.6,93.0)
Male	23.56 (19.4,28.5)	8.71 (5.6,13.6)	18.11 (14.1,23.3)	32.29 (26.5,39.4)	50.97 (42.0,61.8)	64.06 (52.2,78.7)	74.82 (60.9,92.0)	97.15 (77.2,122.2)
<b>Age</b>								
21 to <35 yrs	17.98 (12.9,25.0)	5.13 (2.2,11.9)	13.07 (7.3,23.4)	24.45 (17.2,34.8)	40.55 (30.9,53.2)	53.21 (41.8,67.7)	62.05 (49.9,77.2)	86.18 (66.5,111.6)
35 to <50 yrs	19.83 (16.2,24.3)	7.57 (5.2,11.0)	15.50 (12.4,19.4)	27.40 (22.3,33.7)	42.77 (34.0,53.8)	53.97 (41.8,69.7)	61.78 (46.3,82.4)	78.66 (55.0,112.5)
50 to <65 yrs	26.13 (19.1,35.8)	11.27 (6.3,20.3)	21.30 (14.5,31.2)	36.06 (26.3,49.4)	53.88 (40.6,71.5)	65.64 (51.1,84.3)	75.37 (57.6,98.5)	95.56 (71.2,128.2)
65+ yrs	18.26 (13.4,24.9)	6.72 (4.7,9.6)	13.90 (9.9,19.5)	25.24 (18.5,34.5)	39.64 (28.6,55.0)	51.67 (38.8,68.9)	58.70 (41.7,82.6)	72.65 (45.8,115.3)
<b>WCA (13-49 years)</b>	15.34 (12.2,19.3)	4.01 (2.2,7.3)	11.21 (7.7,16.4)	21.53 (16.8,27.5)	34.99 (28.6,42.9)	45.62 (37.2,56.0)	53.36 (43.0,66.2)	67.82 (53.6,85.8)
<b>Income</b>								
<\$20,000	16.88 (13.9,20.6)	4.47 (2.8,7.1)	11.97 (9.2,15.6)	23.26 (18.8,28.7)	37.42 (30.2,46.4)	48.81 (38.5,61.9)	57.88 (46.0,72.7)	83.56 (63.1,110.6)
>\$20,000	21.06 (17.4,25.5)	7.79 (5.0,12.1)	16.30 (12.5,21.2)	29.00 (23.7,35.5)	45.74 (37.8,55.4)	57.55 (47.1,70.3)	65.62 (52.7,81.7)	84.62 (65.7,109.0)
Income unknown	23.40 (11.4,47.9)	8.11 (1.8,36.8)	18.61 (6.8,51.1)	31.80 (16.9,59.8)	52.01 (27.4,98.8)	63.47 (37.9,106.4)	72.31 (44.9,116.4)	90.69 (57.3,143.4)
<b>Income, finer detail</b>								
<\$20,000	16.88 (13.9,20.6)	4.47 (2.8,7.1)	11.97 (9.2,15.6)	23.26 (18.8,28.7)	37.42 (30.2,46.4)	48.81 (38.5,61.9)	57.88 (46.0,72.7)	83.56 (63.1,110.6)
\$20k-\$45k	18.08 (14.8,22.0)	6.32 (3.6,11.1)	13.81 (10.1,18.8)	24.56 (19.9,30.3)	39.26 (32.2,47.8)	51.10 (41.9,62.3)	59.00 (48.2,72.2)	77.40 (60.0,99.9)
\$45k-\$75k	19.92 (15.6,25.4)	6.94 (4.6,10.5)	15.30 (11.1,21.1)	27.60 (21.2,35.9)	43.26 (34.0,55.0)	55.12 (42.5,71.4)	63.46 (48.0,84.0)	81.60 (58.5,113.9)
\$75k+	24.34 (20.0,29.6)	9.99 (6.9,14.4)	19.35 (15.4,24.3)	33.90 (27.5,41.9)	51.38 (41.8,63.1)	62.26 (50.2,77.3)	71.28 (56.9,89.3)	90.52 (69.7,117.6)
>\$20,000	20.61 (13.2,32.3)	7.58 (3.9,14.6)	16.85 (9.2,30.9)	27.98 (18.5,42.3)	42.57 (28.7,63.2)	54.01 (36.3,80.3)	61.71 (41.6,91.5)	83.36 (52.9,131.4)
Inc Ref/DK	22.97 (11.8,44.7)	8.18 (2.1,32.2)	18.29 (7.6,44.0)	31.87 (17.2,58.9)	51.22 (27.2,96.5)	62.13 (36.6,105.5)	72.31 (40.2,130.2)	85.30 (55.2,131.7)
Inc missing	24.35 (8.4,71.0)	7.83 (1.0,59.5)	19.30 (4.3,87.3)	31.80 (12.2,83.1)	54.39 (21.2,139.3)	63.67 (30.6,132.5)	89.96 (29.1,277.9)	108.79 (39.6,299.0)
<b>Race/Ethnicity</b>								
Mexican American	20.10 (14.5,27.8)	6.35 (3.0,13.3)	16.02 (9.6,26.7)	28.10 (19.9,39.7)	43.86 (32.8,58.7)	55.33 (42.2,72.5)	63.75 (48.6,83.7)	79.80 (56.4,112.8)
Other Hispanic	20.35 (14.4,28.7)	6.89 (3.5,13.6)	15.06 (10.4,21.7)	27.81 (20.0,38.7)	46.89 (30.9,71.2)	59.47 (39.2,90.2)	67.60 (46.5,98.3)	79.52 (55.0,115.1)
White	19.01 (15.6,23.1)	6.89 (4.4,10.9)	14.59 (11.4,18.7)	26.22 (21.4,32.1)	41.70 (33.9,51.3)	52.74 (41.7,66.7)	60.42 (46.5,78.5)	78.18 (58.7,104.1)
Black	22.22 (17.6,28.0)	8.89 (5.2,15.3)	17.85 (12.9,24.6)	30.74 (24.2,39.0)	46.59 (38.2,56.9)	58.00 (47.6,70.7)	66.16 (54.0,81.1)	82.63 (64.4,106.1)
Other race	34.96 (24.2,50.5)	15.15 (7.2,31.9)	28.78 (17.6,47.1)	49.09 (31.3,77.0)	71.11 (51.3,98.5)	89.81 (66.0,122.1)	105.37 (75.2,147.7)	131.76 (89.0,195.1)

Table C-2. Total finfish and shellfish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	14.73 (11.4,19.0)	5.25 (3.2,8.7)	11.33 (8.1,15.8)	20.03 (15.3,26.2)	31.52 (23.5,42.4)	41.40 (31.2,54.9)	46.68 (32.8,66.5)	63.61 (47.1,85.9)
Northeast	25.26 (19.7,32.4)	9.03 (5.7,14.3)	20.29 (15.1,27.2)	35.94 (27.8,46.5)	54.03 (42.1,69.3)	66.55 (51.8,85.5)	75.85 (58.3,98.8)	94.75 (70.2,128.0)
South	21.45 (16.8,27.5)	7.92 (4.2,14.8)	16.60 (11.6,23.7)	29.05 (22.9,36.8)	45.64 (36.9,56.5)	58.23 (47.0,72.2)	67.39 (53.9,84.3)	93.86 (69.9,126.1)
West	22.09 (17.4,28.0)	8.74 (5.7,13.4)	17.66 (13.3,23.5)	30.76 (23.9,39.5)	47.81 (36.8,62.1)	58.34 (46.3,73.5)	65.39 (50.9,84.1)	78.63 (53.8,115.0)
<b>Coastal Status</b>								
Noncoastal	18.95 (14.4,24.9)	6.67 (3.5,12.6)	14.52 (10.0,21.1)	25.95 (20.0,33.6)	41.75 (31.9,54.7)	52.71 (40.8,68.0)	60.55 (46.8,78.3)	78.78 (59.3,104.6)
Coastal	22.95 (18.9,27.9)	8.59 (6.3,11.7)	17.73 (14.2,22.2)	31.48 (25.4,39.0)	49.69 (40.5,61.0)	62.13 (49.9,77.4)	71.62 (57.1,89.9)	92.02 (70.1,120.9)
<b>Coastal/Inland Region</b>								
Pacific	21.41 (16.7,27.4)	7.79 (5.3,11.5)	17.15 (12.8,23.0)	30.08 (23.6,38.3)	47.56 (38.5,58.7)	57.07 (43.7,74.4)	64.78 (47.7,88.0)	78.00 (46.7,130.4)
Atlantic	24.15 (17.1,34.0)	9.80 (6.6,14.6)	19.47 (13.7,27.7)	33.19 (23.0,47.9)	50.48 (35.3,72.2)	63.05 (45.1,88.2)	71.48 (50.4,101.4)	91.63 (65.4,128.5)
Gulf of Mexico	29.15 (19.3,44.1)	10.20 (5.0,20.8)	21.69 (12.4,37.8)	40.39 (24.3,67.1)	63.32 (40.9,98.1)	82.49 (52.9,128.6)	97.58 (59.7,159.5)	126.36 (78.3,203.9)
Great Lakes	16.85 (12.2,23.3)	5.71 (3.6,9.1)	12.36 (8.4,18.3)	23.38 (16.8,32.6)	36.31 (24.4,54.0)	47.37 (33.0,68.0)	55.98 (40.1,78.1)	78.34 (59.4,103.3)
Inland Northeast	25.07 (15.9,39.4)	7.36 (4.0,13.5)	19.85 (12.0,32.8)	35.86 (22.9,56.2)	54.30 (35.6,82.9)	69.02 (43.9,108.6)	78.14 (50.9,119.9)	95.75 (63.1,145.2)
Inland Midwest	14.16 (10.5,19.1)	5.13 (2.7,9.8)	11.12 (7.2,17.2)	19.30 (14.3,26.1)	29.65 (22.4,39.2)	40.05 (29.7,54.0)	45.24 (33.9,60.3)	59.71 (44.6,79.9)
Inland South	18.72 (13.3,26.3)	7.02 (2.8,17.5)	15.03 (8.7,26.0)	25.43 (18.8,34.3)	39.37 (30.9,50.2)	49.99 (40.0,62.4)	56.86 (45.8,70.6)	74.52 (57.3,96.9)
Inland West	22.82 (15.0,34.7)	9.61 (4.7,19.5)	18.22 (11.8,28.1)	32.02 (20.3,50.4)	48.00 (31.8,72.4)	59.09 (40.4,86.4)	65.89 (46.1,94.2)	79.17 (54.4,115.2)

DRAFT DOCUMENT

Table C-3. Total finfish and shellfish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	8.67 (6.1,12.3)	1.34 (0.8,2.2)	4.35 (2.6,7.3)	11.09 (7.5,16.4)	21.74 (15.7,30.2)	31.59 (22.6,44.2)	40.19 (28.1,57.5)	59.13 (41.7,83.9)
<b>Gender</b>								
Female	7.58 (5.2,11.0)	1.17 (0.7,1.9)	3.71 (2.2,6.1)	9.85 (6.5,15.0)	19.34 (13.5,27.7)	27.86 (19.4,40.1)	34.69 (24.3,49.5)	51.01 (34.1,76.3)
Male	9.81 (6.9,13.9)	1.59 (0.9,2.7)	5.00 (3.1,8.2)	12.32 (8.7,17.5)	23.98 (17.7,32.4)	35.18 (25.3,49.0)	45.73 (31.2,67.0)	66.75 (45.9,97.1)
<b>Age</b>								
1 to <3 yrs	4.75 (2.7,8.3)	0.70 (0.4,1.4)	2.15 (1.2,4.0)	5.26 (3.4,8.2)	11.58 (7.0,19.1)	18.78 (9.9,35.7)	24.71 (12.1,50.5)	38.03 (17.6,82.2)
3 to <6 yrs	6.28 (3.7,10.6)	1.11 (0.5,2.7)	3.95 (1.5,10.2)	8.39 (4.7,15.1)	14.75 (9.8,22.2)	20.61 (14.0,30.3)	23.93 (17.5,32.7)	38.02 (23.6,61.3)
6 to <11 yrs	8.42 (5.1,14.0)	1.36 (0.8,2.5)	4.66 (2.5,8.9)	11.41 (6.7,19.4)	21.39 (12.6,36.2)	29.46 (17.6,49.3)	35.01 (21.2,57.7)	48.43 (28.2,83.1)
11 to <16 yrs	7.93 (5.5,11.4)	1.39 (0.8,2.3)	4.31 (2.6,7.3)	10.81 (7.3,16.1)	19.30 (12.8,29.1)	27.59 (18.4,41.3)	33.63 (22.5,50.3)	47.19 (30.5,73.1)
16 to <18 yrs	9.54 (6.8,13.3)	1.54 (0.9,2.6)	5.27 (3.1,9.0)	12.99 (8.9,18.9)	24.38 (17.7,33.5)	33.98 (23.5,49.1)	39.45 (27.7,56.2)	53.66 (37.2,77.4)
18 to <21 yrs	15.06 (8.7,26.2)	2.29 (1.3,3.9)	7.93 (4.5,13.9)	19.57 (11.2,34.3)	40.93 (19.2,87.1)	57.07 (28.0,116.3)	64.66 (37.7,110.9)	94.01 (50.7,174.4)
<b>Income</b>								
<\$20,000	7.91 (6.2,10.1)	1.28 (0.9,1.9)	3.96 (2.9,5.4)	9.87 (7.2,13.5)	19.93 (14.9,26.6)	29.80 (22.6,39.2)	37.06 (28.4,48.4)	54.98 (38.4,78.7)
>\$20,000	8.72 (6.0,12.7)	1.35 (0.8,2.3)	4.37 (2.5,7.7)	11.18 (7.3,17.2)	21.67 (15.3,30.8)	31.06 (22.3,43.2)	40.35 (27.5,59.2)	60.15 (41.0,88.3)
Income unknown	11.61 (4.6,29.4)	1.52 (0.8,3.0)	5.93 (1.8,19.7)	15.85 (4.4,57.1)	32.59 (10.1,104.8)	41.74 (18.7,93.2)	45.13 (26.9,75.8)	59.71 (34.8,102.5)
<b>Income, finer detail</b>								
<\$20,000	7.91 (6.2,10.1)	1.28 (0.9,1.9)	3.96 (2.9,5.4)	9.87 (7.2,13.5)	19.93 (14.9,26.6)	29.80 (22.6,39.2)	37.06 (28.4,48.4)	54.98 (38.4,78.7)
\$20k-\$45k	8.43 (5.1,13.8)	1.30 (0.8,2.2)	4.01 (2.3,6.9)	10.59 (6.3,17.9)	21.21 (13.0,34.7)	30.33 (19.4,47.4)	39.75 (22.5,70.2)	60.35 (33.1,110.1)
\$45k-\$75k	7.87 (5.5,11.2)	1.18 (0.7,2.0)	4.09 (2.2,7.7)	10.06 (6.9,14.8)	19.44 (13.5,28.0)	27.56 (17.4,43.6)	35.52 (22.4,56.2)	52.71 (30.1,92.4)
\$75k+	9.49 (6.3,14.4)	1.52 (0.8,2.9)	4.85 (2.6,9.0)	12.14 (7.9,18.6)	23.21 (16.2,33.3)	33.58 (23.3,48.5)	43.87 (28.1,68.6)	62.46 (43.3,90.2)
>\$20,000	8.99 (5.4,15.0)	1.94 (0.7,5.6)	5.87 (2.8,12.1)	12.14 (6.9,21.4)	20.70 (12.8,33.5)	31.51 (15.8,62.8)	33.69 (16.2,69.9)	52.51 (23.4,117.8)
Inc Ref/DK	10.24 (4.1,25.5)	1.36 (0.7,2.8)	5.12 (1.9,13.6)	15.04 (3.6,62.1)	27.82 (9.2,84.3)	37.87 (14.6,98.0)	41.74 (21.8,79.8)	47.50 (27.0,83.6)
Inc missing	13.52 (3.6,50.6)	1.58 (0.5,5.3)	7.10 (1.1,44.3)	18.72 (3.2,111.0)	38.96 (7.6,200.9)	43.77 (15.8,121.6)	55.87 (22.1,141.5)	67.81 (26.8,171.5)
<b>Race/Ethnicity</b>								
Mexican American	7.15 (5.2,9.8)	1.26 (0.8,1.9)	3.91 (2.6,5.9)	9.37 (6.9,12.8)	17.52 (12.4,24.8)	24.32 (15.5,38.2)	30.52 (19.1,48.7)	46.09 (29.8,71.3)
Other Hispanic	6.03 (3.2,11.5)	0.85 (0.3,2.3)	2.67 (1.1,6.5)	7.15 (3.0,17.2)	14.74 (6.7,32.2)	23.08 (12.9,41.4)	29.86 (17.9,49.9)	50.44 (28.3,89.8)
White	8.21 (4.7,14.3)	1.22 (0.6,2.4)	3.88 (1.9,7.8)	10.29 (5.6,18.9)	20.80 (12.0,36.0)	30.18 (18.0,50.6)	39.51 (21.8,71.7)	60.37 (32.2,113.1)
Black	9.30 (6.6,13.2)	2.00 (1.3,3.1)	6.23 (4.3,9.0)	12.72 (8.8,18.3)	21.89 (14.8,32.3)	29.57 (20.1,43.4)	35.05 (22.9,53.6)	47.52 (29.4,76.8)
Other race	16.36 (9.2,29.2)	2.81 (1.2,6.4)	10.90 (3.7,32.5)	22.57 (11.7,43.6)	40.64 (23.6,70.0)	55.17 (34.7,87.6)	60.53 (44.3,82.6)	72.44 (46.8,112.2)

Table C-3. Total finfish and shellfish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	6.00 (4.4,8.2)	1.04 (0.5,2.2)	2.96 (1.8,5.0)	7.86 (5.5,11.2)	15.39 (10.8,21.8)	21.31 (12.6,36.0)	27.34 (16.1,46.4)	37.78 (17.4,82.0)
Northeast	10.47 (6.2,17.6)	1.39 (1.0,2.0)	4.55 (3.2,6.4)	11.90 (9.1,15.6)	27.48 (14.9,50.7)	44.91 (16.8,119.8)	56.99 (19.5,166.8)	75.70 (27.8,206.1)
South	8.52 (6.0,12.1)	1.50 (0.9,2.5)	4.51 (2.9,7.1)	11.37 (7.6,17.0)	21.20 (14.9,30.1)	29.01 (21.2,39.7)	35.49 (26.2,48.0)	54.18 (37.3,78.7)
West	10.37 (5.8,18.6)	1.67 (0.8,3.6)	5.52 (2.3,13.3)	13.84 (6.6,28.8)	26.32 (14.4,48.1)	38.80 (20.4,73.8)	47.68 (26.2,86.8)	60.35 (40.7,89.6)
<b>Coastal Status</b>								
Noncoastal	8.16 (5.2,12.9)	1.28 (0.8,2.1)	4.15 (2.3,7.6)	10.65 (6.5,17.5)	20.03 (13.3,30.2)	29.05 (18.6,45.3)	38.02 (21.7,66.7)	57.74 (30.6,108.9)
Coastal	9.50 (7.3,12.4)	1.51 (0.9,2.6)	4.66 (3.1,7.0)	12.09 (8.8,16.5)	24.50 (18.6,32.2)	34.54 (26.3,45.3)	43.09 (33.3,55.8)	60.79 (46.0,80.3)
<b>Coastal/Inland Region</b>								
Pacific	9.78 (6.2,15.4)	1.16 (0.6,2.1)	4.00 (2.3,6.9)	11.67 (6.7,20.2)	26.85 (15.2,47.4)	41.27 (23.0,74.2)	52.71 (28.5,97.4)	61.91 (35.8,107.1)
Atlantic	8.79 (6.3,12.3)	1.65 (1.0,2.7)	5.20 (3.4,8.0)	11.74 (8.0,17.2)	22.30 (16.2,30.7)	29.99 (21.1,42.6)	35.79 (25.0,51.3)	47.37 (30.8,72.9)
Gulf of Mexico	13.69 (4.7,39.6)	2.22 (0.6,7.8)	7.48 (1.9,29.5)	18.04 (5.2,63.0)	33.01 (11.7,93.2)	49.90 (17.9,139.2)	59.95 (25.9,138.5)	93.19 (36.1,240.2)
Great Lakes	6.44 (2.6,16.2)	1.23 (0.5,2.8)	3.18 (2.0,5.1)	8.23 (3.9,17.6)	17.23 (6.1,48.3)	23.51 (6.6,83.2)	29.62 (8.5,103.6)	40.64 (10.5,157.3)
Inland Northeast	10.84 (5.6,21.0)	1.17 (0.6,2.1)	3.81 (1.9,7.6)	10.21 (6.0,17.3)	29.83 (12.5,70.9)	56.99 (11.0,294.1)	67.90 (14.3,322.7)	94.01 (19.5,452.4)
Inland Midwest	5.85 (3.6,9.4)	1.01 (0.4,2.4)	2.90 (1.4,6.1)	7.76 (4.1,14.6)	14.76 (9.4,23.1)	20.93 (14.0,31.4)	26.71 (16.9,42.3)	36.97 (24.1,56.7)
Inland South	7.28 (5.1,10.3)	1.32 (0.8,2.2)	3.87 (2.4,6.1)	10.39 (6.5,16.7)	18.37 (12.9,26.2)	23.88 (16.8,33.9)	29.55 (21.3,40.9)	42.55 (30.4,59.7)
Inland West	10.85 (4.6,25.4)	2.15 (0.7,6.4)	6.93 (1.9,25.7)	14.68 (6.0,35.8)	25.59 (12.2,53.7)	37.42 (15.9,87.9)	43.55 (19.9,95.3)	57.96 (29.4,114.1)

DRAFT DOCUMENT

Table C-4. Total finfish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total Population</b>	11.18 (8.8,14.1)	2.39 (1.4,4.0)	7.29 (5.2,10.2)	15.15 (11.8,19.5)	26.57 (20.9,33.8)	35.86 (28.2,45.6)	43.35 (34.1,55.2)	59.25 (46.7,75.2)
<b>Gender</b>								
Female	10.08 (7.9,12.9)	2.14 (1.3,3.6)	6.68 (4.8,9.4)	13.86 (10.7,17.9)	23.97 (18.6,30.8)	31.84 (24.6,41.1)	38.17 (29.4,49.6)	52.78 (40.1,69.4)
Male	12.50 (9.8,15.9)	2.74 (1.6,4.8)	8.15 (5.7,11.6)	16.80 (12.9,21.8)	29.63 (23.3,37.7)	40.55 (31.8,51.6)	48.38 (38.1,61.5)	68.72 (54.1,87.3)
<b>Age</b>								
1 to <3 yrs	3.09 (2.0,4.8)	0.43 (0.2,0.8)	1.32 (0.7,2.4)	3.50 (2.2,5.6)	7.82 (4.9,12.4)	12.20 (7.5,19.9)	16.42 (9.3,28.9)	24.47 (14.9,40.1)
3 to <6 yrs	4.01 (2.4,6.8)	0.69 (0.2,2.0)	2.25 (0.9,5.7)	5.07 (2.7,9.4)	9.43 (6.2,14.3)	13.56 (9.3,19.9)	17.25 (11.6,25.6)	26.87 (17.6,41.0)
6 to <11 yrs	6.01 (3.5,10.2)	0.96 (0.5,2.0)	3.15 (1.6,6.1)	7.91 (4.5,13.9)	15.26 (8.9,26.2)	21.61 (12.4,37.8)	26.14 (14.8,46.2)	37.04 (21.3,64.5)
11 to <16 yrs	5.15 (3.3,7.9)	0.86 (0.5,1.5)	2.67 (1.5,4.8)	6.90 (4.1,11.7)	12.60 (8.2,19.3)	18.06 (11.9,27.4)	22.82 (15.0,34.7)	31.75 (19.4,52.0)
16 to <18 yrs	6.04 (4.2,8.7)	0.81 (0.4,1.6)	2.88 (1.7,4.8)	7.76 (5.1,11.7)	15.01 (10.0,22.5)	22.53 (15.5,32.8)	28.20 (18.9,42.1)	41.37 (26.1,65.6)
18 to <21 yrs	9.59 (5.6,16.4)	1.32 (0.7,2.5)	4.35 (2.6,7.3)	11.07 (6.7,18.1)	23.27 (13.2,41.0)	38.86 (19.6,77.2)	50.08 (23.0,109.2)	83.28 (30.1,230.5)
21 to <35 yrs	11.86 (8.2,17.2)	3.13 (1.2,7.9)	7.80 (4.5,13.4)	15.74 (10.5,23.6)	27.51 (19.6,38.7)	36.73 (27.6,49.0)	45.27 (33.5,61.1)	61.69 (46.4,82.1)
35 to <50 yrs	12.17 (9.4,15.8)	4.21 (3.0,5.8)	9.04 (7.0,11.7)	16.22 (12.1,21.8)	26.57 (19.6,35.9)	35.48 (26.6,47.3)	41.97 (31.2,56.4)	55.74 (40.8,76.2)
50 to <65 yrs	17.70 (12.4,25.2)	7.16 (3.8,13.5)	13.66 (9.1,20.5)	23.96 (16.9,34.0)	37.45 (27.0,52.0)	47.14 (34.5,64.4)	54.81 (39.8,75.5)	70.19 (51.2,96.2)
65+ yrs	12.33 (8.1,18.8)	4.42 (2.9,6.6)	9.23 (6.1,13.9)	16.68 (10.8,25.7)	26.94 (17.2,42.2)	34.85 (21.6,56.1)	41.21 (25.8,65.9)	54.23 (31.7,92.6)
<b>Income</b>								
<\$20,000	9.39 (7.4,11.9)	1.65 (1.0,2.6)	5.51 (4.0,7.6)	12.35 (9.5,16.0)	22.73 (17.8,29.1)	31.29 (24.4,40.1)	38.51 (30.1,49.2)	55.76 (42.6,73.0)
>\$20,000	11.48 (9.0,14.6)	2.58 (1.6,4.3)	7.65 (5.5,10.7)	15.64 (12.1,20.2)	27.07 (21.2,34.6)	36.45 (28.5,46.6)	43.77 (34.2,56.1)	59.25 (46.0,76.4)
Income unknown	12.36 (6.1,25.1)	2.60 (0.7,9.4)	8.10 (2.9,22.9)	17.15 (7.6,38.5)	29.77 (15.8,56.2)	40.33 (21.8,74.6)	49.31 (25.6,95.1)	70.18 (34.7,142.1)
<b>Income, finer detail</b>								
<\$20,000	9.39 (7.4,11.9)	1.65 (1.0,2.6)	5.51 (4.0,7.6)	12.35 (9.5,16.0)	22.73 (17.8,29.1)	31.29 (24.4,40.1)	38.51 (30.1,49.2)	55.76 (42.6,73.0)
\$20k-\$45k	10.17 (7.9,13.1)	2.14 (1.4,3.4)	6.65 (4.8,9.2)	13.59 (10.2,18.0)	23.65 (17.5,32.0)	32.24 (23.7,43.8)	39.29 (29.1,53.1)	56.64 (43.1,74.4)
\$45k-\$75k	11.09 (8.3,14.9)	2.35 (1.4,3.8)	7.16 (5.0,10.3)	14.94 (10.9,20.5)	26.54 (19.7,35.8)	35.89 (26.7,48.3)	43.23 (31.9,58.6)	58.52 (42.8,79.9)
\$75k+	12.74 (9.9,16.4)	3.21 (1.7,5.9)	8.90 (6.2,12.8)	17.64 (13.6,23.0)	29.57 (23.2,37.7)	39.12 (30.5,50.1)	45.97 (35.5,59.5)	61.44 (47.2,80.0)
>\$20,000	12.53 (7.2,21.7)	3.37 (1.3,8.4)	9.06 (4.1,19.8)	16.80 (10.0,28.2)	29.18 (17.1,49.9)	39.11 (22.3,68.7)	44.93 (27.2,74.1)	63.13 (36.4,109.6)
Inc Ref/DK	11.50 (6.3,21.2)	2.56 (0.8,7.9)	7.97 (3.1,20.6)	16.12 (8.4,31.0)	28.00 (15.4,50.9)	36.18 (21.8,60.1)	41.52 (27.0,63.9)	49.83 (31.7,78.4)
Inc missing	14.01 (4.5,43.8)	2.81 (0.4,19.9)	8.17 (1.9,34.3)	18.10 (5.6,58.7)	33.52 (11.9,94.7)	55.65 (14.4,215.7)	69.06 (17.8,268.3)	75.15 (34.5,163.5)
<b>Race/Ethnicity</b>								
Mexican American	9.53 (6.9,13.1)	1.69 (1.0,3.0)	5.81 (3.5,9.8)	13.01 (9.1,18.7)	23.01 (17.0,31.2)	31.80 (23.7,42.7)	38.91 (28.7,52.7)	51.59 (36.6,72.7)
Other Hispanic	9.49 (6.8,13.2)	1.62 (0.9,2.9)	5.34 (3.4,8.3)	12.19 (8.3,17.9)	23.59 (16.6,33.4)	34.16 (22.4,52.0)	41.72 (26.8,64.9)	61.80 (34.4,111.1)
White	10.51 (8.2,13.5)	2.38 (1.3,4.2)	7.10 (5.1,9.9)	14.26 (11.0,18.6)	24.53 (18.7,32.2)	33.01 (25.1,43.3)	39.65 (30.2,52.0)	54.57 (40.9,72.8)
Black	12.25 (9.5,15.8)	2.93 (1.9,4.4)	8.41 (6.0,11.8)	17.14 (13.1,22.4)	28.16 (20.8,38.0)	37.41 (27.8,50.4)	44.62 (33.5,59.5)	58.89 (42.2,82.2)
Other race	19.80 (14.3,27.4)	5.04 (2.2,11.5)	13.93 (8.5,22.8)	28.16 (19.1,41.6)	45.03 (34.9,58.1)	58.28 (45.8,74.1)	68.72 (52.5,90.0)	92.11 (67.8,125.1)

Table C-4. Total finfish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	8.36 (6.1,11.4)	1.67 (1.0,2.9)	5.51 (3.5,8.6)	11.61 (8.2,16.4)	19.71 (14.0,27.7)	26.30 (18.2,38.1)	31.20 (20.8,46.7)	42.44 (26.8,67.2)
Northeast	12.73 (9.2,17.5)	2.64 (1.5,4.5)	8.23 (5.7,11.9)	17.69 (12.7,24.6)	30.38 (22.2,41.6)	40.98 (29.6,56.8)	48.60 (35.3,67.0)	65.65 (47.5,90.8)
South	11.55 (9.2,14.5)	2.50 (1.5,4.0)	7.46 (5.4,10.3)	15.41 (12.0,19.7)	27.20 (21.6,34.3)	37.09 (29.6,46.5)	45.27 (35.7,57.3)	63.68 (49.6,81.8)
West	12.53 (9.5,16.6)	3.02 (1.6,5.6)	8.76 (6.2,12.5)	17.29 (12.9,23.2)	29.52 (22.1,39.4)	39.05 (29.3,52.1)	46.24 (34.4,62.1)	59.46 (42.6,83.1)
<b>Coastal Status</b>								
Noncoastal	10.72 (7.7,15.0)	2.26 (1.2,4.2)	7.10 (4.5,11.3)	14.43 (10.6,19.7)	25.20 (18.5,34.4)	34.22 (24.8,47.3)	41.42 (29.5,58.1)	57.98 (39.8,84.6)
Coastal	11.89 (8.9,15.9)	2.61 (1.7,3.9)	7.66 (5.6,10.5)	16.23 (11.9,22.2)	28.53 (21.0,38.8)	38.23 (27.8,52.7)	45.71 (32.8,63.7)	62.09 (43.0,89.6)
<b>Coastal/Inland Region</b>								
Pacific	11.70 (8.0,17.1)	2.47 (1.5,4.0)	7.96 (5.5,11.6)	16.10 (10.6,24.5)	28.05 (19.1,41.2)	37.77 (26.3,54.2)	44.88 (30.8,65.3)	58.23 (36.6,92.7)
Atlantic	12.27 (7.7,19.6)	3.10 (1.9,5.1)	8.13 (4.6,14.4)	16.82 (10.0,28.3)	28.70 (17.5,47.2)	37.83 (23.4,61.2)	45.21 (28.8,70.9)	58.89 (35.4,97.9)
Gulf of Mexico	14.21 (9.4,21.5)	2.89 (1.2,7.2)	8.38 (4.0,17.8)	18.55 (10.4,33.2)	35.17 (21.4,57.8)	48.61 (30.3,78.0)	59.51 (37.3,94.9)	83.32 (52.5,132.2)
Great Lakes	8.95 (5.7,14.2)	1.61 (0.9,3.0)	5.07 (2.8,9.2)	12.29 (7.6,19.8)	22.35 (14.1,35.5)	30.23 (18.7,48.9)	35.50 (20.6,61.2)	45.78 (21.5,97.6)
Inland Northeast	12.59 (7.4,21.4)	2.12 (1.2,3.8)	7.86 (4.6,13.5)	17.34 (10.4,28.8)	30.38 (17.8,51.9)	42.65 (22.4,81.3)	51.55 (26.3,100.9)	70.18 (35.4,139.0)
Inland Midwest	8.18 (5.6,11.9)	1.70 (0.9,3.4)	5.58 (3.1,10.0)	11.48 (7.4,17.7)	19.00 (13.4,26.9)	25.15 (17.9,35.3)	29.92 (21.1,42.5)	40.05 (27.5,58.3)
Inland South	10.77 (8.0,14.6)	2.24 (1.3,3.9)	7.19 (4.5,11.4)	14.46 (10.9,19.3)	25.21 (19.4,32.8)	34.22 (26.0,45.0)	41.34 (31.1,54.9)	58.28 (41.2,82.4)
Inland West	13.35 (7.9,22.4)	3.65 (1.3,10.6)	9.56 (5.2,17.4)	18.22 (11.2,29.7)	31.02 (18.2,52.8)	40.27 (24.2,66.9)	48.24 (28.3,82.2)	61.80 (39.7,96.2)

DRAFT DOCUMENT

Table C-5. Total finfish usual fish consumption rate estimates, adults ≥21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	13.38 (10.6,16.8)	4.33 (2.8,6.8)	9.69 (7.2,13.0)	18.01 (14.1,23.0)	29.82 (23.6,37.7)	39.25 (30.8,50.0)	46.36 (36.2,59.4)	62.16 (47.9,80.7)
<b>Gender</b>								
Female	11.96 (9.4,15.2)	3.89 (2.4,6.4)	8.71 (6.5,11.7)	16.36 (12.7,21.1)	26.82 (20.8,34.5)	34.68 (26.6,45.2)	40.98 (31.3,53.6)	55.53 (42.2,73.1)
Male	15.19 (12.0,19.2)	5.10 (3.3,7.9)	11.11 (8.2,15.0)	20.04 (15.5,25.9)	33.90 (26.8,42.9)	44.68 (35.2,56.7)	51.56 (39.9,66.6)	70.67 (55.5,90.1)
<b>Age</b>								
21 to <35 yrs	11.86 (8.2,17.2)	3.13 (1.2,7.9)	7.80 (4.5,13.4)	15.74 (10.5,23.6)	27.51 (19.6,38.7)	36.73 (27.6,49.0)	45.27 (33.5,61.1)	61.69 (46.4,82.1)
35 to <50 yrs	12.17 (9.4,15.8)	4.21 (3.0,5.8)	9.04 (7.0,11.7)	16.22 (12.1,21.8)	26.57 (19.6,35.9)	35.48 (26.6,47.3)	41.97 (31.2,56.4)	55.74 (40.8,76.2)
50 to <65 yrs	17.70 (12.4,25.2)	7.16 (3.8,13.5)	13.66 (9.1,20.5)	23.96 (16.9,34.0)	37.45 (27.0,52.0)	47.14 (34.5,64.4)	54.81 (39.8,75.5)	70.19 (51.2,96.2)
65+ yrs	12.33 (8.1,18.8)	4.42 (2.9,6.6)	9.23 (6.1,13.9)	16.68 (10.8,25.7)	26.94 (17.2,42.2)	34.85 (21.6,56.1)	41.21 (25.8,65.9)	54.23 (31.7,92.6)
<b>WCA (13-49 years)</b>	9.84 (7.7,12.6)	2.30 (1.3,3.9)	6.62 (4.7,9.3)	13.39 (10.4,17.3)	23.05 (18.0,29.4)	30.80 (24.0,39.6)	37.14 (28.7,48.1)	50.93 (38.7,67.1)
<b>Income</b>								
<\$20,000	11.42 (9.0,14.4)	2.80 (1.7,4.7)	7.54 (5.6,10.1)	15.15 (11.9,19.3)	26.02 (20.4,33.3)	35.23 (27.4,45.3)	42.94 (33.1,55.7)	59.92 (44.6,80.4)
>\$20,000	13.69 (10.8,17.3)	4.65 (3.0,7.1)	10.05 (7.5,13.4)	18.42 (14.3,23.6)	30.29 (23.8,38.6)	39.66 (30.9,50.9)	46.56 (36.0,60.3)	61.80 (46.5,82.1)
Income unknown	14.48 (7.4,28.3)	4.35 (1.2,16.4)	10.30 (4.5,23.8)	18.64 (10.4,33.3)	32.57 (18.6,57.0)	45.66 (22.5,92.4)	55.65 (25.0,123.9)	71.34 (37.6,135.2)
<b>Income, finer detail</b>								
<\$20,000	11.42 (9.0,14.4)	2.80 (1.7,4.7)	7.54 (5.6,10.1)	15.15 (11.9,19.3)	26.02 (20.4,33.3)	35.23 (27.4,45.3)	42.94 (33.1,55.7)	59.92 (44.6,80.4)
\$20k-\$45k	11.94 (9.1,15.6)	3.80 (2.5,5.9)	8.57 (6.4,11.4)	15.89 (11.8,21.4)	26.49 (19.5,35.9)	35.55 (26.3,48.0)	42.79 (31.7,57.8)	58.28 (42.2,80.5)
\$45k-\$75k	13.16 (9.9,17.6)	4.21 (2.7,6.6)	9.39 (6.7,13.2)	17.63 (13.0,23.9)	29.83 (22.3,39.9)	39.51 (29.2,53.4)	46.49 (34.4,62.9)	61.54 (44.7,84.8)
\$75k+	15.46 (12.1,19.7)	5.90 (3.7,9.3)	11.70 (8.7,15.7)	20.69 (16.1,26.6)	33.09 (25.9,42.3)	42.90 (33.5,54.9)	49.34 (38.0,64.0)	64.88 (49.1,85.8)
>\$20,000	14.50 (8.8,23.9)	5.17 (2.4,10.9)	11.17 (5.9,21.2)	18.67 (11.9,29.3)	31.63 (19.4,51.4)	41.56 (25.4,68.1)	47.52 (29.7,76.0)	64.77 (39.0,107.6)
Inc Ref/DK	13.43 (7.6,23.9)	4.24 (1.2,14.6)	10.05 (4.6,22.1)	18.27 (10.3,32.5)	30.90 (17.7,53.8)	39.51 (23.3,66.9)	45.66 (28.1,74.3)	52.65 (33.0,83.9)
Inc missing	16.83 (5.4,52.3)	4.42 (0.8,25.9)	11.38 (3.0,43.8)	19.41 (7.6,49.3)	40.63 (12.9,127.5)	62.28 (15.1,256.3)	71.34 (19.6,259.9)	79.19 (33.8,185.7)
<b>Race/Ethnicity</b>								
Mexican American	12.66 (8.9,18.0)	3.72 (1.6,8.5)	9.22 (5.5,15.3)	17.31 (11.8,25.5)	28.40 (20.4,39.6)	37.92 (27.4,52.5)	44.51 (32.4,61.2)	58.73 (41.6,82.9)
Other Hispanic	12.38 (8.4,18.2)	3.67 (1.9,7.0)	8.02 (5.2,12.3)	15.96 (11.1,23.0)	28.46 (19.0,42.7)	39.06 (24.8,61.5)	48.60 (27.9,84.6)	68.53 (35.5,132.3)
White	12.23 (9.5,15.7)	4.16 (2.7,6.5)	9.05 (6.8,12.0)	16.50 (12.6,21.6)	27.08 (20.7,35.5)	35.37 (26.7,46.8)	42.21 (32.0,55.8)	55.55 (40.7,75.8)
Black	15.30 (12.0,19.6)	5.53 (3.1,9.9)	11.77 (8.4,16.5)	21.04 (16.2,27.3)	32.72 (24.7,43.3)	42.43 (32.2,55.9)	49.08 (36.5,66.0)	63.98 (45.5,89.9)
Other race	24.48 (18.0,33.3)	9.28 (5.1,16.8)	19.45 (12.2,30.9)	33.79 (24.1,47.4)	51.47 (39.6,66.9)	64.68 (49.3,84.8)	76.63 (57.7,101.8)	101.62 (72.5,142.4)

Table C-5. Total finfish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	10.24 (7.4,14.1)	3.46 (1.9,6.4)	7.53 (5.0,11.2)	13.90 (10.0,19.4)	22.52 (15.9,31.8)	29.42 (20.3,42.6)	34.34 (22.8,51.7)	45.94 (29.2,72.3)
Northeast	14.64 (10.9,19.6)	4.68 (2.8,7.8)	10.83 (7.7,15.2)	20.15 (14.9,27.2)	32.43 (24.0,43.7)	42.51 (32.0,56.4)	49.43 (36.7,66.5)	61.50 (42.6,88.7)
South	13.84 (11.1,17.2)	4.43 (2.9,6.9)	9.82 (7.4,13.0)	18.34 (14.6,23.1)	30.77 (24.5,38.6)	41.57 (32.9,52.5)	49.09 (38.6,62.4)	68.72 (52.4,90.1)
West	15.19 (11.4,20.2)	5.50 (3.5,8.7)	11.42 (8.3,15.7)	20.56 (15.2,27.7)	33.37 (24.9,44.7)	43.13 (32.0,58.1)	49.58 (36.7,67.0)	63.78 (46.0,88.5)
<b>Coastal Status</b>								
Noncoastal	12.83 (9.2,17.9)	4.25 (2.2,8.4)	9.41 (6.2,14.2)	17.22 (12.6,23.6)	28.30 (20.8,38.5)	37.18 (27.2,50.8)	44.49 (31.9,62.1)	59.59 (42.2,84.0)
Coastal	14.24 (10.4,19.5)	4.46 (2.9,6.8)	10.11 (7.1,14.4)	19.35 (14.1,26.6)	32.10 (23.5,43.9)	42.40 (31.3,57.4)	49.31 (34.7,70.2)	64.60 (41.5,100.7)
<b>Coastal/Inland Region</b>								
Pacific	14.23 (9.9,20.4)	4.81 (3.1,7.4)	10.46 (7.0,15.5)	19.46 (13.5,28.1)	31.64 (22.0,45.5)	41.98 (29.8,59.1)	47.91 (32.0,71.7)	61.39 (37.3,101.0)
Atlantic	14.53 (8.7,24.2)	4.92 (2.5,9.8)	10.63 (5.9,19.1)	19.71 (11.5,33.8)	32.33 (20.2,51.6)	41.52 (26.0,66.2)	48.72 (30.7,77.2)	62.38 (37.4,104.2)
Gulf of Mexico	16.33 (10.8,24.7)	4.15 (2.3,7.5)	10.35 (5.6,19.2)	21.27 (12.8,35.3)	39.99 (22.2,72.0)	51.16 (29.5,88.6)	62.44 (36.5,106.7)	87.20 (53.2,142.8)
Great Lakes	11.35 (7.3,17.7)	3.28 (1.7,6.2)	7.81 (4.7,13.0)	16.14 (11.0,23.6)	26.25 (17.0,40.5)	33.30 (19.7,56.4)	38.84 (22.1,68.2)	50.24 (24.6,102.6)
Inland Northeast	14.17 (8.7,23.0)	4.16 (1.9,9.3)	10.49 (6.0,18.2)	19.59 (12.3,31.3)	31.54 (20.1,49.6)	42.49 (25.6,70.6)	49.34 (30.1,80.8)	64.36 (39.1,105.9)
Inland Midwest	9.93 (6.8,14.5)	3.51 (1.6,7.8)	7.46 (4.4,12.5)	13.37 (9.1,19.7)	21.42 (15.1,30.4)	27.66 (19.5,39.3)	32.61 (22.7,46.9)	44.71 (31.2,64.1)
Inland South	13.17 (9.6,18.1)	4.36 (2.1,9.2)	9.65 (6.3,14.8)	17.43 (13.2,23.0)	28.90 (22.0,37.9)	38.14 (29.2,49.9)	45.41 (34.1,60.5)	62.91 (43.9,90.0)
Inland West	16.22 (9.4,28.1)	6.37 (2.7,14.8)	12.46 (7.0,22.0)	21.80 (12.8,37.1)	35.00 (19.9,61.5)	45.08 (26.0,78.3)	51.03 (31.2,83.6)	66.40 (40.9,107.8)

DRAFT Do not

Table C-6. Total finfish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	5.69 (4.0,8.1)	0.82 (0.5,1.4)	2.64 (1.6,4.4)	6.96 (4.7,10.4)	13.83 (10.0,19.1)	20.83 (14.9,29.1)	26.63 (19.0,37.4)	43.57 (29.0,65.5)
<b>Gender</b>								
Female	4.93 (3.5,6.8)	0.72 (0.4,1.2)	2.26 (1.4,3.7)	6.09 (4.2,8.9)	12.52 (8.9,17.6)	18.39 (13.2,25.5)	23.43 (17.0,32.3)	35.84 (26.1,49.2)
Male	6.49 (4.3,9.7)	0.96 (0.5,1.7)	3.12 (1.7,5.6)	7.74 (5.2,11.6)	15.50 (10.8,22.2)	23.42 (16.2,33.9)	29.57 (20.1,43.6)	54.48 (28.7,103.4)
<b>Age</b>								
1 to <3 yrs	3.09 (2.0,4.8)	0.43 (0.2,0.8)	1.32 (0.7,2.4)	3.50 (2.2,5.6)	7.82 (4.9,12.4)	12.20 (7.5,19.9)	16.42 (9.3,28.9)	24.47 (14.9,40.1)
3 to <6 yrs	4.01 (2.4,6.8)	0.69 (0.2,2.0)	2.25 (0.9,5.7)	5.07 (2.7,9.4)	9.43 (6.2,14.3)	13.56 (9.3,19.9)	17.25 (11.6,25.6)	26.87 (17.6,41.0)
6 to <11 yrs	6.01 (3.5,10.2)	0.96 (0.5,2.0)	3.15 (1.6,6.1)	7.91 (4.5,13.9)	15.26 (8.9,26.2)	21.61 (12.4,37.8)	26.14 (14.8,46.2)	37.04 (21.3,64.5)
11 to <16 yrs	5.15 (3.3,7.9)	0.86 (0.5,1.5)	2.67 (1.5,4.8)	6.90 (4.1,11.7)	12.60 (8.2,19.3)	18.06 (11.9,27.4)	22.82 (15.0,34.7)	31.75 (19.4,52.0)
16 to <18 yrs	6.04 (4.2,8.7)	0.81 (0.4,1.6)	2.88 (1.7,4.8)	7.76 (5.1,11.7)	15.01 (10.0,22.5)	22.53 (15.5,32.8)	28.20 (18.9,42.1)	41.37 (26.1,65.6)
18 to <21 yrs	9.59 (5.6,16.4)	1.32 (0.7,2.5)	4.35 (2.6,7.3)	11.07 (6.7,18.1)	23.27 (13.2,41.0)	38.86 (19.6,77.2)	50.08 (23.0,109.2)	83.28 (30.1,230.5)
<b>Income</b>								
<\$20,000	5.20 (3.7,7.2)	0.82 (0.5,1.4)	2.54 (1.6,3.9)	6.41 (4.4,9.3)	12.68 (8.2,19.6)	18.71 (12.2,28.7)	24.36 (16.4,36.2)	38.63 (28.1,53.0)
>\$20,000	5.73 (3.9,8.4)	0.82 (0.5,1.4)	2.62 (1.6,4.4)	6.98 (4.5,10.8)	13.84 (9.7,19.7)	20.83 (14.6,29.7)	26.50 (18.5,37.9)	44.84 (27.8,72.3)
Income unknown	7.51 (2.7,20.7)	1.00 (0.4,2.4)	3.61 (1.0,13.4)	8.93 (2.9,27.4)	20.72 (5.7,75.6)	28.93 (10.2,82.1)	35.82 (14.7,87.5)	53.33 (22.2,128.4)
<b>Income, finer detail</b>								
<\$20,000	5.20 (3.7,7.2)	0.82 (0.5,1.4)	2.54 (1.6,3.9)	6.41 (4.4,9.3)	12.68 (8.2,19.6)	18.71 (12.2,28.7)	24.36 (16.4,36.2)	38.63 (28.1,53.0)
\$20k-\$45k	5.74 (3.8,8.6)	0.78 (0.5,1.2)	2.46 (1.6,3.8)	6.59 (4.5,9.6)	13.84 (9.7,19.7)	20.75 (14.8,29.0)	27.23 (18.8,39.5)	47.72 (25.7,88.5)
\$45k-\$75k	5.31 (3.5,8.1)	0.71 (0.4,1.2)	2.42 (1.3,4.4)	6.58 (4.1,10.6)	12.53 (7.9,19.8)	19.69 (12.5,31.0)	24.16 (13.7,42.6)	44.30 (23.5,83.4)
\$75k+	5.95 (3.8,9.3)	0.90 (0.4,1.9)	2.86 (1.5,5.5)	7.38 (4.4,12.3)	14.59 (9.7,22.0)	21.58 (14.3,32.5)	28.04 (17.9,44.0)	43.57 (27.6,68.8)
>\$20,000	6.17 (3.2,11.7)	1.22 (0.5,3.3)	3.80 (1.7,8.7)	8.26 (3.7,18.4)	14.15 (7.3,27.4)	22.10 (10.1,48.3)	24.42 (11.1,53.9)	38.13 (17.2,84.8)
Inc Ref/DK	6.25 (2.2,17.8)	0.89 (0.4,1.9)	3.20 (1.0,10.6)	7.60 (2.3,25.0)	16.53 (4.8,57.3)	24.25 (7.5,77.9)	27.81 (11.2,68.8)	35.41 (18.9,66.3)
Inc missing	9.26 (2.4,35.6)	1.14 (0.2,5.3)	4.54 (0.7,30.3)	11.29 (2.2,56.8)	26.15 (4.8,141.1)	35.87 (9.5,136.0)	45.92 (13.7,153.4)	54.36 (19.4,152.5)
<b>Race/Ethnicity</b>								
Mexican American	4.71 (3.3,6.7)	0.78 (0.5,1.3)	2.40 (1.5,3.8)	6.02 (4.1,8.8)	11.40 (7.5,17.3)	16.78 (11.1,25.3)	21.50 (14.4,32.0)	33.34 (22.4,49.5)
Other Hispanic	4.25 (2.1,8.8)	0.56 (0.2,1.6)	1.85 (0.8,4.4)	5.06 (2.3,11.4)	10.51 (4.7,23.7)	15.65 (6.9,35.3)	20.43 (9.7,43.0)	38.57 (22.3,66.7)
White	5.47 (3.0,9.9)	0.75 (0.4,1.5)	2.34 (1.2,4.6)	6.38 (3.5,11.6)	12.99 (7.9,21.3)	20.18 (11.4,35.6)	26.07 (14.8,45.8)	45.93 (20.5,102.8)
Black	6.11 (3.9,9.6)	1.24 (0.8,2.0)	3.78 (2.5,5.7)	8.14 (5.2,12.8)	14.48 (8.6,24.5)	19.82 (10.9,35.9)	24.61 (13.8,43.8)	34.12 (17.0,68.4)
Other race	9.79 (6.4,15.0)	1.52 (0.7,3.4)	5.35 (2.6,11.1)	13.20 (7.6,22.9)	24.79 (16.8,36.6)	34.30 (24.0,48.9)	41.37 (28.3,60.6)	56.31 (37.3,85.1)

Table C-6. Total finfish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	3.59 (2.4,5.5)	0.63 (0.3,1.3)	1.73 (1.0,2.9)	4.68 (3.2,6.9)	9.06 (5.9,14.0)	12.87 (7.2,22.9)	15.84 (7.7,32.7)	23.10 (9.1,58.8)
Northeast	7.75 (3.2,19.1)	0.96 (0.5,1.8)	3.05 (1.8,5.2)	7.65 (4.8,12.1)	18.39 (8.3,40.7)	34.24 (9.1,129.4)	44.56 (11.4,174.4)	74.65 (14.5,384.7)
South	5.72 (3.9,8.4)	0.87 (0.5,1.4)	2.76 (1.7,4.4)	7.21 (4.7,11.1)	14.06 (9.4,20.9)	20.39 (13.8,30.1)	25.71 (17.5,37.8)	39.63 (26.7,58.9)
West	6.47 (3.9,10.7)	1.04 (0.5,2.3)	3.37 (1.5,7.7)	8.61 (4.5,16.4)	16.11 (9.7,26.7)	23.32 (14.0,38.9)	28.20 (17.0,46.7)	41.40 (26.1,65.7)
<b>Coastal Status</b>								
Noncoastal	5.52 (3.5,8.6)	0.80 (0.5,1.3)	2.53 (1.5,4.3)	6.66 (4.4,10.2)	12.99 (8.9,19.0)	20.03 (12.8,31.3)	26.07 (15.9,42.7)	44.91 (21.9,92.1)
Coastal	5.97 (4.2,8.4)	0.87 (0.4,1.7)	2.83 (1.6,5.1)	7.40 (4.8,11.3)	14.93 (10.4,21.4)	21.97 (15.6,30.9)	27.37 (19.1,39.3)	41.02 (27.1,62.0)
<b>Coastal/Inland Region</b>								
Pacific	5.13 (3.3,7.9)	0.74 (0.4,1.5)	2.54 (1.3,4.9)	6.61 (4.0,10.8)	13.43 (8.2,22.1)	19.60 (11.3,33.9)	23.61 (11.8,47.3)	32.16 (12.5,82.6)
Atlantic	6.15 (3.6,10.5)	1.04 (0.5,2.2)	3.35 (1.6,7.1)	7.91 (4.3,14.6)	15.34 (9.0,26.1)	21.30 (13.0,34.8)	26.40 (16.2,43.0)	36.91 (21.8,62.6)
Gulf of Mexico	9.54 (3.7,24.9)	1.23 (0.4,3.5)	4.56 (1.4,15.2)	12.04 (3.7,39.7)	23.94 (8.3,69.1)	34.50 (14.3,83.5)	43.57 (19.9,95.5)	74.30 (31.8,173.4)
Great Lakes	3.62 (1.3,10.2)	0.62 (0.2,1.6)	1.77 (0.9,3.6)	4.25 (1.6,11.3)	8.72 (2.3,32.5)	13.13 (3.3,52.1)	16.34 (3.9,69.1)	25.16 (5.7,110.4)
Inland Northeast	8.41 (2.7,26.5)	0.80 (0.5,1.3)	2.59 (1.5,4.5)	6.79 (4.2,11.1)	20.63 (6.8,62.2)	43.15 (6.2,301.2)	58.95 (7.1,488.0)	85.32 (10.8,675.7)
Inland Midwest	3.57 (2.5,5.0)	0.63 (0.3,1.4)	1.73 (0.9,3.3)	4.75 (2.8,8.1)	9.14 (6.5,12.8)	12.69 (9.2,17.4)	15.66 (11.0,22.3)	22.40 (13.7,36.5)
Inland South	4.65 (2.9,7.4)	0.76 (0.5,1.3)	2.36 (1.4,3.9)	6.22 (3.9,10.0)	11.43 (6.8,19.2)	16.49 (10.0,27.2)	20.64 (12.4,34.3)	28.93 (16.8,50.0)
Inland West	7.59 (3.2,17.8)	1.38 (0.4,4.3)	4.34 (1.2,15.4)	10.02 (4.0,24.9)	18.67 (8.3,41.7)	25.48 (12.0,54.2)	32.45 (14.7,71.8)	46.84 (22.3,98.3)

DRAFT DOCUMENT

Table C-7. Total shellfish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	5.25 (3.5,8.0)	0.61 (0.3,1.2)	2.13 (1.2,3.9)	6.02 (3.6,10.0)	13.60 (8.9,20.9)	21.23 (14.6,30.8)	27.62 (19.5,39.2)	42.04 (29.4,60.1)
<b>Gender</b>								
Female	4.40 (2.9,6.7)	0.52 (0.2,1.1)	1.81 (1.0,3.4)	5.16 (3.2,8.4)	11.45 (7.6,17.3)	17.38 (11.8,25.6)	22.31 (15.4,32.2)	33.74 (23.0,49.4)
Male	6.27 (4.0,9.7)	0.76 (0.4,1.5)	2.54 (1.3,4.9)	7.28 (4.3,12.5)	16.48 (10.6,25.6)	25.81 (17.9,37.3)	33.01 (23.1,47.2)	49.46 (34.6,70.7)
<b>Age</b>								
1 to <3 yrs	1.01 (0.5,2.0)	0.10 (0.0,0.3)	0.30 (0.1,0.7)	0.92 (0.4,2.0)	2.35 (1.1,4.9)	4.17 (1.9,9.0)	6.02 (2.8,13.1)	12.49 (5.2,30.3)
3 to <6 yrs	1.87 (1.0,3.4)	0.22 (0.1,0.5)	0.74 (0.3,1.6)	2.15 (1.1,4.2)	4.76 (2.5,9.1)	7.39 (4.0,13.7)	10.02 (5.8,17.4)	16.78 (9.6,29.2)
6 to <11 yrs	1.48 (0.7,3.3)	0.13 (0.0,0.5)	0.44 (0.1,1.4)	1.41 (0.5,3.7)	3.61 (1.6,8.2)	6.25 (3.0,13.1)	9.66 (4.9,19.0)	15.89 (6.7,37.6)
11 to <16 yrs	2.19 (0.5,8.9)	0.22 (0.1,0.5)	0.69 (0.2,1.9)	2.18 (0.7,7.0)	5.30 (1.2,24.1)	9.29 (2.0,43.1)	12.25 (2.3,65.8)	19.29 (2.4,157.1)
16 to <18 yrs	3.23 (1.8,5.7)	0.42 (0.2,1.0)	1.22 (0.6,2.6)	3.79 (1.9,7.4)	7.73 (4.0,15.0)	12.55 (6.9,22.8)	17.83 (10.0,31.8)	30.00 (16.2,55.6)
18 to <21 yrs	5.64 (2.6,12.2)	0.61 (0.2,1.6)	1.93 (0.9,4.1)	6.15 (2.8,13.7)	14.08 (6.8,29.4)	24.84 (9.6,64.5)	32.51 (12.5,84.4)	51.79 (20.7,129.5)
21 to <35 yrs	6.04 (4.3,8.4)	0.91 (0.5,1.6)	2.79 (1.8,4.4)	7.07 (4.9,10.3)	15.25 (10.9,21.3)	23.19 (16.4,32.9)	29.32 (20.8,41.4)	45.67 (31.2,66.8)
35 to <50 yrs	7.01 (4.5,11.0)	1.22 (0.6,2.5)	3.42 (1.9,6.0)	8.29 (4.9,13.9)	17.39 (10.9,27.8)	26.33 (16.6,41.9)	33.10 (20.2,54.1)	49.86 (29.3,84.8)
50 to <65 yrs	7.05 (4.0,12.4)	1.39 (0.5,3.7)	3.70 (1.7,8.3)	8.81 (4.6,16.8)	17.69 (10.5,29.9)	25.40 (15.8,40.8)	30.66 (18.9,49.8)	44.79 (30.0,66.9)
65+ yrs	4.51 (2.3,8.8)	0.65 (0.2,1.9)	1.92 (0.8,4.7)	5.03 (2.1,11.8)	11.56 (5.8,23.1)	18.25 (10.4,32.0)	23.74 (14.2,39.7)	37.46 (25.3,55.4)
<b>Income</b>								
<\$20,000	3.96 (2.5,6.3)	0.42 (0.2,1.0)	1.45 (0.7,3.1)	4.36 (2.4,7.7)	10.36 (6.7,16.1)	16.00 (10.3,24.9)	21.00 (13.6,32.4)	33.73 (22.4,50.9)
>\$20,000	5.40 (3.5,8.4)	0.66 (0.3,1.3)	2.24 (1.2,4.2)	6.26 (3.7,10.7)	13.92 (8.8,22.1)	21.69 (14.6,32.1)	28.12 (19.4,40.8)	42.10 (28.5,62.1)
Income unknown	7.67 (4.4,13.5)	0.87 (0.4,1.8)	3.12 (1.8,5.5)	8.40 (5.1,13.7)	20.39 (11.5,36.0)	31.25 (16.2,60.4)	39.65 (19.7,79.9)	63.65 (26.1,155.2)
<b>Income, finer detail</b>								
<\$20,000	3.96 (2.5,6.3)	0.42 (0.2,1.0)	1.45 (0.7,3.1)	4.36 (2.4,7.7)	10.36 (6.7,16.1)	16.00 (10.3,24.9)	21.00 (13.6,32.4)	33.73 (22.4,50.9)
\$20k-\$45k	4.48 (3.1,6.5)	0.55 (0.3,1.0)	1.79 (1.1,3.0)	5.07 (3.3,7.7)	11.78 (7.8,17.9)	18.13 (12.0,27.3)	23.09 (15.8,33.7)	36.48 (25.0,53.1)
\$45k-\$75k	5.09 (3.0,8.6)	0.60 (0.2,1.5)	2.10 (1.0,4.4)	5.88 (3.2,10.9)	13.35 (8.1,22.0)	20.51 (12.9,32.6)	26.21 (16.4,41.8)	40.59 (26.5,62.2)
\$75k+	6.40 (3.6,11.4)	0.83 (0.3,2.0)	2.80 (1.2,6.3)	7.66 (3.8,15.5)	16.52 (9.0,30.2)	25.92 (16.6,40.4)	31.91 (19.8,51.4)	48.24 (31.9,73.1)
>\$20,000	4.83 (2.5,9.5)	0.78 (0.3,1.8)	2.44 (1.1,5.5)	6.04 (2.9,12.4)	11.72 (5.7,24.0)	19.23 (9.4,39.3)	22.63 (11.5,44.7)	35.42 (18.5,67.8)
Inc Ref/DK	8.95 (4.6,17.4)	1.13 (0.5,2.4)	3.92 (2.1,7.4)	10.29 (5.7,18.4)	24.03 (11.7,49.2)	37.73 (15.3,93.1)	47.16 (19.2,115.6)	66.11 (28.9,151.2)
Inc missing	5.22 (2.2,12.2)	0.63 (0.2,2.1)	2.27 (0.7,7.2)	6.26 (2.3,17.4)	15.02 (5.7,39.2)	21.40 (9.0,50.6)	26.81 (11.7,61.6)	37.44 (17.3,80.9)
<b>Race/Ethnicity</b>								
Mexican American	5.23 (3.2,8.5)	0.57 (0.3,1.1)	2.08 (1.2,3.7)	6.03 (3.6,10.2)	14.28 (9.3,22.0)	21.02 (13.1,33.8)	26.71 (16.0,44.7)	40.09 (20.6,78.0)
Other Hispanic	5.84 (3.5,9.8)	0.39 (0.1,1.1)	1.89 (0.9,3.9)	6.58 (3.7,11.6)	16.30 (9.5,27.9)	25.12 (14.7,43.0)	32.42 (18.5,56.7)	54.95 (30.5,99.1)
White	4.93 (2.9,8.3)	0.60 (0.3,1.3)	2.04 (1.0,4.0)	5.66 (3.0,10.6)	12.66 (7.2,22.4)	19.85 (12.2,32.2)	25.94 (16.7,40.2)	39.73 (26.3,60.1)
Black	4.32 (2.9,6.4)	0.61 (0.3,1.4)	2.00 (1.1,3.7)	5.27 (3.3,8.3)	11.08 (7.6,16.1)	16.00 (10.8,23.6)	20.73 (14.5,29.5)	31.18 (21.5,45.3)
Other race	10.11 (5.2,19.7)	1.34 (0.7,2.7)	5.13 (2.0,12.9)	13.00 (5.9,28.7)	25.78 (13.2,50.4)	39.47 (18.6,83.7)	46.46 (25.3,85.3)	69.15 (37.5,127.6)

Table C-7. Total shellfish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.91 (1.5,5.5)	0.38 (0.2,0.8)	1.18 (0.5,2.6)	3.19 (1.5,6.9)	7.11 (3.6,14.2)	11.20 (5.9,21.1)	14.64 (7.6,28.4)	26.90 (16.0,45.4)
Northeast	7.98 (4.8,13.3)	0.82 (0.2,3.0)	3.40 (1.4,8.2)	9.50 (4.6,19.6)	21.43 (13.7,33.5)	31.31 (20.5,47.9)	39.34 (26.1,59.4)	58.08 (37.5,89.9)
South	5.57 (3.7,8.5)	0.76 (0.4,1.4)	2.48 (1.5,4.2)	6.63 (4.2,10.5)	14.42 (9.2,22.6)	21.59 (14.0,33.4)	27.59 (18.1,42.0)	41.44 (28.2,61.0)
West	5.46 (3.2,9.3)	0.75 (0.4,1.6)	2.47 (1.2,5.0)	6.59 (3.6,12.2)	14.04 (8.1,24.2)	21.23 (13.1,34.5)	26.56 (16.1,43.9)	40.07 (24.4,65.8)
<b>Coastal Status</b>								
Noncoastal	4.32 (2.7,6.9)	0.52 (0.3,1.0)	1.71 (0.9,3.2)	4.77 (2.7,8.4)	10.88 (6.6,18.0)	17.12 (10.6,27.6)	22.93 (14.7,35.7)	37.65 (24.4,58.2)
Coastal	6.70 (4.2,10.8)	0.86 (0.4,2.0)	3.07 (1.6,6.0)	8.29 (4.7,14.6)	17.55 (10.9,28.3)	26.08 (17.0,40.0)	32.16 (21.1,48.9)	47.92 (32.9,69.7)
<b>Coastal/Inland Region</b>								
Pacific	6.15 (3.4,11.1)	0.77 (0.3,1.8)	2.91 (1.4,5.9)	7.74 (4.1,14.7)	16.12 (8.8,29.6)	23.74 (13.2,42.7)	29.40 (16.5,52.5)	42.89 (23.4,78.5)
Atlantic	6.88 (3.2,14.9)	1.01 (0.3,3.5)	3.46 (1.2,9.6)	8.80 (3.7,21.0)	17.76 (8.4,37.5)	25.93 (13.6,49.3)	31.29 (16.4,59.7)	45.19 (25.8,79.3)
Gulf of Mexico	9.80 (5.0,19.1)	1.52 (0.4,5.3)	5.04 (1.8,13.7)	12.86 (5.8,28.6)	25.38 (12.6,51.0)	35.10 (18.9,65.2)	42.99 (24.5,75.5)	60.66 (37.7,97.6)
Great Lakes	4.35 (2.5,7.6)	0.49 (0.2,1.5)	1.55 (0.5,4.6)	4.53 (2.2,9.4)	10.35 (5.7,18.9)	17.27 (9.9,30.1)	26.05 (14.7,46.3)	44.34 (22.6,87.2)
Inland Northeast	8.52 (5.4,13.4)	0.67 (0.1,3.6)	3.05 (1.1,8.7)	9.87 (5.2,18.6)	23.45 (14.7,37.5)	35.55 (21.6,58.4)	44.13 (26.7,72.9)	67.46 (37.3,121.9)
Inland Midwest	2.50 (1.3,4.8)	0.35 (0.2,0.8)	1.09 (0.5,2.3)	2.90 (1.4,6.0)	6.32 (3.2,12.5)	9.61 (4.9,19.0)	12.59 (6.6,24.1)	20.69 (11.2,38.3)
Inland South	3.97 (2.7,5.9)	0.60 (0.3,1.1)	1.92 (1.1,3.3)	4.90 (3.2,7.6)	10.02 (6.8,14.8)	14.76 (10.0,21.8)	18.52 (12.6,27.2)	27.72 (19.1,40.2)
Inland West	4.77 (2.4,9.6)	0.72 (0.3,1.7)	2.15 (0.9,5.3)	5.62 (2.5,12.4)	12.16 (6.1,24.4)	18.99 (10.6,34.2)	23.93 (13.3,43.1)	36.21 (19.8,66.3)

Table C-8. Total shellfish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	6.35 (4.2,9.6)	1.03 (0.5,2.2)	3.01 (1.7,5.4)	7.56 (4.6,12.5)	15.99 (10.6,24.2)	24.18 (16.9,34.5)	30.09 (20.8,43.5)	45.50 (31.9,64.9)
<b>Gender</b>								
Female	5.24 (3.5,7.9)	0.87 (0.4,1.8)	2.54 (1.4,4.5)	6.29 (3.8,10.3)	13.21 (8.8,19.8)	19.65 (13.7,28.2)	24.33 (16.8,35.3)	36.72 (25.6,52.7)
Male	7.78 (5.0,12.0)	1.36 (0.7,2.8)	3.77 (2.0,7.2)	9.34 (5.5,16.0)	19.96 (13.3,29.9)	29.28 (20.3,42.3)	37.02 (26.2,52.3)	52.89 (36.0,77.7)
<b>Age</b>								
21 to <35 yrs	6.04 (4.3,8.4)	0.91 (0.5,1.6)	2.79 (1.8,4.4)	7.07 (4.9,10.3)	15.25 (10.9,21.3)	23.19 (16.4,32.9)	29.32 (20.8,41.4)	45.67 (31.2,66.8)
35 to <50 yrs	7.01 (4.5,11.0)	1.22 (0.6,2.5)	3.42 (1.9,6.0)	8.29 (4.9,13.9)	17.39 (10.9,27.8)	26.33 (16.6,41.9)	33.10 (20.2,54.1)	49.86 (29.3,84.8)
50 to <65 yrs	7.05 (4.0,12.4)	1.39 (0.5,3.7)	3.70 (1.7,8.3)	8.81 (4.6,16.8)	17.69 (10.5,29.9)	25.40 (15.8,40.8)	30.66 (18.9,49.8)	44.79 (30.0,66.9)
65+ yrs	4.51 (2.3,8.8)	0.65 (0.2,1.9)	1.92 (0.8,4.7)	5.03 (2.1,11.8)	11.56 (5.8,23.1)	18.25 (10.4,32.0)	23.74 (14.2,39.7)	37.46 (25.3,55.4)
<b>WCA (13-49 years)</b>	4.95 (3.4,7.1)	0.69 (0.4,1.3)	2.24 (1.4,3.7)	5.85 (3.8,8.9)	12.53 (8.6,18.4)	18.66 (12.8,27.1)	24.02 (16.8,34.4)	37.23 (25.2,55.0)
<b>Income</b>								
<\$20,000	4.76 (3.0,7.6)	0.65 (0.3,1.6)	2.05 (1.0,4.1)	5.52 (3.2,9.6)	12.05 (7.6,19.1)	18.57 (12.1,28.4)	23.88 (15.7,36.2)	39.56 (26.9,58.2)
>\$20,000	6.54 (4.2,10.1)	1.12 (0.5,2.4)	3.18 (1.7,5.8)	7.84 (4.7,13.2)	16.48 (10.8,25.2)	24.69 (17.0,35.9)	30.59 (20.7,45.3)	45.20 (30.3,67.5)
Income unknown	9.00 (5.2,15.6)	1.51 (0.7,3.2)	4.41 (2.6,7.6)	10.50 (6.4,17.3)	22.62 (12.9,39.6)	34.76 (17.2,70.4)	46.50 (18.6,116.5)	66.11 (26.4,165.5)
<b>Income, finer detail</b>								
<\$20,000	4.76 (3.0,7.6)	0.65 (0.3,1.6)	2.05 (1.0,4.1)	5.52 (3.2,9.6)	12.05 (7.6,19.1)	18.57 (12.1,28.4)	23.88 (15.7,36.2)	39.56 (26.9,58.2)
\$20k-\$45k	5.39 (3.7,7.8)	0.88 (0.5,1.6)	2.50 (1.5,4.1)	6.28 (4.2,9.5)	13.81 (9.1,21.0)	20.43 (13.7,30.6)	25.21 (17.8,35.7)	38.84 (27.4,55.1)
\$45k-\$75k	6.17 (3.7,10.2)	1.01 (0.4,2.6)	2.93 (1.4,6.0)	7.38 (4.1,13.2)	15.80 (9.8,25.5)	23.53 (14.9,37.1)	29.00 (18.1,46.5)	43.18 (27.6,67.6)
\$75k+	7.83 (4.4,14.0)	1.54 (0.6,3.8)	4.08 (1.9,8.9)	9.44 (4.5,20.0)	19.69 (11.6,33.4)	28.64 (18.0,45.5)	35.29 (22.1,56.2)	50.60 (31.8,80.5)
>\$20,000	5.56 (2.8,11.2)	1.03 (0.4,2.8)	2.87 (1.2,6.8)	6.98 (3.4,14.4)	13.18 (6.2,28.2)	20.43 (10.1,41.1)	24.30 (11.7,50.3)	37.71 (18.8,75.6)
Inc Ref/DK	10.28 (5.3,20.0)	1.73 (0.9,3.4)	5.13 (2.7,9.6)	12.28 (6.9,22.0)	26.56 (12.8,55.0)	39.43 (16.8,92.7)	55.89 (16.4,191.0)	68.50 (29.3,160.0)
Inc missing	6.10 (2.5,15.0)	1.03 (0.3,3.8)	2.90 (0.9,9.6)	7.13 (2.3,22.1)	17.46 (6.4,47.9)	22.57 (9.7,52.7)	24.73 (10.4,58.9)	37.44 (18.0,77.8)
<b>Race/Ethnicity</b>								
Mexican American	7.11 (4.4,11.5)	1.34 (0.7,2.6)	3.54 (1.9,6.6)	9.04 (5.7,14.4)	18.09 (11.6,28.2)	25.25 (15.3,41.8)	31.69 (19.0,52.9)	46.21 (24.4,87.7)
Other Hispanic	8.24 (4.7,14.4)	1.21 (0.6,2.4)	3.87 (2.1,7.0)	9.72 (5.4,17.4)	21.39 (11.5,39.8)	31.76 (17.2,58.5)	38.12 (20.4,71.1)	59.42 (31.9,110.8)
White	5.85 (3.4,10.1)	0.95 (0.4,2.3)	2.75 (1.3,5.7)	6.96 (3.7,13.2)	14.74 (8.4,25.7)	22.25 (13.7,36.1)	28.42 (18.1,44.6)	41.99 (26.7,65.9)
Black	5.29 (3.7,7.5)	1.02 (0.5,2.0)	2.83 (1.7,4.7)	6.61 (4.4,9.8)	13.07 (9.2,18.6)	18.57 (13.0,26.5)	22.97 (16.0,32.9)	34.03 (22.9,50.6)
Other race	11.95 (6.2,23.1)	2.20 (1.1,4.4)	6.86 (2.9,16.3)	15.49 (7.5,32.1)	29.57 (14.9,58.7)	41.83 (21.9,79.9)	49.50 (28.0,87.5)	76.70 (36.5,161.0)

Table C-8. Total shellfish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	3.18 (1.6,6.4)	0.57 (0.2,1.4)	1.52 (0.6,3.8)	3.66 (1.6,8.5)	7.49 (3.4,16.4)	11.35 (5.5,23.3)	14.04 (6.3,31.4)	25.98 (15.7,43.1)
Northeast	10.16 (6.3,16.4)	1.82 (0.7,4.9)	5.45 (2.7,11.2)	12.83 (7.2,22.9)	25.65 (16.8,39.1)	36.22 (24.0,54.6)	44.19 (28.8,67.9)	63.65 (40.2,100.8)
South	6.89 (4.5,10.6)	1.33 (0.7,2.5)	3.60 (2.1,6.1)	8.52 (5.3,13.6)	17.16 (10.8,27.3)	24.78 (15.9,38.6)	30.72 (20.3,46.6)	45.31 (31.0,66.3)
West	6.41 (3.7,11.1)	1.23 (0.5,3.0)	3.41 (1.6,7.1)	7.95 (4.2,15.1)	16.30 (9.9,26.9)	23.45 (14.7,37.4)	28.40 (17.5,46.2)	42.01 (26.4,66.8)
<b>Coastal Status</b>								
Noncoastal	5.27 (3.2,8.7)	0.83 (0.4,1.8)	2.37 (1.2,4.7)	5.98 (3.3,10.9)	12.94 (7.7,21.7)	20.22 (12.9,31.8)	26.12 (16.5,41.4)	41.57 (26.3,65.7)
Coastal	8.05 (5.0,12.9)	1.58 (0.8,3.3)	4.43 (2.4,8.1)	10.22 (6.0,17.5)	20.19 (12.8,31.8)	28.47 (18.7,43.3)	34.86 (23.2,52.3)	49.89 (34.5,72.2)
<b>Coastal/Inland Region</b>								
Pacific	6.97 (3.7,13.1)	1.48 (0.6,3.4)	3.96 (1.9,8.3)	9.08 (4.7,17.6)	17.25 (9.3,32.2)	24.42 (13.5,44.0)	29.20 (16.1,52.9)	40.71 (21.5,77.0)
Atlantic	8.47 (4.2,17.0)	1.95 (0.7,5.1)	5.13 (2.3,11.6)	11.11 (5.2,23.7)	20.78 (10.7,40.2)	28.22 (14.8,53.7)	33.96 (18.0,63.9)	48.79 (29.0,82.2)
Gulf of Mexico	12.85 (6.8,24.3)	3.21 (1.1,9.1)	7.88 (3.3,18.9)	17.27 (8.0,37.1)	29.60 (16.1,54.5)	41.15 (22.9,74.0)	49.27 (29.2,83.1)	73.41 (40.7,132.5)
Great Lakes	4.54 (2.6,7.8)	0.69 (0.2,2.6)	1.94 (0.6,5.9)	4.85 (2.1,10.9)	10.10 (5.1,20.1)	15.90 (8.9,28.5)	25.98 (14.0,48.4)	44.34 (20.0,98.2)
Inland Northeast	11.10 (6.8,18.0)	1.66 (0.5,5.1)	5.45 (2.6,11.5)	13.83 (8.0,24.0)	28.96 (17.3,48.6)	39.50 (23.7,65.9)	49.86 (29.3,84.8)	78.07 (38.7,157.4)
Inland Midwest	2.82 (1.3,6.0)	0.54 (0.2,1.2)	1.45 (0.6,3.3)	3.42 (1.5,7.7)	7.03 (3.3,14.9)	10.18 (4.7,22.1)	12.79 (5.8,28.1)	20.01 (9.5,42.3)
Inland South	4.77 (3.2,7.2)	0.98 (0.5,1.9)	2.63 (1.5,4.5)	5.93 (3.9,9.1)	11.75 (7.5,18.4)	16.33 (11.1,24.1)	20.87 (13.5,32.3)	31.29 (19.6,49.9)
Inland West	5.80 (2.9,11.6)	1.02 (0.3,3.5)	2.75 (0.9,8.4)	6.93 (3.1,15.8)	14.83 (7.9,27.7)	22.16 (12.9,38.0)	26.55 (14.6,48.4)	42.31 (25.8,69.3)

Table C-9. Total shellfish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	2.50 (1.5,4.2)	0.21 (0.1,0.4)	0.72 (0.4,1.4)	2.32 (1.3,4.2)	6.16 (3.6,10.5)	10.71 (6.4,17.8)	14.43 (8.2,25.4)	27.85 (16.2,47.8)
<b>Gender</b>								
Female	2.11 (1.3,3.5)	0.18 (0.1,0.4)	0.58 (0.3,1.2)	1.93 (1.0,3.6)	5.27 (3.1,8.9)	9.41 (5.7,15.5)	12.77 (7.8,20.9)	24.16 (14.2,41.1)
Male	2.90 (1.7,5.0)	0.25 (0.1,0.5)	0.88 (0.5,1.6)	2.74 (1.5,5.0)	7.15 (4.0,12.6)	12.09 (6.7,21.8)	16.43 (8.7,31.0)	30.85 (17.0,55.9)
<b>Age</b>								
1 to <3 yrs	1.01 (0.5,2.0)	0.10 (0.0,0.3)	0.30 (0.1,0.7)	0.92 (0.4,2.0)	2.35 (1.1,4.9)	4.17 (1.9,9.0)	6.02 (2.8,13.1)	12.49 (5.2,30.3)
3 to <6 yrs	1.87 (1.0,3.4)	0.22 (0.1,0.5)	0.74 (0.3,1.6)	2.15 (1.1,4.2)	4.76 (2.5,9.1)	7.39 (4.0,13.7)	10.02 (5.8,17.4)	16.78 (9.6,29.2)
6 to <11 yrs	1.48 (0.7,3.3)	0.13 (0.0,0.5)	0.44 (0.1,1.4)	1.41 (0.5,3.7)	3.61 (1.6,8.2)	6.25 (3.0,13.1)	9.66 (4.9,19.0)	15.89 (6.7,37.6)
11 to <16 yrs	2.19 (0.5,8.9)	0.22 (0.1,0.5)	0.69 (0.2,1.9)	2.18 (0.7,7.0)	5.30 (1.2,24.1)	9.29 (2.0,43.1)	12.25 (2.3,65.8)	19.29 (2.4,157.1)
16 to <18 yrs	3.23 (1.8,5.7)	0.42 (0.2,1.0)	1.22 (0.6,2.6)	3.79 (1.9,7.4)	7.73 (4.0,15.0)	12.55 (6.9,22.8)	17.83 (10.0,31.8)	30.00 (16.2,55.6)
18 to <21 yrs	5.64 (2.6,12.2)	0.61 (0.2,1.6)	1.93 (0.9,4.1)	6.15 (2.8,13.7)	14.08 (6.8,29.4)	24.84 (9.6,64.5)	32.51 (12.5,84.4)	51.79 (20.7,129.5)
<b>Income</b>								
<\$20,000	2.32 (1.4,3.8)	0.21 (0.1,0.4)	0.67 (0.3,1.4)	2.19 (1.2,4.1)	5.85 (3.5,9.8)	10.87 (6.8,17.3)	14.17 (9.0,22.4)	23.63 (14.4,38.8)
>\$20,000	2.44 (1.4,4.3)	0.21 (0.1,0.4)	0.71 (0.4,1.4)	2.29 (1.2,4.2)	6.03 (3.4,10.8)	10.38 (5.9,18.2)	14.02 (7.5,26.3)	26.66 (14.7,48.3)
Income unknown	4.64 (1.9,11.2)	0.30 (0.1,0.8)	1.23 (0.5,2.9)	4.32 (1.7,10.7)	11.20 (4.5,27.6)	25.21 (5.7,110.9)	31.03 (9.1,105.8)	47.21 (16.8,132.8)
<b>Income, finer detail</b>								
<\$20,000	2.32 (1.4,3.8)	0.21 (0.1,0.4)	0.67 (0.3,1.4)	2.19 (1.2,4.1)	5.85 (3.5,9.8)	10.87 (6.8,17.3)	14.17 (9.0,22.4)	23.63 (14.4,38.8)
\$20k-\$45k	2.22 (1.3,3.7)	0.20 (0.1,0.4)	0.66 (0.4,1.2)	2.10 (1.2,3.6)	5.55 (3.3,9.2)	9.41 (5.5,16.0)	12.98 (7.6,22.2)	24.02 (12.8,45.2)
\$45k-\$75k	2.09 (0.9,4.7)	0.18 (0.1,0.5)	0.62 (0.3,1.4)	2.04 (0.9,4.6)	5.10 (2.1,12.4)	8.29 (3.1,21.9)	12.30 (5.7,26.8)	20.24 (7.8,52.8)
\$75k+	2.85 (1.5,5.5)	0.24 (0.1,0.5)	0.81 (0.4,1.7)	2.59 (1.2,5.5)	7.13 (3.7,13.7)	12.17 (6.0,24.6)	16.65 (7.7,35.9)	31.26 (15.0,65.2)
>\$20,000	2.48 (1.2,5.3)	0.29 (0.1,0.8)	0.95 (0.4,2.4)	2.74 (1.1,6.6)	6.75 (2.9,15.8)	9.80 (3.9,24.7)	11.76 (4.0,34.3)	18.06 (5.8,56.4)
Inc Ref/DK	5.31 (1.9,15.0)	0.39 (0.1,1.2)	1.41 (0.5,4.0)	4.87 (1.6,14.8)	12.25 (4.1,36.5)	28.75 (5.9,139.0)	36.14 (9.4,138.6)	47.21 (17.6,126.8)
Inc missing	3.72 (1.2,11.1)	0.24 (0.1,0.9)	0.88 (0.3,3.0)	3.40 (1.1,10.4)	8.40 (3.1,22.9)	17.06 (4.7,62.2)	31.03 (3.5,272.0)	42.68 (8.1,226.0)
<b>Race/Ethnicity</b>								
Mexican American	2.32 (1.2,4.6)	0.21 (0.1,0.5)	0.70 (0.3,1.5)	2.25 (1.2,4.4)	5.70 (3.0,10.9)	9.88 (5.4,18.0)	13.51 (6.9,26.7)	23.95 (9.8,58.4)
Other Hispanic	1.48 (0.2,13.0)	0.11 (0.0,0.7)	0.35 (0.0,3.2)	1.33 (0.1,11.9)	3.54 (0.3,43.5)	6.51 (0.6,65.6)	9.96 (1.3,75.1)	15.15 (1.5,153.1)
White	2.23 (1.2,4.0)	0.20 (0.1,0.4)	0.63 (0.3,1.3)	2.09 (1.1,3.9)	5.43 (3.0,9.9)	9.14 (4.9,16.9)	12.92 (6.9,24.3)	25.16 (12.6,50.4)
Black	2.36 (1.0,5.7)	0.29 (0.1,0.8)	0.87 (0.3,2.5)	2.47 (0.9,6.5)	5.98 (2.6,13.9)	9.82 (4.5,21.4)	12.98 (5.7,29.8)	20.61 (7.4,57.1)
Other race	6.17 (2.6,14.6)	0.61 (0.2,1.7)	2.09 (0.9,5.1)	7.17 (2.6,19.6)	16.32 (6.6,40.6)	25.38 (10.2,63.1)	35.81 (12.7,100.9)	51.86 (22.1,122.0)

Table C-9. Total shellfish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.22 (1.0,5.0)	0.15 (0.0,0.4)	0.51 (0.2,1.3)	1.63 (0.7,3.9)	5.09 (2.2,11.9)	10.44 (4.4,24.9)	15.75 (6.3,39.7)	29.84 (10.5,84.8)
Northeast	2.29 (0.7,7.3)	0.18 (0.0,1.2)	0.61 (0.1,3.9)	2.16 (0.5,9.6)	5.53 (1.5,21.0)	9.31 (2.8,31.0)	12.47 (3.7,41.9)	26.93 (12.3,58.7)
South	2.18 (1.3,3.8)	0.26 (0.1,0.6)	0.79 (0.4,1.6)	2.36 (1.3,4.3)	5.66 (3.3,9.6)	8.64 (4.7,15.8)	11.89 (6.9,20.3)	18.95 (10.6,33.8)
West	3.29 (1.6,6.7)	0.25 (0.1,0.5)	0.97 (0.5,2.0)	3.05 (1.5,6.1)	8.31 (4.0,17.4)	13.89 (6.7,28.9)	19.18 (8.7,42.1)	37.25 (14.7,94.2)
<b>Coastal Status</b>								
Noncoastal	1.99 (1.2,3.3)	0.20 (0.1,0.4)	0.63 (0.3,1.2)	2.01 (1.1,3.5)	5.01 (3.0,8.4)	8.41 (5.1,13.9)	11.71 (7.1,19.4)	19.30 (11.2,33.3)
Coastal	3.31 (1.7,6.5)	0.24 (0.1,0.7)	0.87 (0.3,2.2)	2.97 (1.3,6.8)	8.23 (3.9,17.2)	14.07 (6.6,29.9)	19.80 (9.6,40.9)	37.52 (19.5,72.3)
<b>Coastal/Inland Region</b>								
Pacific	4.01 (1.7,9.7)	0.17 (0.1,0.4)	0.76 (0.4,1.6)	2.87 (1.4,5.8)	10.85 (4.3,27.6)	19.30 (6.9,54.0)	29.88 (8.7,103.0)	51.88 (14.0,192.2)
Atlantic	2.58 (0.7,9.7)	0.25 (0.0,1.4)	0.82 (0.2,4.3)	2.53 (0.5,12.6)	6.55 (1.6,26.4)	10.45 (2.6,42.3)	13.12 (2.8,62.2)	28.22 (11.8,67.5)
Gulf of Mexico	3.05 (1.1,8.1)	0.38 (0.1,1.6)	1.30 (0.3,4.9)	3.62 (1.1,12.0)	7.98 (2.9,21.9)	12.16 (4.8,31.1)	16.28 (6.2,43.0)	23.08 (10.3,51.5)
Great Lakes	3.93 (1.3,11.8)	0.26 (0.1,0.7)	0.87 (0.3,2.6)	3.46 (1.3,9.5)	11.17 (3.5,35.5)	18.58 (5.4,63.4)	26.13 (7.3,93.0)	40.16 (11.1,145.6)
Inland Northeast	1.66 (0.3,8.4)	0.14 (0.0,1.6)	0.43 (0.0,6.1)	1.53 (0.2,13.5)	4.25 (0.8,22.9)	7.10 (1.6,31.8)	9.01 (1.8,44.8)	13.39 (2.1,84.7)
Inland Midwest	1.67 (0.6,4.4)	0.12 (0.0,0.5)	0.42 (0.1,1.5)	1.33 (0.5,3.9)	3.73 (1.5,9.5)	7.17 (2.6,19.5)	11.39 (3.3,39.4)	24.02 (4.8,120.1)
Inland South	1.93 (1.2,3.1)	0.25 (0.1,0.6)	0.71 (0.4,1.4)	2.13 (1.2,3.7)	4.92 (3.0,8.0)	7.53 (4.6,12.3)	10.21 (6.3,16.6)	17.52 (10.5,29.1)
Inland West	2.70 (1.2,6.2)	0.33 (0.1,0.8)	1.17 (0.4,3.3)	3.17 (1.3,8.0)	7.13 (2.9,17.5)	11.12 (4.7,26.5)	13.84 (5.9,32.3)	20.50 (7.1,59.1)

Table C-10. Marine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	10.78 (8.3,14.0)	2.36 (1.3,4.4)	7.02 (4.4,11.1)	14.80 (11.1,19.8)	25.71 (20.4,32.5)	34.12 (27.3,42.7)	40.50 (31.9,51.5)	56.36 (43.8,72.5)
<b>Gender</b>								
Female	9.92 (7.4,13.3)	2.18 (1.1,4.2)	6.59 (3.9,11.1)	13.73 (9.9,19.0)	23.52 (18.3,30.2)	31.30 (24.7,39.7)	36.90 (29.0,46.9)	50.88 (39.2,66.1)
Male	11.82 (9.2,15.2)	2.58 (1.4,4.6)	7.62 (5.0,11.5)	16.26 (12.2,21.7)	28.23 (22.3,35.7)	37.50 (29.7,47.3)	44.46 (34.7,56.9)	62.79 (48.3,81.7)
<b>Age</b>								
1 to <3 yrs	3.27 (1.8,5.8)	0.45 (0.2,0.9)	1.51 (0.7,3.4)	3.76 (2.1,6.9)	8.06 (4.7,13.8)	13.33 (6.6,26.8)	16.74 (9.1,30.8)	25.29 (14.3,44.6)
3 to <6 yrs	4.47 (2.3,8.9)	0.80 (0.3,2.4)	2.55 (0.9,7.2)	5.83 (2.8,12.1)	11.13 (5.7,21.8)	15.55 (8.5,28.6)	18.36 (11.2,30.1)	25.82 (16.4,40.7)
6 to <11 yrs	6.10 (3.0,12.3)	0.95 (0.4,2.0)	3.04 (1.5,6.3)	7.90 (3.9,16.1)	16.04 (7.2,35.9)	22.28 (10.6,46.9)	27.50 (12.9,58.5)	38.96 (18.8,80.7)
11 to <16 yrs	5.22 (3.3,8.3)	0.89 (0.4,1.9)	2.65 (1.3,5.3)	6.75 (4.0,11.4)	12.96 (8.0,21.0)	18.85 (11.6,30.7)	23.22 (14.2,38.1)	34.83 (20.5,59.3)
16 to <18 yrs	6.85 (4.4,10.7)	1.04 (0.6,1.9)	3.37 (1.8,6.1)	9.45 (5.3,17.0)	17.30 (11.5,26.0)	23.73 (16.4,34.4)	29.32 (19.9,43.2)	39.02 (25.8,59.1)
18 to <21 yrs	10.83 (5.7,20.7)	1.59 (0.8,3.1)	4.81 (2.7,8.5)	13.23 (7.4,23.6)	28.61 (14.1,58.2)	39.99 (20.7,77.4)	47.22 (25.3,88.1)	84.81 (28.2,254.7)
21 to <35 yrs	10.52 (7.6,14.6)	2.72 (1.2,6.1)	7.26 (3.9,13.5)	14.09 (9.9,20.0)	23.75 (18.4,30.6)	32.01 (25.2,40.6)	37.98 (29.7,48.5)	52.46 (38.2,72.0)
35 to <50 yrs	11.78 (9.1,15.3)	4.08 (2.7,6.2)	8.98 (6.6,12.3)	16.22 (12.6,20.8)	25.71 (18.8,35.1)	32.97 (22.4,48.6)	38.15 (24.3,59.9)	49.80 (28.9,85.8)
50 to <65 yrs	17.25 (10.8,27.6)	6.18 (3.1,12.3)	13.10 (7.4,23.2)	23.73 (14.7,38.4)	37.49 (24.2,58.2)	48.33 (30.8,75.9)	56.36 (35.8,88.8)	70.75 (48.8,102.6)
65+ yrs	11.69 (8.5,16.1)	3.69 (2.3,6.0)	8.43 (5.8,12.2)	16.32 (12.2,21.8)	26.30 (18.6,37.2)	34.06 (23.1,50.3)	39.34 (25.0,61.9)	51.11 (30.3,86.1)
<b>Income</b>								
<\$20,000	8.48 (6.6,10.9)	1.54 (1.0,2.5)	4.90 (3.4,7.0)	11.39 (8.7,15.0)	20.72 (16.0,26.8)	28.61 (22.3,36.6)	34.84 (27.0,44.9)	49.32 (36.8,66.2)
>\$20,000	11.18 (8.5,14.7)	2.57 (1.3,5.0)	7.43 (4.6,11.9)	15.37 (11.4,20.6)	26.28 (20.8,33.2)	34.93 (27.7,44.0)	41.26 (32.2,52.9)	57.29 (44.5,73.8)
Income unknown	12.25 (6.4,23.4)	2.70 (0.8,9.3)	8.17 (2.9,22.9)	17.87 (7.8,41.2)	29.36 (16.6,52.0)	37.87 (24.4,58.8)	42.94 (30.2,61.0)	52.82 (34.7,80.3)
<b>Income, finer detail</b>								
<\$20,000	8.48 (6.6,10.9)	1.54 (1.0,2.5)	4.90 (3.4,7.0)	11.39 (8.7,15.0)	20.72 (16.0,26.8)	28.61 (22.3,36.6)	34.84 (27.0,44.9)	49.32 (36.8,66.2)
\$20k-\$45k	9.54 (6.8,13.5)	2.02 (1.0,3.9)	6.01 (3.6,10.1)	12.81 (8.9,18.4)	22.59 (16.9,30.2)	30.69 (23.1,40.7)	36.56 (27.7,48.3)	51.11 (38.5,67.9)
\$45k-\$75k	10.75 (7.9,14.6)	2.43 (1.3,4.5)	7.05 (4.4,11.2)	14.69 (10.5,20.6)	25.09 (18.5,34.0)	33.64 (24.9,45.5)	40.17 (29.2,55.3)	58.40 (43.0,79.2)
\$75k+	12.85 (9.9,16.6)	3.40 (1.6,7.1)	9.17 (5.8,14.5)	18.09 (13.6,24.1)	29.62 (23.5,37.4)	38.79 (30.6,49.2)	45.24 (35.5,57.7)	59.26 (44.5,78.9)
>\$20,000	10.67 (6.5,17.6)	2.83 (1.2,6.4)	7.29 (3.8,14.1)	14.40 (8.7,23.9)	24.55 (15.5,38.9)	31.55 (19.8,50.3)	36.92 (22.9,59.5)	55.21 (31.8,96.0)
Inc Ref/DK	12.61 (6.2,25.8)	2.93 (0.8,10.5)	8.82 (2.8,27.4)	18.35 (7.7,43.7)	29.38 (16.3,53.0)	37.74 (23.2,61.5)	40.43 (27.9,58.7)	51.51 (31.6,84.1)
Inc missing	11.56 (5.1,26.0)	2.24 (0.6,9.1)	7.10 (2.3,22.3)	16.39 (6.1,44.3)	28.83 (12.7,65.2)	38.00 (19.2,75.1)	46.58 (23.0,94.4)	55.70 (30.1,103.1)
<b>Race/Ethnicity</b>								
Mexican American	8.41 (5.7,12.4)	1.48 (0.9,2.6)	5.05 (2.8,9.1)	11.62 (7.4,18.2)	20.56 (14.3,29.6)	27.87 (19.7,39.3)	33.63 (24.1,47.0)	46.60 (33.9,64.0)
Other Hispanic	8.24 (5.9,11.5)	1.43 (0.9,2.4)	5.07 (3.4,7.6)	11.53 (8.2,16.2)	20.10 (14.4,28.0)	26.82 (18.1,39.8)	32.48 (21.6,49.0)	45.65 (28.1,74.2)
White	10.93 (8.3,14.4)	2.54 (1.2,5.2)	7.25 (4.6,11.5)	14.87 (11.2,19.7)	25.76 (20.1,33.0)	34.19 (26.5,44.1)	40.65 (31.0,53.3)	56.75 (43.0,74.8)
Black	9.89 (7.5,13.1)	2.19 (1.4,3.5)	6.43 (4.2,9.9)	13.68 (9.8,19.0)	24.05 (17.8,32.5)	31.81 (24.4,41.4)	36.84 (29.1,46.7)	49.24 (36.8,65.8)
Other race	16.76 (12.0,23.3)	4.61 (2.1,10.1)	13.07 (6.3,26.9)	23.20 (16.7,32.3)	36.99 (29.6,46.3)	46.09 (35.9,59.1)	57.27 (43.1,76.2)	79.75 (54.2,117.4)

Table C-10. Marine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	8.19 (5.6,12.1)	1.72 (0.8,3.8)	5.22 (2.9,9.5)	10.98 (7.3,16.6)	19.57 (13.5,28.3)	26.68 (18.9,37.6)	31.70 (22.6,44.5)	44.64 (31.7,62.9)
Northeast	13.97 (10.6,18.3)	3.04 (1.8,5.0)	9.25 (6.8,12.6)	19.55 (15.0,25.5)	32.96 (25.0,43.5)	42.70 (32.1,56.8)	51.00 (38.3,67.9)	74.26 (48.9,112.7)
South	10.04 (7.7,13.1)	2.26 (1.3,4.0)	6.69 (4.2,10.6)	13.73 (10.1,18.6)	23.36 (18.4,29.7)	31.29 (24.3,40.2)	37.35 (28.7,48.6)	51.36 (37.4,70.4)
West	12.47 (9.1,17.1)	3.05 (1.5,6.1)	8.86 (5.3,14.7)	17.56 (12.4,24.9)	29.29 (21.9,39.2)	37.49 (29.0,48.5)	43.76 (33.9,56.5)	57.17 (43.2,75.7)
<b>Coastal Status</b>								
Noncoastal	10.42 (6.9,15.6)	2.25 (1.1,4.7)	6.72 (3.7,12.2)	14.10 (9.2,21.5)	24.55 (17.5,34.4)	33.60 (23.8,47.4)	39.86 (28.8,55.2)	56.75 (38.8,83.1)
Coastal	11.37 (8.8,14.6)	2.54 (1.6,3.9)	7.56 (5.6,10.1)	15.97 (12.4,20.6)	26.95 (20.1,36.1)	35.18 (24.8,49.8)	41.40 (28.1,60.9)	55.21 (35.8,85.1)
<b>Coastal/Inland Region</b>								
Pacific	11.78 (9.2,15.1)	2.52 (1.6,3.9)	8.31 (5.7,12.0)	17.05 (13.2,22.1)	28.30 (22.2,36.0)	35.86 (26.0,49.4)	41.82 (29.1,60.1)	51.53 (28.2,94.1)
Atlantic	12.29 (8.0,18.9)	3.26 (2.1,5.1)	8.60 (5.5,13.3)	17.29 (11.2,26.6)	28.18 (17.4,45.5)	36.60 (22.5,59.6)	42.39 (25.0,72.0)	56.42 (33.1,96.2)
Gulf of Mexico	10.76 (6.7,17.3)	2.21 (0.9,5.2)	6.58 (3.0,14.4)	14.57 (7.7,27.7)	26.05 (15.9,42.6)	34.37 (23.2,50.9)	41.85 (27.7,63.2)	62.44 (37.7,103.5)
Great Lakes	8.45 (5.4,13.3)	1.56 (1.0,2.5)	4.78 (2.9,7.8)	10.78 (5.9,19.8)	21.36 (13.5,33.8)	29.67 (18.9,46.5)	35.14 (21.1,58.7)	52.95 (37.2,75.4)
Inland Northeast	14.56 (9.1,23.3)	2.58 (1.6,4.2)	9.19 (5.7,14.8)	20.17 (12.9,31.5)	35.84 (21.3,60.4)	45.78 (29.0,72.2)	56.76 (32.9,97.9)	81.36 (39.9,165.8)
Inland Midwest	8.10 (4.4,15.0)	1.79 (0.6,5.0)	5.34 (2.4,11.9)	11.00 (5.9,20.6)	19.21 (10.7,34.4)	25.82 (14.7,45.3)	30.27 (18.3,50.2)	41.19 (25.7,65.9)
Inland South	9.16 (6.2,13.6)	2.00 (1.0,3.9)	6.18 (3.3,11.6)	12.46 (8.2,18.9)	21.08 (15.4,28.8)	28.43 (20.8,38.9)	34.21 (25.0,46.8)	46.00 (33.3,63.5)
Inland West	13.15 (7.3,23.7)	3.62 (1.2,10.8)	9.45 (4.5,19.9)	17.94 (10.3,31.2)	30.20 (17.6,51.7)	39.37 (23.2,66.8)	46.84 (27.4,80.2)	60.72 (37.7,97.8)

DRAFT DOCUMENT

Table C-11. Marine fish usual fish consumption rate estimates, adults ≥21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	12.66 (10.0,16.1)	3.93 (2.2,6.9)	9.15 (6.2,13.4)	17.36 (13.4,22.6)	28.32 (22.7,35.4)	36.93 (29.5,46.3)	43.24 (33.8,55.3)	59.03 (45.4,76.7)
<b>Gender</b>								
Female	11.59 (8.8,15.3)	3.59 (1.9,6.9)	8.44 (5.4,13.2)	15.83 (11.9,21.0)	26.03 (20.4,33.2)	33.80 (26.7,42.7)	39.54 (30.8,50.7)	53.12 (40.8,69.1)
Male	14.03 (11.1,17.8)	4.43 (2.7,7.2)	10.20 (7.2,14.4)	19.21 (15.0,24.7)	31.36 (24.9,39.5)	40.57 (31.6,52.1)	47.92 (36.9,62.2)	64.05 (47.7,86.0)
<b>Age</b>								
21 to <35 yrs	10.52 (7.6,14.6)	2.72 (1.2,6.1)	7.26 (3.9,13.5)	14.09 (9.9,20.0)	23.75 (18.4,30.6)	32.01 (25.2,40.6)	37.98 (29.7,48.5)	52.46 (38.2,72.0)
35 to <50 yrs	11.78 (9.1,15.3)	4.08 (2.7,6.2)	8.98 (6.6,12.3)	16.22 (12.6,20.8)	25.71 (18.8,35.1)	32.97 (22.4,48.6)	38.15 (24.3,59.9)	49.80 (28.9,85.8)
50 to <65 yrs	17.25 (10.8,27.6)	6.18 (3.1,12.3)	13.10 (7.4,23.2)	23.73 (14.7,38.4)	37.49 (24.2,58.2)	48.33 (30.8,75.9)	56.36 (35.8,88.8)	70.75 (48.8,102.6)
65+ yrs	11.69 (8.5,16.1)	3.69 (2.3,6.0)	8.43 (5.8,12.2)	16.32 (12.2,21.8)	26.30 (18.6,37.2)	34.06 (23.1,50.3)	39.34 (25.0,61.9)	51.11 (30.3,86.1)
<b>WCA (13-49 years)</b>	9.52 (7.5,12.1)	2.30 (1.2,4.3)	6.69 (4.0,11.2)	13.24 (10.0,17.6)	21.96 (17.8,27.1)	29.09 (23.4,36.2)	34.16 (26.6,43.9)	44.94 (31.7,63.7)
<b>Income</b>								
<\$20,000	10.13 (7.9,13.0)	2.38 (1.5,3.9)	6.64 (4.7,9.4)	13.68 (10.4,17.9)	23.47 (18.4,29.9)	31.73 (24.8,40.5)	37.51 (28.5,49.3)	52.93 (38.5,72.8)
>\$20,000	13.07 (10.2,16.7)	4.27 (2.4,7.5)	9.59 (6.5,14.1)	17.85 (13.8,23.1)	28.95 (23.1,36.3)	37.61 (29.7,47.6)	44.17 (34.5,56.6)	59.38 (45.5,77.5)
Income unknown	14.05 (7.7,25.5)	4.33 (1.2,16.2)	10.70 (4.0,28.3)	20.18 (9.9,41.2)	30.95 (19.8,48.4)	39.90 (26.7,59.5)	44.96 (31.9,63.5)	64.21 (38.0,108.4)
<b>Income, finer detail</b>								
<\$20,000	10.13 (7.9,13.0)	2.38 (1.5,3.9)	6.64 (4.7,9.4)	13.68 (10.4,17.9)	23.47 (18.4,29.9)	31.73 (24.8,40.5)	37.51 (28.5,49.3)	52.93 (38.5,72.8)
\$20k-\$45k	10.99 (8.2,14.7)	3.28 (1.7,6.3)	7.78 (4.9,12.3)	14.83 (10.9,20.2)	24.76 (19.1,32.2)	33.08 (25.3,43.2)	38.41 (29.3,50.3)	51.69 (38.4,69.6)
\$45k-\$75k	12.49 (9.3,16.8)	3.87 (2.3,6.4)	8.96 (6.0,13.4)	16.95 (12.4,23.3)	27.66 (20.6,37.2)	36.28 (27.1,48.5)	43.17 (31.7,58.7)	60.72 (44.6,82.7)
\$75k+	15.27 (12.1,19.3)	5.88 (3.3,10.6)	11.61 (8.5,15.9)	20.82 (16.4,26.4)	32.66 (26.0,41.0)	41.76 (32.7,53.4)	48.14 (37.0,62.6)	61.76 (45.1,84.6)
>\$20,000	12.18 (7.5,19.8)	3.93 (1.9,8.2)	8.83 (4.9,15.9)	16.61 (10.1,27.3)	27.18 (17.0,43.4)	33.96 (21.2,54.3)	41.21 (25.6,66.2)	59.38 (33.0,106.7)
Inc Ref/DK	14.61 (7.4,29.0)	4.62 (1.2,17.8)	11.39 (4.0,32.7)	21.06 (9.5,46.7)	31.40 (18.9,52.2)	39.90 (26.0,61.2)	43.96 (30.4,63.6)	66.21 (34.0,129.1)
Inc missing	12.80 (6.2,26.5)	3.72 (0.8,18.3)	8.51 (3.4,21.2)	17.84 (7.8,40.5)	29.85 (14.8,60.2)	39.09 (20.1,75.9)	46.58 (24.6,88.1)	60.92 (33.1,112.2)
<b>Race/Ethnicity</b>								
Mexican American	11.01 (7.1,17.0)	2.95 (1.6,5.6)	8.05 (4.3,15.1)	15.34 (9.2,25.5)	24.60 (16.6,36.5)	32.61 (22.0,48.3)	37.82 (26.9,53.2)	51.54 (36.7,72.4)
Other Hispanic	10.88 (7.9,15.1)	3.35 (1.7,6.5)	7.80 (5.0,12.1)	14.71 (10.5,20.6)	23.59 (16.7,33.3)	31.29 (21.4,45.8)	38.13 (26.3,55.4)	49.20 (28.2,85.9)
White	12.40 (9.7,15.8)	3.89 (2.3,6.6)	8.96 (6.3,12.8)	16.94 (13.2,21.8)	27.72 (21.6,35.6)	36.21 (27.7,47.3)	42.70 (32.2,56.6)	58.28 (43.9,77.3)
Black	12.41 (8.8,17.4)	3.99 (1.9,8.2)	9.10 (5.4,15.3)	17.17 (11.7,25.3)	27.88 (20.3,38.2)	35.39 (27.5,45.5)	40.86 (31.8,52.5)	52.99 (38.7,72.6)
Other race	19.88 (14.7,26.8)	7.38 (4.2,13.0)	16.13 (9.8,26.7)	27.20 (19.8,37.3)	40.91 (32.3,51.9)	52.09 (39.7,68.3)	62.58 (45.3,86.5)	83.12 (55.7,124.1)

Table C-11. Marine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	9.78 (6.6,14.5)	2.92 (1.4,5.9)	6.80 (4.0,11.5)	13.22 (8.6,20.4)	22.25 (15.2,32.7)	29.10 (20.6,41.1)	33.97 (23.7,48.7)	49.65 (34.1,72.3)
Northeast	16.09 (12.6,20.5)	5.13 (3.4,7.8)	12.20 (9.2,16.2)	22.32 (17.4,28.6)	35.79 (27.7,46.2)	44.96 (34.0,59.5)	52.36 (39.4,69.6)	70.86 (53.2,94.5)
South	11.82 (9.2,15.3)	3.78 (2.1,6.8)	8.60 (5.7,12.9)	16.07 (12.1,21.3)	26.22 (20.6,33.4)	34.13 (26.5,43.9)	39.92 (29.9,53.3)	54.34 (38.9,75.9)
West	14.67 (10.9,19.7)	5.35 (2.9,9.8)	11.28 (7.5,17.0)	19.94 (15.0,26.6)	32.08 (24.2,42.4)	40.59 (31.2,52.8)	47.22 (36.3,61.4)	60.20 (45.0,80.6)
<b>Coastal Status</b>								
Noncoastal	12.17 (8.3,17.8)	3.72 (1.8,7.9)	8.66 (5.1,14.7)	16.51 (11.2,24.4)	27.30 (19.7,37.8)	35.98 (26.3,49.2)	42.54 (31.1,58.2)	58.94 (41.4,84.0)
Coastal	13.43 (10.1,17.8)	4.30 (3.0,6.2)	9.98 (7.5,13.3)	18.64 (14.2,24.5)	29.85 (21.8,40.9)	38.38 (27.0,54.6)	44.17 (29.2,66.7)	59.25 (39.9,88.0)
<b>Coastal/Inland Region</b>								
Pacific	13.89 (10.6,18.2)	4.84 (3.1,7.6)	10.68 (7.7,14.8)	19.09 (14.3,25.5)	30.89 (23.6,40.4)	39.14 (29.2,52.5)	43.79 (29.3,65.4)	54.14 (30.4,96.3)
Atlantic	14.55 (9.2,23.0)	5.29 (3.2,8.7)	11.16 (7.1,17.4)	20.25 (13.2,31.1)	30.95 (18.7,51.2)	39.70 (24.0,65.5)	45.57 (26.6,78.1)	60.79 (36.5,101.3)
Gulf of Mexico	12.12 (7.7,19.0)	3.32 (1.7,6.3)	8.16 (4.1,16.3)	16.51 (9.1,30.0)	27.87 (17.4,44.5)	37.47 (23.0,61.0)	44.21 (27.6,70.9)	60.92 (33.1,112.0)
Great Lakes	10.38 (6.6,16.3)	2.61 (1.3,5.1)	6.73 (3.9,11.7)	13.43 (7.6,23.7)	24.52 (16.1,37.3)	32.64 (20.6,51.8)	39.20 (25.1,61.2)	62.01 (41.3,93.2)
Inland Northeast	16.53 (10.9,25.1)	4.44 (2.5,8.0)	12.31 (7.5,20.3)	22.83 (15.3,34.0)	37.42 (24.8,56.4)	48.31 (31.8,73.4)	56.54 (36.9,86.5)	76.33 (46.9,124.2)
Inland Midwest	9.61 (5.2,17.8)	2.98 (1.2,7.5)	6.81 (3.3,13.9)	13.14 (6.8,25.6)	21.41 (12.0,38.2)	27.96 (16.4,47.7)	33.06 (19.6,55.8)	46.18 (26.1,81.8)
Inland South	10.85 (7.3,16.2)	3.49 (1.5,8.1)	8.01 (4.4,14.5)	14.65 (9.7,22.1)	23.34 (17.3,31.4)	31.14 (22.8,42.4)	36.74 (27.2,49.5)	49.10 (34.8,69.2)
Inland West	15.51 (8.8,27.2)	5.86 (2.4,14.3)	11.76 (6.3,21.8)	20.64 (12.4,34.2)	33.58 (19.6,57.5)	42.99 (25.2,73.4)	51.78 (28.2,95.2)	64.07 (39.7,103.3)

DRAFT DOCUMENT

Table C-12. Marine fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	6.11 (3.8,9.8)	0.90 (0.4,1.8)	2.80 (1.5,5.3)	7.39 (4.4,12.3)	15.45 (9.8,24.4)	22.53 (15.1,33.6)	29.11 (19.0,44.6)	42.49 (29.4,61.5)
<b>Gender</b>								
Female	5.35 (3.4,8.5)	0.80 (0.4,1.6)	2.51 (1.3,5.0)	6.68 (3.9,11.5)	13.87 (8.6,22.2)	19.97 (13.4,29.9)	25.70 (16.6,39.7)	37.23 (25.6,54.2)
Male	6.90 (4.2,11.4)	1.03 (0.5,2.2)	3.20 (1.6,6.3)	8.14 (5.0,13.1)	16.96 (10.9,26.4)	25.25 (16.5,38.6)	31.92 (21.0,48.6)	48.17 (31.0,74.7)
<b>Age</b>								
1 to <3 yrs	3.27 (1.8,5.8)	0.45 (0.2,0.9)	1.51 (0.7,3.4)	3.76 (2.1,6.9)	8.06 (4.7,13.8)	13.33 (6.6,26.8)	16.74 (9.1,30.8)	25.29 (14.3,44.6)
3 to <6 yrs	4.47 (2.3,8.9)	0.80 (0.3,2.4)	2.55 (0.9,7.2)	5.83 (2.8,12.1)	11.13 (5.7,21.8)	15.55 (8.5,28.6)	18.36 (11.2,30.1)	25.82 (16.4,40.7)
6 to <11 yrs	6.10 (3.0,12.3)	0.95 (0.4,2.0)	3.04 (1.5,6.3)	7.90 (3.9,16.1)	16.04 (7.2,35.9)	22.28 (10.6,46.9)	27.50 (12.9,58.5)	38.96 (18.8,80.7)
11 to <16 yrs	5.22 (3.3,8.3)	0.89 (0.4,1.9)	2.65 (1.3,5.3)	6.75 (4.0,11.4)	12.96 (8.0,21.0)	18.85 (11.6,30.7)	23.22 (14.2,38.1)	34.83 (20.5,59.3)
16 to <18 yrs	6.85 (4.4,10.7)	1.04 (0.6,1.9)	3.37 (1.8,6.1)	9.45 (5.3,17.0)	17.30 (11.5,26.0)	23.73 (16.4,34.4)	29.32 (19.9,43.2)	39.02 (25.8,59.1)
18 to <21 yrs	10.83 (5.7,20.7)	1.59 (0.8,3.1)	4.81 (2.7,8.5)	13.23 (7.4,23.6)	28.61 (14.1,58.2)	39.99 (20.7,77.4)	47.22 (25.3,88.1)	84.81 (28.2,254.7)
<b>Income</b>								
<\$20,000	5.06 (3.6,7.1)	0.81 (0.5,1.4)	2.42 (1.6,3.6)	6.13 (4.3,8.7)	12.73 (8.9,18.2)	18.69 (12.5,28.0)	24.07 (15.9,36.6)	36.10 (22.9,56.9)
>\$20,000	6.26 (3.6,10.8)	0.92 (0.4,2.0)	2.86 (1.4,5.8)	7.60 (4.2,13.8)	15.83 (9.3,27.1)	22.61 (14.9,34.3)	29.49 (18.6,46.8)	43.34 (29.3,64.2)
Income unknown	8.14 (3.0,22.1)	1.10 (0.4,3.0)	3.92 (1.1,13.8)	10.53 (2.8,39.2)	23.34 (5.8,93.8)	29.89 (12.3,72.9)	34.46 (17.9,66.3)	47.22 (24.5,91.2)
<b>Income, finer detail</b>								
<\$20,000	5.06 (3.6,7.1)	0.81 (0.5,1.4)	2.42 (1.6,3.6)	6.13 (4.3,8.7)	12.73 (8.9,18.2)	18.69 (12.5,28.0)	24.07 (15.9,36.6)	36.10 (22.9,56.9)
\$20k-\$45k	5.90 (2.8,12.6)	0.81 (0.4,1.6)	2.51 (1.2,5.1)	6.66 (3.5,12.8)	14.51 (7.3,28.8)	21.39 (11.4,40.0)	26.74 (15.2,47.1)	42.40 (21.8,82.5)
\$45k-\$75k	5.89 (3.7,9.5)	0.79 (0.4,1.5)	2.64 (1.3,5.2)	7.03 (4.1,12.0)	14.70 (9.2,23.5)	21.00 (13.3,33.1)	29.11 (17.6,48.2)	43.85 (25.0,76.9)
\$75k+	6.82 (4.0,11.7)	1.10 (0.4,3.0)	3.35 (1.5,7.6)	8.51 (4.7,15.3)	17.51 (10.0,30.8)	24.44 (16.0,37.3)	31.59 (19.8,50.4)	43.38 (29.8,63.2)
>\$20,000	5.79 (3.4,10.0)	1.28 (0.4,4.4)	3.35 (1.7,6.6)	7.75 (4.0,15.1)	14.19 (7.5,27.0)	19.99 (11.1,36.0)	23.25 (11.7,46.1)	31.07 (11.3,85.3)
Inc Ref/DK	7.17 (2.3,22.2)	1.03 (0.4,2.6)	3.59 (1.1,12.0)	9.68 (2.2,43.1)	20.08 (4.4,91.4)	26.06 (8.0,85.3)	29.32 (12.2,70.6)	38.01 (18.4,78.5)
Inc missing	9.48 (2.7,33.4)	1.15 (0.3,4.5)	4.50 (0.8,25.7)	11.88 (2.7,52.2)	27.99 (5.4,146.3)	34.11 (11.2,104.3)	46.45 (13.0,165.8)	51.05 (18.7,139.4)
<b>Race/Ethnicity</b>								
Mexican American	4.41 (3.1,6.2)	0.68 (0.4,1.1)	2.14 (1.3,3.6)	5.45 (3.7,8.1)	11.37 (7.9,16.4)	16.89 (11.6,24.6)	20.45 (14.1,29.6)	30.90 (20.6,46.3)
Other Hispanic	3.44 (1.4,8.4)	0.50 (0.2,1.3)	1.63 (0.7,3.6)	4.65 (2.4,9.0)	9.23 (4.2,20.1)	12.90 (5.1,32.6)	14.85 (4.4,50.6)	21.56 (5.5,85.2)
White	6.62 (3.2,13.9)	0.94 (0.4,2.5)	2.93 (1.1,7.6)	7.80 (3.7,16.6)	16.49 (8.4,32.3)	24.62 (13.1,46.2)	31.92 (16.5,61.9)	47.22 (26.3,84.8)
Black	4.85 (3.3,7.2)	0.97 (0.6,1.6)	2.80 (1.9,4.2)	6.37 (4.3,9.5)	11.90 (8.0,17.7)	16.09 (9.7,26.8)	20.06 (12.2,32.8)	29.33 (17.5,49.1)
Other race	10.10 (6.3,16.2)	1.89 (0.6,5.6)	5.89 (2.5,13.7)	15.18 (6.1,37.7)	25.10 (15.7,40.1)	32.35 (23.4,44.8)	36.26 (22.1,59.6)	46.27 (20.4,105.0)

Table C-12. Marine fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.15 (2.9,5.9)	0.71 (0.3,1.8)	2.06 (1.0,4.4)	5.37 (3.2,9.1)	10.46 (7.4,14.8)	14.95 (9.6,23.3)	18.48 (10.6,32.4)	26.84 (12.4,58.1)
Northeast	8.44 (3.7,19.2)	1.10 (0.6,2.0)	3.60 (2.1,6.3)	8.79 (6.0,13.0)	19.92 (10.3,38.4)	33.53 (11.8,95.3)	43.34 (13.8,136.3)	87.28 (12.2,626.4)
South	5.48 (3.6,8.4)	0.87 (0.5,1.5)	2.59 (1.6,4.3)	6.91 (4.3,11.2)	14.01 (8.9,21.9)	19.76 (13.3,29.4)	24.26 (16.6,35.5)	37.58 (24.8,57.0)
West	7.45 (3.6,15.4)	1.19 (0.4,3.5)	3.65 (1.3,10.0)	9.86 (3.8,25.5)	19.83 (8.7,45.3)	27.91 (13.6,57.3)	32.79 (18.3,58.7)	43.16 (26.5,70.2)
<b>Coastal Status</b>								
Noncoastal	6.09 (3.2,11.4)	0.89 (0.4,1.8)	2.78 (1.4,5.7)	7.32 (3.9,13.6)	14.94 (8.5,26.4)	21.68 (12.8,36.8)	28.92 (15.1,55.5)	43.38 (23.2,81.1)
Coastal	6.15 (4.4,8.5)	0.93 (0.4,2.0)	2.82 (1.6,4.9)	7.53 (5.0,11.3)	16.09 (11.3,22.8)	23.61 (16.9,32.9)	29.33 (21.2,40.6)	39.47 (23.7,65.6)
<b>Coastal/Inland Region</b>								
Pacific	6.30 (4.2,9.6)	0.74 (0.4,1.5)	2.54 (1.3,4.9)	7.70 (3.8,15.5)	18.48 (9.1,37.5)	26.74 (15.9,44.9)	32.35 (21.1,49.5)	42.43 (22.5,80.0)
Atlantic	6.18 (4.1,9.3)	1.09 (0.6,2.1)	3.34 (1.9,6.0)	8.02 (5.1,12.7)	15.51 (10.4,23.1)	22.11 (14.7,33.2)	26.38 (17.5,39.7)	36.93 (24.2,56.4)
Gulf of Mexico	7.74 (2.8,21.0)	1.15 (0.3,4.7)	3.26 (1.0,10.6)	9.75 (2.8,33.7)	20.32 (6.8,60.9)	28.10 (11.7,67.7)	35.32 (15.4,80.8)	66.18 (20.6,212.9)
Great Lakes	4.17 (1.7,10.0)	0.81 (0.3,2.3)	2.02 (1.2,3.4)	4.72 (2.1,10.4)	10.19 (3.2,32.6)	15.32 (4.1,56.7)	21.14 (6.9,65.1)	30.70 (8.9,105.9)
Inland Northeast	9.33 (3.1,27.7)	0.97 (0.6,1.6)	3.09 (1.9,5.1)	8.51 (5.6,13.0)	21.45 (8.9,51.8)	41.45 (8.4,204.6)	66.81 (6.9,647.9)	97.40 (9.6,984.9)
Inland Midwest	4.15 (2.3,7.5)	0.70 (0.2,1.9)	2.11 (0.8,5.9)	5.52 (2.5,12.3)	10.57 (6.0,18.7)	14.74 (9.3,23.5)	18.10 (11.8,27.7)	25.04 (16.9,37.0)
Inland South	4.87 (3.0,8.0)	0.78 (0.4,1.4)	2.33 (1.3,4.1)	6.30 (3.6,11.1)	12.42 (7.4,20.9)	17.62 (10.7,28.9)	21.76 (13.4,35.4)	34.09 (19.9,58.5)
Inland West	8.40 (2.8,25.5)	1.71 (0.3,8.4)	4.76 (1.1,20.4)	11.27 (3.4,37.7)	20.58 (7.3,58.3)	28.92 (10.3,81.4)	34.19 (13.1,89.4)	45.61 (20.5,101.2)

Table C-13. Freshwater fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	1.66 (1.0,2.7)	0.12 (0.0,0.6)	0.45 (0.1,1.5)	1.46 (0.7,3.1)	3.83 (2.3,6.4)	6.70 (4.2,10.7)	9.59 (6.1,15.2)	17.89 (10.5,30.4)
<b>Gender</b>								
Female	1.27 (0.7,2.2)	0.10 (0.0,0.5)	0.36 (0.1,1.1)	1.16 (0.6,2.3)	2.99 (1.8,5.1)	5.13 (2.8,9.4)	7.29 (3.8,14.2)	13.85 (6.2,30.8)
Male	2.13 (1.1,3.9)	0.18 (0.0,1.0)	0.60 (0.2,2.2)	1.92 (0.8,4.8)	4.94 (2.6,9.4)	8.50 (4.9,14.6)	12.15 (7.2,20.5)	22.16 (13.6,36.0)
<b>Age</b>								
1 to <3 yrs	0.81 (0.4,1.6)	0.04 (0.0,0.5)	0.15 (0.0,0.8)	0.54 (0.2,1.6)	1.79 (0.7,4.3)	3.47 (1.6,7.4)	5.33 (2.5,11.3)	10.68 (5.3,21.6)
3 to <6 yrs	0.79 (0.3,1.9)	0.02 (0.0,0.2)	0.16 (0.0,1.5)	0.66 (0.1,3.4)	1.74 (0.7,4.2)	3.32 (1.5,7.5)	4.87 (2.2,11.0)	9.73 (3.5,27.2)
6 to <11 yrs	0.83 (0.4,1.6)	0.07 (0.0,0.5)	0.24 (0.1,1.0)	0.76 (0.3,2.1)	2.01 (1.0,4.2)	3.46 (1.7,7.0)	4.99 (2.3,10.7)	8.61 (3.2,23.3)
11 to <16 yrs	0.97 (0.4,2.1)	0.05 (0.0,0.3)	0.21 (0.0,1.0)	0.74 (0.2,2.2)	2.31 (0.9,5.8)	4.17 (1.9,9.3)	6.08 (2.8,13.1)	12.97 (5.9,28.5)
16 to <18 yrs	0.64 (0.1,3.3)	0.03 (0.0,0.3)	0.10 (0.0,1.1)	0.38 (0.0,3.7)	1.23 (0.2,8.9)	2.72 (0.6,12.3)	4.23 (1.0,18.1)	10.17 (2.8,36.3)
18 to <21 yrs	0.78 (0.3,2.2)	0.02 (0.0,0.1)	0.08 (0.0,0.2)	0.38 (0.1,1.4)	1.39 (0.3,5.5)	2.93 (0.8,10.4)	4.83 (1.6,14.8)	11.99 (4.4,32.7)
21 to <35 yrs	1.54 (0.8,3.1)	0.17 (0.0,1.4)	0.52 (0.1,2.6)	1.45 (0.5,4.3)	3.54 (1.6,7.6)	6.03 (3.0,12.0)	8.22 (4.4,15.4)	15.38 (7.7,30.5)
35 to <50 yrs	1.77 (1.1,3.0)	0.15 (0.0,0.6)	0.47 (0.2,1.3)	1.46 (0.7,2.9)	3.93 (2.2,6.9)	7.34 (4.2,12.9)	10.46 (5.9,18.4)	19.85 (10.2,38.7)
50 to <65 yrs	2.93 (1.4,6.1)	0.35 (0.1,2.2)	1.09 (0.3,4.3)	2.99 (1.1,8.0)	6.74 (3.4,13.2)	11.00 (6.0,20.1)	14.36 (8.1,25.5)	27.06 (15.0,48.7)
65+ yrs	1.92 (1.0,3.8)	0.28 (0.0,1.6)	0.74 (0.3,2.0)	1.93 (0.9,4.0)	4.34 (1.9,10.1)	6.86 (2.6,17.9)	9.64 (3.8,24.3)	18.68 (8.2,42.7)
<b>Income</b>								
<\$20,000	1.98 (1.0,3.9)	0.15 (0.0,0.9)	0.54 (0.1,2.2)	1.78 (0.7,4.8)	4.68 (2.3,9.3)	8.07 (4.4,14.7)	11.40 (6.5,19.8)	20.23 (11.8,34.5)
>\$20,000	1.59 (1.0,2.6)	0.12 (0.0,0.6)	0.44 (0.1,1.3)	1.41 (0.7,2.9)	3.66 (2.2,6.1)	6.35 (3.9,10.4)	9.06 (5.5,15.0)	17.32 (9.7,31.0)
Income unknown	1.80 (0.6,5.1)	0.14 (0.0,1.5)	0.50 (0.1,3.2)	1.63 (0.4,7.3)	4.28 (1.3,13.9)	7.82 (2.5,24.0)	12.32 (3.5,43.5)	19.87 (8.1,48.6)
<b>Income, finer detail</b>								
<\$20,000	1.98 (1.0,3.9)	0.15 (0.0,0.9)	0.54 (0.1,2.2)	1.78 (0.7,4.8)	4.68 (2.3,9.3)	8.07 (4.4,14.7)	11.40 (6.5,19.8)	20.23 (11.8,34.5)
\$20k-\$45k	1.59 (0.7,3.6)	0.13 (0.0,0.5)	0.46 (0.2,1.1)	1.42 (0.7,3.0)	3.61 (1.5,8.6)	6.36 (2.6,15.7)	8.96 (3.4,23.4)	17.15 (5.9,49.5)
\$45k-\$75k	1.58 (0.8,3.3)	0.12 (0.0,0.9)	0.45 (0.1,2.1)	1.47 (0.5,4.4)	3.87 (1.7,8.9)	6.53 (3.3,13.1)	9.22 (4.7,18.1)	16.50 (8.3,32.9)
\$75k+	1.57 (0.8,3.0)	0.11 (0.0,0.6)	0.40 (0.1,1.4)	1.32 (0.5,3.3)	3.52 (1.8,7.0)	6.14 (3.4,11.1)	8.90 (5.1,15.7)	18.04 (10.1,32.1)
>\$20,000	1.97 (0.4,9.5)	0.17 (0.0,4.1)	0.62 (0.0,8.9)	1.89 (0.2,16.4)	4.36 (0.9,20.8)	8.10 (1.6,40.5)	11.17 (2.6,48.2)	20.16 (6.0,67.8)
Inc Ref/DK	1.62 (0.7,3.8)	0.13 (0.0,0.9)	0.47 (0.1,2.1)	1.46 (0.5,4.3)	3.85 (1.6,9.4)	7.19 (2.9,18.1)	9.70 (4.2,22.6)	17.57 (6.5,47.4)
Inc missing	2.14 (0.2,29.5)	0.16 (0.0,7.0)	0.61 (0.0,18.5)	1.96 (0.1,40.6)	4.91 (0.3,71.0)	10.19 (0.5,202.4)	15.42 (0.7,341.8)	23.53 (2.0,270.5)
<b>Race/Ethnicity</b>								
Mexican American	1.76 (0.9,3.3)	0.21 (0.0,1.4)	0.66 (0.2,2.4)	1.84 (0.9,3.9)	4.33 (2.3,8.3)	7.10 (3.5,14.4)	9.78 (4.6,20.7)	15.94 (5.4,47.5)
Other Hispanic	2.30 (0.8,6.8)	0.08 (0.0,0.3)	0.40 (0.1,1.3)	1.52 (0.6,3.9)	5.31 (1.8,15.7)	10.19 (3.1,33.2)	16.11 (4.2,61.8)	29.41 (7.3,118.0)
White	1.01 (0.6,1.8)	0.10 (0.0,0.6)	0.33 (0.1,1.2)	1.03 (0.4,2.4)	2.54 (1.4,4.7)	4.19 (2.3,7.6)	5.63 (2.9,10.9)	9.97 (4.5,21.9)
Black	2.98 (1.7,5.1)	0.35 (0.1,1.1)	1.11 (0.5,2.5)	3.05 (1.7,5.4)	7.15 (4.1,12.4)	11.63 (6.3,21.5)	15.73 (8.0,30.9)	27.24 (12.3,60.1)
Other race	5.09 (1.8,14.1)	0.27 (0.0,2.1)	1.53 (0.2,13.4)	4.80 (1.1,21.6)	12.39 (3.9,39.3)	18.90 (8.7,41.3)	28.04 (12.8,61.5)	62.27 (21.6,179.1)

Table C-13. Freshwater fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.51 (0.8,2.9)	0.11 (0.0,0.5)	0.43 (0.2,1.2)	1.38 (0.7,2.8)	3.46 (1.6,7.3)	5.79 (2.4,13.9)	8.01 (3.1,20.8)	16.65 (7.4,37.2)
Northeast	1.10 (0.4,2.7)	0.09 (0.0,0.9)	0.33 (0.1,1.9)	1.00 (0.3,3.6)	2.45 (1.0,5.8)	4.39 (2.0,9.8)	6.49 (2.8,15.0)	12.40 (5.7,27.0)
South	2.34 (1.3,4.1)	0.21 (0.0,1.1)	0.74 (0.2,2.6)	2.23 (0.9,5.2)	5.55 (3.0,10.3)	9.51 (5.4,16.6)	12.96 (7.6,22.0)	23.01 (12.5,42.3)
West	1.20 (0.6,2.5)	0.09 (0.0,0.5)	0.31 (0.1,1.0)	0.97 (0.4,2.2)	2.70 (1.3,5.5)	4.83 (2.3,9.9)	7.11 (3.3,15.2)	14.20 (5.9,34.3)
<b>Coastal Status</b>								
Noncoastal	1.59 (0.9,2.8)	0.11 (0.0,0.6)	0.43 (0.1,1.5)	1.44 (0.6,3.5)	3.79 (2.1,6.9)	6.57 (3.8,11.3)	9.26 (5.5,15.6)	16.63 (9.2,30.2)
Coastal	1.77 (1.1,2.9)	0.14 (0.0,0.7)	0.48 (0.2,1.4)	1.50 (0.8,2.9)	3.91 (2.4,6.5)	6.96 (4.2,11.5)	10.09 (6.0,17.0)	19.40 (10.2,36.9)
<b>Coastal/Inland Region</b>								
Pacific	1.34 (0.8,2.3)	0.14 (0.0,0.7)	0.44 (0.1,1.3)	1.30 (0.6,2.7)	3.18 (1.8,5.5)	5.36 (3.1,9.2)	7.27 (4.0,13.1)	13.66 (7.0,26.7)
Atlantic	1.07 (0.6,1.8)	0.12 (0.0,0.6)	0.40 (0.1,1.2)	1.11 (0.6,2.0)	2.62 (1.5,4.5)	4.09 (1.9,8.8)	5.83 (2.7,12.6)	10.29 (3.9,27.0)
Gulf of Mexico	5.13 (2.7,9.6)	0.50 (0.0,5.3)	1.73 (0.3,9.1)	4.90 (1.7,14.4)	12.16 (5.9,25.0)	19.46 (10.7,35.4)	27.06 (14.4,50.7)	58.64 (30.7,112.1)
Great Lakes	1.36 (0.6,2.9)	0.09 (0.0,0.3)	0.38 (0.1,1.1)	1.20 (0.5,2.6)	3.13 (1.4,6.8)	5.39 (2.3,12.6)	7.89 (3.4,18.2)	16.37 (6.7,39.8)
Inland Northeast	1.10 (0.3,4.3)	0.08 (0.0,0.7)	0.28 (0.0,1.7)	0.89 (0.2,3.8)	2.29 (0.7,7.8)	4.48 (1.1,18.0)	6.97 (1.5,32.5)	13.67 (3.2,59.2)
Inland Midwest	1.55 (0.7,3.2)	0.12 (0.0,0.6)	0.45 (0.1,1.5)	1.43 (0.6,3.4)	3.53 (1.5,8.3)	5.82 (2.2,15.5)	7.92 (2.7,23.7)	16.82 (7.0,40.3)
Inland South	2.16 (1.1,4.1)	0.24 (0.0,1.6)	0.82 (0.2,3.7)	2.31 (0.9,6.2)	5.45 (2.7,10.9)	8.74 (4.9,15.6)	11.92 (6.8,21.0)	18.64 (9.0,38.6)
Inland West	1.06 (0.3,3.9)	0.06 (0.0,0.3)	0.22 (0.1,0.7)	0.69 (0.3,1.8)	2.11 (0.7,6.2)	4.24 (1.2,15.4)	7.02 (1.6,30.7)	15.21 (2.8,83.5)

Table C-14. Freshwater fish usual fish consumption rate estimates, adults ≥21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	1.99 (1.2,3.3)	0.20 (0.0,1.1)	0.63 (0.2,2.0)	1.86 (0.9,4.0)	4.57 (2.8,7.6)	7.76 (4.9,12.3)	10.97 (6.9,17.3)	19.93 (11.4,34.7)
<b>Gender</b>								
Female	1.53 (0.9,2.6)	0.16 (0.0,0.8)	0.50 (0.2,1.4)	1.46 (0.8,2.7)	3.58 (2.1,6.1)	6.02 (3.3,11.1)	8.09 (3.8,17.3)	15.08 (6.1,37.1)
Male	2.59 (1.3,5.1)	0.28 (0.0,1.8)	0.83 (0.2,3.2)	2.45 (0.9,6.5)	5.96 (3.0,11.7)	10.19 (5.5,18.8)	13.90 (8.1,23.9)	25.12 (15.1,41.7)
<b>Age</b>								
21 to <35 yrs	1.54 (0.8,3.1)	0.17 (0.0,1.4)	0.52 (0.1,2.6)	1.45 (0.5,4.3)	3.54 (1.6,7.6)	6.03 (3.0,12.0)	8.22 (4.4,15.4)	15.38 (7.7,30.5)
35 to <50 yrs	1.77 (1.1,3.0)	0.15 (0.0,0.6)	0.47 (0.2,1.3)	1.46 (0.7,2.9)	3.93 (2.2,6.9)	7.34 (4.2,12.9)	10.46 (5.9,18.4)	19.85 (10.2,38.7)
50 to <65 yrs	2.93 (1.4,6.1)	0.35 (0.1,2.2)	1.09 (0.3,4.3)	2.99 (1.1,8.0)	6.74 (3.4,13.2)	11.00 (6.0,20.1)	14.36 (8.1,25.5)	27.06 (15.0,48.7)
65+ yrs	1.92 (1.0,3.8)	0.28 (0.0,1.6)	0.74 (0.3,2.0)	1.93 (0.9,4.0)	4.34 (1.9,10.1)	6.86 (2.6,17.9)	9.64 (3.8,24.3)	18.68 (8.2,42.7)
<b>WCA (13-49 years)</b>	1.13 (0.6,2.1)	0.08 (0.0,0.4)	0.30 (0.1,0.9)	0.97 (0.5,1.9)	2.57 (1.4,4.6)	4.53 (2.3,8.9)	6.77 (3.4,13.3)	12.64 (4.9,32.8)
<b>Income</b>								
<\$20,000	2.37 (1.2,4.8)	0.24 (0.0,1.6)	0.74 (0.2,2.9)	2.20 (0.9,5.6)	5.49 (2.8,10.7)	9.37 (5.1,17.3)	12.63 (7.3,21.7)	22.54 (12.6,40.3)
>\$20,000	1.92 (1.2,3.1)	0.20 (0.0,1.0)	0.61 (0.2,1.9)	1.79 (0.9,3.7)	4.41 (2.7,7.3)	7.40 (4.5,12.1)	10.42 (6.3,17.2)	19.28 (10.4,35.8)
Income unknown	2.12 (0.7,6.4)	0.22 (0.0,2.7)	0.66 (0.1,3.9)	1.94 (0.5,7.8)	4.99 (1.6,15.5)	9.15 (2.9,29.3)	15.21 (3.4,68.7)	22.38 (8.3,60.2)
<b>Income, finer detail</b>								
<\$20,000	2.37 (1.2,4.8)	0.24 (0.0,1.6)	0.74 (0.2,2.9)	2.20 (0.9,5.6)	5.49 (2.8,10.7)	9.37 (5.1,17.3)	12.63 (7.3,21.7)	22.54 (12.6,40.3)
\$20k-\$45k	1.87 (0.8,4.1)	0.21 (0.1,0.7)	0.61 (0.3,1.4)	1.71 (0.8,3.7)	4.21 (1.7,10.4)	7.21 (2.8,18.6)	10.15 (3.8,27.1)	18.53 (5.9,58.0)
\$45k-\$75k	1.91 (0.9,4.1)	0.20 (0.0,1.7)	0.65 (0.1,3.3)	1.92 (0.6,6.4)	4.62 (2.0,10.7)	7.38 (3.8,14.4)	10.37 (5.2,20.5)	17.84 (8.5,37.4)
\$75k+	1.94 (1.0,3.9)	0.18 (0.0,1.0)	0.57 (0.2,2.0)	1.71 (0.7,4.4)	4.27 (2.1,8.6)	7.38 (4.0,13.5)	10.59 (5.9,19.1)	19.93 (10.9,36.4)
>\$20,000	2.34 (0.5,11.2)	0.26 (0.0,6.0)	0.79 (0.1,9.6)	2.19 (0.3,15.3)	5.33 (1.0,27.4)	9.33 (1.9,45.0)	14.03 (2.7,74.2)	20.58 (6.9,61.4)
Inc Ref/DK	1.85 (0.7,4.6)	0.20 (0.0,1.5)	0.57 (0.1,2.3)	1.76 (0.6,5.3)	4.45 (1.8,11.0)	7.72 (3.0,19.8)	10.98 (4.6,26.2)	17.57 (6.0,51.3)
Inc missing	2.71 (0.2,40.2)	0.30 (0.0,18.0)	0.84 (0.0,23.5)	2.50 (0.1,50.6)	6.07 (0.4,90.0)	14.58 (0.4,478.3)	19.47 (0.7,522.9)	28.82 (2.1,395.7)
<b>Race/Ethnicity</b>								
Mexican American	2.18 (1.0,4.6)	0.34 (0.1,1.7)	0.95 (0.3,2.8)	2.40 (1.2,4.9)	5.31 (2.5,11.3)	8.64 (3.9,19.3)	11.74 (5.0,27.5)	17.57 (4.6,66.8)
Other Hispanic	2.95 (1.0,8.9)	0.17 (0.0,0.7)	0.60 (0.2,1.9)	2.07 (0.8,5.2)	7.05 (2.2,22.8)	12.37 (3.8,40.5)	19.03 (4.9,73.4)	39.93 (7.0,228.1)
White	1.22 (0.7,2.2)	0.16 (0.0,0.9)	0.46 (0.1,1.6)	1.28 (0.6,2.9)	3.01 (1.7,5.5)	4.81 (2.7,8.7)	6.42 (3.3,12.4)	11.01 (5.0,24.5)
Black	3.51 (2.1,5.9)	0.54 (0.2,1.8)	1.46 (0.7,3.1)	3.74 (2.2,6.5)	8.12 (4.5,14.7)	12.96 (6.6,25.4)	17.24 (8.2,36.4)	30.54 (14.2,65.4)
Other race	6.90 (2.3,20.8)	0.97 (0.1,15.2)	2.77 (0.3,23.4)	7.04 (1.6,31.5)	15.33 (5.5,43.0)	26.03 (9.8,69.0)	36.96 (14.9,91.7)	80.81 (22.4,292.0)

Table C-14. Freshwater fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.80 (0.9,3.4)	0.19 (0.0,0.7)	0.60 (0.2,1.5)	1.74 (0.9,3.4)	4.12 (1.9,8.8)	6.56 (2.5,17.0)	8.74 (2.9,26.1)	18.25 (7.8,42.6)
Northeast	1.30 (0.5,3.4)	0.15 (0.0,1.6)	0.45 (0.1,2.7)	1.19 (0.4,4.0)	2.83 (1.2,6.7)	5.04 (2.1,11.8)	7.29 (3.1,17.4)	13.79 (6.0,31.8)
South	2.83 (1.6,5.0)	0.34 (0.1,1.8)	1.04 (0.3,3.6)	2.82 (1.2,6.5)	6.65 (3.6,12.2)	11.03 (6.4,18.9)	14.62 (8.6,24.8)	26.24 (14.3,48.1)
West	1.45 (0.6,3.4)	0.14 (0.0,0.8)	0.42 (0.1,1.5)	1.24 (0.5,3.2)	3.19 (1.4,7.1)	5.72 (2.5,13.1)	8.24 (3.5,19.6)	15.57 (5.9,41.2)
<b>Coastal Status</b>								
Noncoastal	1.92 (1.1,3.4)	0.20 (0.0,1.2)	0.64 (0.2,2.3)	1.87 (0.8,4.4)	4.54 (2.5,8.2)	7.55 (4.5,12.8)	10.48 (6.1,17.8)	18.35 (9.7,34.7)
Coastal	2.11 (1.3,3.5)	0.20 (0.0,1.0)	0.62 (0.2,1.8)	1.85 (0.9,3.7)	4.63 (2.8,7.8)	8.16 (4.9,13.6)	11.98 (7.2,20.0)	22.66 (12.4,41.4)
<b>Coastal/Inland Region</b>								
Pacific	1.50 (0.8,2.8)	0.18 (0.0,1.0)	0.53 (0.2,1.8)	1.48 (0.6,3.4)	3.56 (1.9,6.7)	5.73 (3.2,10.2)	7.91 (4.4,14.3)	14.83 (7.6,29.0)
Atlantic	1.14 (0.6,2.1)	0.15 (0.0,0.7)	0.45 (0.2,1.2)	1.21 (0.7,2.1)	2.76 (1.4,5.3)	4.27 (1.7,10.5)	6.10 (2.6,14.2)	10.38 (3.4,31.9)
Gulf of Mexico	6.70 (3.6,12.3)	1.08 (0.1,10.7)	2.67 (0.6,11.7)	6.82 (2.5,18.5)	15.00 (8.1,27.8)	23.48 (12.8,43.0)	35.67 (19.7,64.5)	74.26 (34.8,158.6)
Great Lakes	1.82 (0.9,3.5)	0.23 (0.0,1.4)	0.62 (0.2,2.0)	1.74 (0.8,3.8)	4.14 (2.1,8.1)	7.32 (3.7,14.4)	9.71 (4.6,20.5)	20.60 (8.5,50.1)
Inland Northeast	1.39 (0.3,6.7)	0.15 (0.0,2.2)	0.44 (0.1,3.5)	1.15 (0.2,5.3)	2.87 (0.7,11.5)	5.52 (1.1,26.7)	8.06 (1.6,40.8)	15.13 (3.3,69.7)
Inland Midwest	1.78 (0.8,3.9)	0.18 (0.0,0.8)	0.60 (0.2,1.7)	1.73 (0.8,4.0)	4.08 (1.6,10.2)	6.40 (2.1,19.6)	8.59 (2.5,29.7)	17.85 (6.8,46.6)
Inland South	2.61 (1.4,5.0)	0.41 (0.1,2.9)	1.18 (0.3,5.0)	2.98 (1.1,7.9)	6.40 (3.3,12.3)	10.33 (5.7,18.7)	13.00 (7.3,23.3)	20.16 (8.9,45.6)
Inland West	1.38 (0.3,5.7)	0.11 (0.0,0.7)	0.33 (0.1,1.1)	0.98 (0.3,2.9)	2.82 (0.8,9.9)	5.67 (1.2,25.9)	8.71 (1.7,45.3)	16.37 (3.0,88.8)

Table C-15. Freshwater fish usual fish consumption rate estimates, youth <21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	0.82 (0.5,1.5)	0.04 (0.0,0.2)	0.16 (0.1,0.5)	0.62 (0.3,1.4)	1.85 (1.0,3.5)	3.41 (1.9,6.2)	5.16 (2.9,9.2)	10.68 (5.6,20.2)
<b>Gender</b>								
Female	0.55 (0.3,1.1)	0.02 (0.0,0.1)	0.10 (0.0,0.3)	0.39 (0.2,0.9)	1.23 (0.6,2.4)	2.30 (1.1,4.7)	3.35 (1.5,7.4)	7.77 (3.7,16.3)
Male	1.10 (0.6,2.0)	0.07 (0.0,0.4)	0.26 (0.1,0.8)	0.88 (0.4,2.0)	2.57 (1.3,4.9)	4.64 (2.6,8.4)	6.67 (3.7,12.1)	13.23 (7.0,24.9)
<b>Age</b>								
1 to <3 yrs	0.81 (0.4,1.6)	0.04 (0.0,0.5)	0.15 (0.0,0.8)	0.54 (0.2,1.6)	1.79 (0.7,4.3)	3.47 (1.6,7.4)	5.33 (2.5,11.3)	10.68 (5.3,21.6)
3 to <6 yrs	0.79 (0.3,1.9)	0.02 (0.0,0.2)	0.16 (0.0,1.5)	0.66 (0.1,3.4)	1.74 (0.7,4.2)	3.32 (1.5,7.5)	4.87 (2.2,11.0)	9.73 (3.5,27.2)
6 to <11 yrs	0.83 (0.4,1.6)	0.07 (0.0,0.5)	0.24 (0.1,1.0)	0.76 (0.3,2.1)	2.01 (1.0,4.2)	3.46 (1.7,7.0)	4.99 (2.3,10.7)	8.61 (3.2,23.3)
11 to <16 yrs	0.97 (0.4,2.1)	0.05 (0.0,0.3)	0.21 (0.0,1.0)	0.74 (0.2,2.2)	2.31 (0.9,5.8)	4.17 (1.9,9.3)	6.08 (2.8,13.1)	12.97 (5.9,28.5)
16 to <18 yrs	0.64 (0.1,3.3)	0.03 (0.0,0.3)	0.10 (0.0,1.1)	0.38 (0.0,3.7)	1.23 (0.2,8.9)	2.72 (0.6,12.3)	4.23 (1.0,18.1)	10.17 (2.8,36.3)
18 to <21 yrs	0.78 (0.3,2.2)	0.02 (0.0,0.1)	0.08 (0.0,0.2)	0.38 (0.1,1.4)	1.39 (0.3,5.5)	2.93 (0.8,10.4)	4.83 (1.6,14.8)	11.99 (4.4,32.7)
<b>Income</b>								
<\$20,000	1.19 (0.6,2.3)	0.06 (0.0,0.4)	0.24 (0.1,0.9)	0.90 (0.3,2.5)	2.75 (1.3,5.9)	5.23 (2.6,10.6)	7.86 (3.9,15.7)	14.19 (7.3,27.5)
>\$20,000	0.73 (0.4,1.4)	0.03 (0.0,0.2)	0.15 (0.0,0.5)	0.55 (0.2,1.3)	1.62 (0.8,3.3)	3.01 (1.5,6.1)	4.48 (2.2,9.3)	9.20 (4.1,20.7)
Income unknown	1.08 (0.3,3.5)	0.03 (0.0,0.2)	0.20 (0.0,1.2)	0.75 (0.2,3.1)	2.64 (0.6,12.2)	4.69 (1.2,18.4)	7.81 (1.7,36.9)	12.87 (3.4,48.3)
<b>Income, finer detail</b>								
<\$20,000	1.19 (0.6,2.3)	0.06 (0.0,0.4)	0.24 (0.1,0.9)	0.90 (0.3,2.5)	2.75 (1.3,5.9)	5.23 (2.6,10.6)	7.86 (3.9,15.7)	14.19 (7.3,27.5)
\$20k-\$45k	0.86 (0.4,2.1)	0.04 (0.0,0.2)	0.18 (0.1,0.5)	0.66 (0.3,1.5)	1.95 (0.8,4.5)	3.46 (1.3,9.0)	5.07 (1.9,13.8)	11.43 (4.8,27.0)
\$45k-\$75k	0.64 (0.3,1.3)	0.03 (0.0,0.2)	0.13 (0.0,0.5)	0.46 (0.2,1.1)	1.34 (0.6,2.9)	2.67 (1.3,5.5)	4.21 (2.0,8.7)	8.50 (3.8,19.1)
\$75k+	0.66 (0.3,1.4)	0.03 (0.0,0.2)	0.14 (0.0,0.5)	0.49 (0.2,1.3)	1.53 (0.7,3.5)	2.76 (1.3,6.1)	4.15 (1.9,9.0)	7.49 (2.6,21.5)
>\$20,000	0.78 (0.2,2.9)	0.04 (0.0,0.3)	0.18 (0.0,1.5)	0.62 (0.1,3.0)	2.01 (0.4,9.4)	3.37 (0.9,12.8)	4.54 (1.3,16.0)	9.33 (2.1,42.0)
Inc Ref/DK	1.01 (0.3,3.1)	0.04 (0.0,0.2)	0.17 (0.0,0.7)	0.65 (0.2,2.0)	1.94 (0.8,4.9)	3.89 (1.5,10.4)	6.46 (2.1,19.8)	19.01 (3.7,97.2)
Inc missing	1.17 (0.1,17.2)	0.03 (0.0,0.4)	0.26 (0.0,8.2)	1.15 (0.0,31.4)	2.79 (0.2,46.0)	5.28 (0.3,82.7)	7.85 (0.4,139.4)	11.06 (1.1,114.8)
<b>Race/Ethnicity</b>								
Mexican American	1.12 (0.5,2.4)	0.11 (0.0,1.1)	0.34 (0.1,1.8)	1.05 (0.3,3.4)	2.70 (1.2,6.2)	4.73 (2.2,10.0)	6.48 (3.3,12.8)	11.51 (5.8,22.8)
Other Hispanic	1.12 (0.2,5.1)	0.02 (0.0,0.1)	0.11 (0.0,0.5)	0.65 (0.2,2.6)	2.54 (0.6,9.9)	5.59 (1.2,26.0)	7.86 (1.5,40.4)	18.85 (2.6,135.1)
White	0.40 (0.2,1.0)	0.02 (0.0,0.1)	0.10 (0.0,0.3)	0.34 (0.1,0.9)	1.00 (0.4,2.4)	1.78 (0.7,4.5)	2.55 (1.0,6.6)	4.60 (1.4,15.0)
Black	1.91 (0.9,4.0)	0.17 (0.0,0.6)	0.55 (0.2,1.4)	1.64 (0.8,3.6)	4.36 (2.0,9.3)	8.14 (3.8,17.2)	11.83 (5.6,25.2)	22.67 (10.4,49.4)
Other race	1.20 (0.4,3.3)	0.04 (0.0,0.4)	0.17 (0.0,0.8)	0.79 (0.2,2.7)	3.05 (1.0,9.7)	5.83 (2.0,17.2)	8.40 (2.8,25.6)	16.43 (4.8,55.7)

Table C-15. Freshwater fish usual fish consumption rate estimates, youth <21 years (continued)

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.80 (0.3,2.1)	0.03 (0.0,0.2)	0.14 (0.0,0.6)	0.56 (0.2,1.9)	1.73 (0.6,4.9)	3.16 (1.2,8.6)	4.66 (1.7,13.0)	9.83 (3.2,30.1)
Northeast	0.59 (0.2,1.4)	0.02 (0.0,0.1)	0.11 (0.0,0.6)	0.44 (0.1,1.8)	1.35 (0.5,3.9)	2.52 (1.0,6.3)	3.87 (1.5,9.9)	7.69 (3.2,18.4)
South	1.08 (0.5,2.2)	0.07 (0.0,0.4)	0.26 (0.1,1.1)	0.89 (0.3,2.5)	2.52 (1.2,5.5)	4.62 (2.2,9.6)	6.80 (3.2,14.5)	13.25 (6.3,28.0)
West	0.64 (0.2,1.8)	0.03 (0.0,0.2)	0.13 (0.0,0.4)	0.45 (0.2,1.2)	1.43 (0.6,3.5)	2.71 (1.1,6.7)	4.23 (1.7,10.2)	8.99 (3.2,25.3)
<b>Coastal Status</b>								
Noncoastal	0.76 (0.4,1.5)	0.03 (0.0,0.1)	0.13 (0.0,0.4)	0.49 (0.2,1.3)	1.60 (0.7,3.6)	3.06 (1.5,6.4)	4.77 (2.4,9.6)	10.87 (5.6,21.1)
Coastal	0.92 (0.5,1.8)	0.06 (0.0,0.3)	0.23 (0.1,0.7)	0.79 (0.4,1.7)	2.22 (1.2,4.1)	3.97 (2.0,7.7)	5.77 (2.7,12.2)	10.60 (3.8,29.5)
<b>Coastal/Inland Region</b>								
Pacific	0.91 (0.3,2.4)	0.07 (0.0,0.3)	0.25 (0.1,0.8)	0.82 (0.3,2.0)	2.32 (1.1,5.1)	4.14 (1.8,9.5)	5.81 (2.2,15.2)	9.94 (2.6,38.6)
Atlantic	0.87 (0.4,2.0)	0.06 (0.0,0.5)	0.24 (0.0,1.7)	0.83 (0.2,3.5)	2.04 (0.8,5.1)	3.63 (1.6,8.5)	5.12 (2.2,12.0)	9.60 (4.1,22.6)
Gulf of Mexico	1.67 (0.5,5.5)	0.10 (0.0,1.3)	0.40 (0.1,2.9)	1.46 (0.3,6.8)	3.95 (1.0,14.9)	7.34 (2.1,26.1)	10.22 (3.1,33.4)	21.89 (7.4,65.1)
Great Lakes	0.35 (0.0,6.9)	0.02 (0.0,0.1)	0.09 (0.0,0.6)	0.30 (0.0,3.1)	0.83 (0.0,14.1)	1.51 (0.1,31.6)	2.36 (0.1,44.7)	4.34 (0.2,117.5)
Inland Northeast	0.34 (0.1,1.4)	0.02 (0.0,0.1)	0.06 (0.0,0.3)	0.20 (0.0,0.9)	0.63 (0.1,3.0)	1.25 (0.3,5.9)	1.93 (0.4,9.5)	5.99 (1.5,24.2)
Inland Midwest	0.93 (0.4,2.5)	0.03 (0.0,0.3)	0.16 (0.0,1.0)	0.68 (0.1,3.1)	2.04 (0.6,6.6)	3.52 (1.3,9.5)	5.23 (2.1,13.3)	11.49 (4.5,29.5)
Inland South	1.01 (0.4,2.5)	0.06 (0.0,0.4)	0.24 (0.1,1.1)	0.83 (0.3,2.6)	2.38 (0.9,6.2)	4.39 (1.8,10.9)	6.52 (2.6,16.3)	12.88 (5.3,31.5)
Inland West	0.42 (0.1,2.0)	0.02 (0.0,0.1)	0.07 (0.0,0.3)	0.26 (0.1,0.9)	0.72 (0.2,3.3)	1.29 (0.2,8.0)	2.09 (0.4,12.2)	6.05 (1.1,32.5)

Table C-16. Estuarine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	5.18 (4.1,6.6)	0.73 (0.4,1.3)	2.44 (1.4,4.1)	6.35 (4.5,9.0)	13.16 (10.5,16.6)	19.32 (14.8,25.1)	24.45 (17.9,33.4)	37.02 (24.5,56.0)
<b>Gender</b>								
Female	4.44 (3.4,5.8)	0.67 (0.4,1.2)	2.17 (1.2,3.8)	5.54 (3.8,8.0)	11.21 (8.7,14.4)	16.28 (12.4,21.4)	20.66 (14.9,28.7)	31.17 (19.7,49.2)
Male	6.06 (4.8,7.7)	0.81 (0.5,1.3)	2.83 (1.7,4.7)	7.45 (5.2,10.7)	15.46 (12.1,19.8)	22.62 (17.1,29.9)	28.35 (20.7,38.9)	44.50 (26.5,74.8)
<b>Age</b>								
1 to <3 yrs	1.39 (0.6,3.1)	0.13 (0.1,0.3)	0.41 (0.2,0.8)	1.26 (0.7,2.1)	3.09 (1.7,5.7)	5.40 (2.5,11.9)	8.35 (2.7,25.5)	16.46 (3.6,74.5)
3 to <6 yrs	1.55 (1.0,2.5)	0.18 (0.1,0.4)	0.59 (0.3,1.1)	1.73 (1.0,3.1)	3.94 (2.3,6.7)	6.37 (4.0,10.1)	8.80 (5.5,14.2)	13.35 (8.1,21.9)
6 to <11 yrs	2.05 (1.3,3.2)	0.19 (0.1,0.5)	0.64 (0.3,1.4)	2.02 (1.0,4.0)	5.12 (3.1,8.4)	8.54 (5.4,13.6)	11.65 (7.3,18.5)	20.96 (10.9,40.4)
11 to <16 yrs	2.52 (1.4,4.5)	0.28 (0.1,0.7)	0.91 (0.4,2.0)	2.79 (1.4,5.4)	6.38 (3.4,12.1)	10.49 (6.3,17.5)	13.48 (7.6,23.9)	21.42 (11.5,39.9)
16 to <18 yrs	2.59 (1.5,4.4)	0.24 (0.1,0.8)	0.76 (0.2,2.5)	2.39 (0.9,6.5)	6.22 (3.0,13.1)	11.09 (6.9,17.8)	15.43 (9.9,24.0)	30.44 (13.5,68.8)
18 to <21 yrs	4.66 (2.7,8.1)	0.62 (0.3,1.3)	1.98 (1.1,3.5)	5.58 (3.3,9.4)	12.43 (6.5,23.6)	17.81 (10.0,31.8)	22.26 (12.4,40.0)	36.21 (17.2,76.2)
21 to <35 yrs	6.60 (5.0,8.7)	1.17 (0.7,1.9)	3.39 (2.4,4.8)	7.92 (6.2,10.1)	15.85 (11.9,21.0)	23.32 (16.3,33.3)	29.72 (19.8,44.5)	48.45 (25.3,93.0)
35 to <50 yrs	6.51 (4.8,8.9)	1.45 (0.8,2.6)	3.62 (2.1,6.3)	8.12 (5.4,12.2)	15.71 (11.4,21.6)	22.11 (15.7,31.2)	27.59 (19.0,40.0)	40.45 (25.7,63.7)
50 to <65 yrs	6.51 (4.8,8.9)	1.57 (0.6,3.9)	3.96 (2.1,7.4)	8.54 (6.0,12.2)	15.51 (11.9,20.2)	21.31 (15.9,28.6)	25.97 (18.5,36.4)	36.35 (24.2,54.7)
65+ yrs	4.77 (3.3,6.9)	0.91 (0.4,2.3)	2.41 (1.1,5.4)	5.81 (3.4,10.1)	11.94 (8.6,16.5)	17.48 (12.7,24.1)	21.78 (15.1,31.5)	33.63 (18.1,62.7)
<b>Income</b>								
<\$20,000	4.66 (3.7,5.9)	0.59 (0.3,1.0)	2.05 (1.2,3.4)	5.59 (4.0,7.9)	11.65 (8.9,15.2)	16.65 (12.3,22.6)	21.59 (16.2,28.8)	35.25 (23.7,52.5)
>\$20,000	5.20 (4.0,6.7)	0.76 (0.4,1.3)	2.47 (1.4,4.4)	6.38 (4.3,9.4)	13.22 (10.4,16.9)	19.47 (14.7,25.8)	24.55 (17.7,34.0)	36.92 (24.1,56.6)
Income unknown	7.13 (4.2,12.0)	1.02 (0.5,1.9)	3.83 (1.9,7.7)	9.72 (5.1,18.6)	18.37 (10.7,31.5)	25.19 (15.3,41.5)	31.91 (17.9,57.0)	42.98 (24.0,77.0)
<b>Income, finer detail</b>								
<\$20,000	4.66 (3.7,5.9)	0.59 (0.3,1.0)	2.05 (1.2,3.4)	5.59 (4.0,7.9)	11.65 (8.9,15.2)	16.65 (12.3,22.6)	21.59 (16.2,28.8)	35.25 (23.7,52.5)
\$20k-\$45k	4.52 (3.5,5.8)	0.62 (0.3,1.2)	2.10 (1.3,3.5)	5.49 (3.9,7.7)	11.52 (8.9,14.9)	17.03 (12.4,23.3)	21.58 (15.1,30.9)	33.75 (21.0,54.3)
\$45k-\$75k	4.66 (3.4,6.3)	0.64 (0.3,1.3)	2.19 (1.2,4.0)	5.73 (3.8,8.7)	11.89 (8.9,15.9)	17.72 (12.8,24.6)	22.11 (15.5,31.5)	33.10 (21.0,52.3)
\$75k+	6.09 (4.5,8.2)	0.98 (0.5,1.8)	3.05 (1.5,6.0)	7.54 (4.7,12.2)	15.35 (11.6,20.3)	22.20 (16.7,29.5)	28.20 (20.0,39.7)	42.45 (25.8,69.9)
>\$20,000	5.77 (3.1,10.8)	1.03 (0.5,2.1)	3.10 (1.7,5.7)	7.56 (4.2,13.5)	14.88 (6.8,32.6)	20.22 (9.2,44.2)	24.68 (10.7,56.8)	33.99 (14.3,80.6)
Inc Ref/DK	6.44 (4.0,10.3)	0.95 (0.5,1.8)	3.56 (2.0,6.3)	8.34 (5.3,13.1)	16.87 (9.7,29.3)	23.67 (13.2,42.4)	27.08 (16.0,45.9)	41.18 (20.1,84.5)
Inc missing	8.45 (2.7,26.4)	1.16 (0.3,4.5)	4.34 (1.1,17.3)	11.46 (3.2,41.5)	21.36 (7.3,62.3)	31.91 (9.6,106.0)	38.06 (12.5,116.0)	48.18 (18.8,123.7)
<b>Race/Ethnicity</b>								
Mexican American	5.73 (4.0,8.2)	0.77 (0.4,1.3)	2.69 (1.6,4.5)	7.32 (4.9,10.9)	14.79 (10.5,20.9)	21.06 (14.6,30.4)	26.10 (17.6,38.7)	39.91 (26.3,60.5)
Other Hispanic	5.97 (4.2,8.5)	0.63 (0.3,1.2)	2.51 (1.3,4.7)	6.97 (4.0,12.3)	15.57 (10.7,22.6)	23.35 (15.1,36.1)	29.69 (18.2,48.5)	43.15 (23.9,78.0)
White	4.39 (3.2,6.0)	0.64 (0.4,1.1)	2.11 (1.2,3.9)	5.42 (3.5,8.4)	11.15 (8.3,15.0)	16.33 (12.3,21.6)	20.72 (15.3,28.1)	30.77 (20.8,45.6)
Black	5.40 (3.7,7.8)	1.00 (0.5,2.0)	3.08 (1.7,5.6)	7.15 (4.7,10.8)	13.27 (9.5,18.6)	18.31 (12.9,26.0)	22.43 (15.6,32.2)	33.24 (21.9,50.5)
Other race	11.53 (6.2,21.4)	2.08 (1.1,4.0)	6.36 (3.9,10.3)	14.94 (8.4,26.5)	28.11 (14.4,55.0)	39.90 (19.0,83.8)	52.33 (20.5,133.5)	73.44 (29.0,185.8)

Table C-16. Estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.80 (1.7,4.5)	0.42 (0.2,0.8)	1.33 (0.7,2.5)	3.26 (1.8,5.9)	6.59 (3.8,11.4)	10.08 (6.3,16.2)	13.20 (8.4,20.8)	22.01 (13.3,36.5)
Northeast	6.43 (5.2,8.0)	0.91 (0.4,1.8)	3.40 (1.8,6.3)	8.72 (6.7,11.3)	16.25 (13.1,20.2)	23.10 (17.1,31.2)	27.73 (20.1,38.2)	39.07 (25.7,59.5)
South	5.95 (4.3,8.1)	0.96 (0.5,1.7)	3.05 (1.8,5.1)	7.43 (5.2,10.7)	14.61 (10.6,20.1)	21.16 (14.9,30.1)	26.47 (18.1,38.6)	42.33 (23.0,77.8)
West	5.71 (4.1,7.9)	0.86 (0.4,1.7)	2.89 (1.6,5.1)	7.09 (4.7,10.6)	14.20 (10.2,19.8)	20.70 (14.0,30.6)	25.95 (16.5,40.8)	39.14 (21.8,70.1)
<b>Coastal Status</b>								
Noncoastal	4.16 (3.2,5.4)	0.58 (0.3,1.1)	1.93 (1.1,3.4)	4.99 (3.3,7.6)	10.49 (8.0,13.8)	15.59 (11.6,21.0)	20.19 (14.1,29.0)	31.44 (18.7,52.9)
Coastal	6.77 (5.0,9.2)	1.11 (0.6,2.2)	3.55 (1.9,6.7)	8.67 (5.8,13.0)	16.76 (12.6,22.3)	23.86 (17.7,32.2)	29.47 (21.3,40.7)	46.68 (27.3,79.9)
<b>Coastal/Inland Region</b>								
Pacific	6.27 (3.9,10.1)	0.97 (0.5,2.0)	3.24 (1.6,6.7)	7.92 (4.7,13.4)	15.79 (9.8,25.4)	22.03 (13.0,37.3)	28.59 (15.6,52.5)	42.53 (20.8,86.8)
Atlantic	6.65 (3.9,11.4)	1.31 (0.4,4.1)	3.98 (1.6,10.0)	8.86 (4.6,16.9)	16.22 (10.5,25.2)	22.05 (14.7,33.1)	26.04 (17.0,39.8)	38.26 (24.8,59.0)
Gulf of Mexico	10.46 (5.8,19.0)	1.93 (0.5,6.8)	6.03 (2.4,15.0)	13.84 (7.3,26.2)	25.08 (15.0,42.0)	34.75 (20.8,58.0)	47.02 (23.2,95.3)	66.74 (31.9,139.5)
Great Lakes	4.58 (3.1,6.9)	0.60 (0.3,1.3)	1.96 (0.8,4.7)	5.12 (2.8,9.3)	10.79 (7.0,16.6)	17.52 (11.3,27.2)	23.39 (13.9,39.2)	38.79 (19.4,77.4)
Inland Northeast	6.11 (4.5,8.2)	0.67 (0.2,1.9)	2.78 (1.2,6.4)	8.17 (5.9,11.4)	16.07 (10.7,24.1)	23.56 (13.4,41.4)	28.49 (15.8,51.3)	39.78 (21.7,72.9)
Inland Midwest	2.31 (1.5,3.5)	0.39 (0.2,0.7)	1.22 (0.7,2.1)	2.91 (1.9,4.5)	5.62 (3.6,8.8)	8.24 (5.4,12.6)	10.49 (6.6,16.7)	15.99 (9.5,26.9)
Inland South	4.51 (3.4,5.9)	0.74 (0.5,1.2)	2.38 (1.6,3.6)	5.68 (4.3,7.6)	10.91 (8.2,14.5)	15.79 (11.1,22.4)	19.91 (12.9,30.6)	29.95 (17.2,52.3)
Inland West	5.15 (3.6,7.5)	0.80 (0.4,1.7)	2.52 (1.3,4.9)	6.26 (3.9,10.1)	12.82 (8.9,18.5)	18.71 (12.2,28.6)	24.19 (14.2,41.1)	36.99 (18.4,74.5)

Table C-17. Estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	6.27 (5.0,7.9)	1.29 (0.7,2.4)	3.42 (2.0,5.7)	7.80 (5.6,10.8)	15.05 (11.9,19.0)	21.63 (16.3,28.7)	26.92 (19.4,37.4)	40.69 (25.5,64.9)
<b>Gender</b>								
Female	5.17 (4.0,6.7)	1.09 (0.6,2.0)	2.87 (1.7,4.9)	6.58 (4.8,9.1)	12.55 (9.8,16.0)	17.82 (13.3,23.9)	22.16 (15.7,31.4)	32.48 (20.5,51.5)
Male	7.67 (6.0,9.9)	1.65 (0.9,3.2)	4.29 (2.5,7.3)	9.65 (7.0,13.3)	18.26 (14.1,23.6)	25.80 (19.1,34.9)	32.46 (22.4,46.9)	50.19 (27.4,91.8)
<b>Age</b>								
21 to <35 yrs	6.60 (5.0,8.7)	1.17 (0.7,1.9)	3.39 (2.4,4.8)	7.92 (6.2,10.1)	15.85 (11.9,21.0)	23.32 (16.3,33.3)	29.72 (19.8,44.5)	48.45 (25.3,93.0)
35 to <50 yrs	6.51 (4.8,8.9)	1.45 (0.8,2.6)	3.62 (2.1,6.3)	8.12 (5.4,12.2)	15.71 (11.4,21.6)	22.11 (15.7,31.2)	27.59 (19.0,40.0)	40.45 (25.7,63.7)
50 to <65 yrs	6.51 (4.8,8.9)	1.57 (0.6,3.9)	3.96 (2.1,7.4)	8.54 (6.0,12.2)	15.51 (11.9,20.2)	21.31 (15.9,28.6)	25.97 (18.5,36.4)	36.35 (24.2,54.7)
65+ yrs	4.77 (3.3,6.9)	0.91 (0.4,2.3)	2.41 (1.1,5.4)	5.81 (3.4,10.1)	11.94 (8.6,16.5)	17.48 (12.7,24.1)	21.78 (15.1,31.5)	33.63 (18.1,62.7)
<b>WCA (13-49 years)</b>	4.81 (3.8,6.1)	0.81 (0.5,1.3)	2.49 (1.6,3.9)	6.06 (4.5,8.1)	11.96 (9.3,15.3)	17.24 (13.0,22.8)	21.55 (15.7,29.5)	32.23 (21.9,47.5)
<b>Income</b>								
<\$20,000	5.62 (4.4,7.2)	0.93 (0.5,1.7)	2.83 (1.7,4.7)	6.93 (5.1,9.5)	13.33 (10.1,17.6)	19.03 (14.1,25.7)	24.77 (18.1,33.8)	42.62 (22.1,82.3)
>\$20,000	6.30 (4.9,8.1)	1.35 (0.7,2.6)	3.47 (2.0,6.1)	7.86 (5.5,11.2)	15.21 (11.9,19.4)	21.73 (16.2,29.2)	27.04 (19.1,38.2)	39.86 (25.6,62.1)
Income unknown	8.37 (5.0,14.0)	1.84 (0.8,4.0)	5.13 (2.8,9.4)	11.18 (6.5,19.3)	20.54 (11.8,35.6)	27.94 (16.1,48.5)	35.10 (17.8,69.1)	45.20 (24.2,84.3)
<b>Income, finer detail</b>								
<\$20,000	5.62 (4.4,7.2)	0.93 (0.5,1.7)	2.83 (1.7,4.7)	6.93 (5.1,9.5)	13.33 (10.1,17.6)	19.03 (14.1,25.7)	24.77 (18.1,33.8)	42.62 (22.1,82.3)
\$20k-\$45k	5.41 (4.2,7.0)	1.05 (0.5,2.0)	2.88 (1.7,4.8)	6.72 (4.9,9.2)	13.08 (10.1,16.9)	18.98 (13.6,26.4)	24.00 (16.3,35.3)	38.34 (21.2,69.4)
\$45k-\$75k	5.67 (4.2,7.6)	1.18 (0.6,2.3)	3.12 (1.9,5.2)	7.07 (4.9,10.2)	13.76 (10.3,18.4)	19.92 (13.9,28.5)	24.57 (16.5,36.6)	36.13 (22.0,59.3)
\$75k+	7.45 (5.5,10.2)	1.79 (0.8,4.1)	4.36 (2.3,8.3)	9.38 (6.1,14.4)	17.61 (13.2,23.4)	25.08 (18.4,34.1)	30.66 (21.6,43.4)	45.85 (27.1,77.6)
>\$20,000	6.62 (3.7,11.9)	1.50 (0.7,3.3)	3.79 (1.9,7.4)	8.82 (5.1,15.3)	16.38 (7.4,36.1)	21.62 (10.0,46.7)	27.37 (10.6,70.6)	34.49 (15.5,76.6)
Inc Ref/DK	7.54 (4.7,12.2)	1.58 (0.8,2.9)	4.56 (2.8,7.5)	10.31 (6.1,17.5)	18.37 (10.9,30.9)	24.69 (14.2,43.0)	30.61 (16.4,57.0)	41.64 (20.4,85.0)
Inc missing	10.25 (3.3,32.2)	2.38 (0.4,13.0)	6.65 (1.6,27.2)	13.17 (4.4,39.0)	23.90 (8.3,69.1)	36.35 (9.8,135.1)	45.20 (11.1,184.6)	57.11 (16.8,193.7)
<b>Race/Ethnicity</b>								
Mexican American	7.85 (5.5,11.2)	1.69 (0.9,3.1)	4.81 (3.0,7.8)	10.22 (7.0,15.0)	18.43 (12.9,26.4)	25.58 (17.7,36.9)	31.43 (21.4,46.1)	46.77 (30.3,72.3)
Other Hispanic	8.36 (5.5,12.7)	1.76 (1.0,3.1)	4.64 (2.8,7.7)	10.11 (6.5,15.7)	19.55 (12.9,29.6)	28.64 (16.5,49.8)	36.53 (18.4,72.6)	54.82 (21.9,137.5)
White	5.24 (3.8,7.2)	1.13 (0.6,2.2)	2.93 (1.6,5.3)	6.62 (4.4,10.0)	12.70 (9.5,17.1)	18.11 (13.6,24.1)	22.62 (16.5,31.1)	33.30 (21.8,50.9)
Black	6.58 (4.9,8.9)	1.65 (0.8,3.2)	4.20 (2.6,6.8)	8.66 (6.1,12.3)	15.39 (11.5,20.6)	20.80 (15.1,28.7)	25.16 (17.5,36.2)	35.80 (22.8,56.3)
Other race	13.68 (7.8,23.9)	3.36 (1.9,5.9)	8.71 (5.2,14.7)	18.04 (10.1,32.2)	30.94 (17.5,54.8)	44.50 (21.3,92.9)	57.03 (23.3,139.3)	79.90 (30.5,209.2)

Table C-17. Estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	3.19 (2.0,5.1)	0.71 (0.3,1.5)	1.76 (0.9,3.5)	3.74 (2.0,7.0)	7.24 (4.4,11.8)	10.57 (6.8,16.5)	13.72 (8.9,21.0)	23.22 (13.6,39.8)
Northeast	7.91 (6.4,9.8)	1.95 (1.0,3.8)	5.03 (3.2,8.0)	10.62 (8.3,13.5)	18.73 (14.8,23.7)	25.31 (18.6,34.5)	30.67 (21.2,44.4)	41.58 (27.2,63.5)
South	7.22 (5.3,9.8)	1.66 (0.9,3.1)	4.24 (2.7,6.7)	9.00 (6.3,12.9)	17.02 (12.3,23.5)	23.92 (16.7,34.3)	29.47 (19.9,43.6)	47.57 (23.7,95.7)
West	7.03 (5.0,9.8)	1.68 (0.9,3.3)	4.09 (2.4,7.1)	8.93 (6.3,12.7)	16.42 (11.6,23.3)	23.00 (15.3,34.6)	28.92 (17.6,47.5)	42.22 (23.6,75.4)
<b>Coastal Status</b>								
Noncoastal	5.10 (3.9,6.6)	1.03 (0.5,1.9)	2.71 (1.5,4.8)	6.27 (4.4,9.0)	12.28 (9.3,16.2)	18.07 (12.8,25.5)	22.63 (15.1,33.9)	34.19 (19.9,58.9)
Coastal	8.10 (5.9,11.0)	1.99 (0.9,4.3)	4.90 (2.8,8.7)	10.37 (7.1,15.1)	18.79 (13.9,25.3)	25.85 (19.0,35.1)	31.95 (22.8,44.8)	50.54 (28.1,91.0)
<b>Coastal/Inland Region</b>								
Pacific	7.29 (4.3,12.4)	1.76 (0.7,4.5)	4.34 (2.1,9.1)	9.48 (5.6,16.1)	17.19 (10.3,28.8)	23.86 (13.6,41.8)	29.33 (15.8,54.4)	42.83 (20.6,89.0)
Atlantic	8.09 (4.9,13.4)	2.42 (0.9,6.6)	5.39 (2.4,12.2)	10.68 (6.0,18.9)	18.04 (11.5,28.3)	24.45 (16.6,36.0)	28.93 (19.5,42.9)	43.37 (26.4,71.3)
Gulf of Mexico	12.81 (7.8,21.0)	3.48 (1.3,9.4)	8.18 (3.9,17.3)	16.51 (9.5,28.6)	28.24 (17.9,44.5)	41.56 (23.4,73.8)	51.91 (26.7,100.9)	70.78 (36.1,138.9)
Great Lakes	5.33 (3.5,8.1)	1.10 (0.4,3.0)	2.70 (1.2,6.0)	6.05 (3.7,10.0)	11.87 (7.8,18.0)	18.84 (10.3,34.3)	24.43 (12.5,47.9)	42.46 (16.0,112.8)
Inland Northeast	7.58 (5.3,10.8)	1.52 (0.6,3.6)	4.45 (2.5,7.9)	10.15 (7.1,14.5)	19.01 (11.2,32.1)	25.71 (14.3,46.1)	31.91 (15.9,63.9)	41.28 (23.2,73.4)
Inland Midwest	2.63 (1.7,4.1)	0.64 (0.3,1.2)	1.59 (0.9,2.8)	3.37 (2.1,5.5)	6.17 (3.9,9.7)	8.54 (5.3,13.7)	10.81 (6.7,17.4)	16.25 (9.5,27.7)
Inland South	5.48 (4.1,7.3)	1.26 (0.7,2.2)	3.26 (2.2,4.9)	6.95 (5.3,9.2)	12.55 (9.2,17.1)	18.23 (12.0,27.8)	21.98 (14.1,34.3)	33.55 (17.8,63.4)
Inland West	6.75 (4.8,9.5)	1.59 (0.9,2.9)	3.88 (2.3,6.4)	8.44 (6.0,11.9)	15.63 (10.6,23.0)	22.31 (13.5,37.0)	28.08 (15.2,52.0)	42.22 (18.8,94.8)

Table C-18. Estuarine fish usual fish consumption rate estimates, youth >21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	2.47 (1.9,3.3)	0.24 (0.1,0.4)	0.79 (0.5,1.3)	2.45 (1.6,3.9)	6.21 (4.4,8.7)	10.64 (7.9,14.3)	14.41 (10.4,20.0)	23.22 (16.2,33.2)
<b>Gender</b>								
Female	2.46 (1.7,3.5)	0.24 (0.1,0.5)	0.79 (0.4,1.4)	2.47 (1.5,4.2)	6.26 (4.3,9.2)	10.64 (7.5,15.1)	14.38 (9.9,20.9)	22.22 (15.2,32.5)
Male	2.48 (1.9,3.3)	0.25 (0.1,0.4)	0.79 (0.5,1.2)	2.43 (1.6,3.6)	6.18 (4.4,8.6)	10.63 (7.8,14.4)	14.44 (10.2,20.5)	23.89 (15.7,36.3)
<b>Age</b>								
1 to <3 yrs	1.39 (0.6,3.1)	0.13 (0.1,0.3)	0.41 (0.2,0.8)	1.26 (0.7,2.1)	3.09 (1.7,5.7)	5.40 (2.5,11.9)	8.35 (2.7,25.5)	16.46 (3.6,74.5)
3 to <6 yrs	1.55 (1.0,2.5)	0.18 (0.1,0.4)	0.59 (0.3,1.1)	1.73 (1.0,3.1)	3.94 (2.3,6.7)	6.37 (4.0,10.1)	8.80 (5.5,14.2)	13.35 (8.1,21.9)
6 to <11 yrs	2.05 (1.3,3.2)	0.19 (0.1,0.5)	0.64 (0.3,1.4)	2.02 (1.0,4.0)	5.12 (3.1,8.4)	8.54 (5.4,13.6)	11.65 (7.3,18.5)	20.96 (10.9,40.4)
11 to <16 yrs	2.52 (1.4,4.5)	0.28 (0.1,0.7)	0.91 (0.4,2.0)	2.79 (1.4,5.4)	6.38 (3.4,12.1)	10.49 (6.3,17.5)	13.48 (7.6,23.9)	21.42 (11.5,39.9)
16 to <18 yrs	2.59 (1.5,4.4)	0.24 (0.1,0.8)	0.76 (0.2,2.5)	2.39 (0.9,6.5)	6.22 (3.0,13.1)	11.09 (6.9,17.8)	15.43 (9.9,24.0)	30.44 (13.5,68.8)
18 to <21 yrs	4.66 (2.7,8.1)	0.62 (0.3,1.3)	1.98 (1.1,3.5)	5.58 (3.3,9.4)	12.43 (6.5,23.6)	17.81 (10.0,31.8)	22.26 (12.4,40.0)	36.21 (17.2,76.2)
<b>Income</b>								
<\$20,000	2.69 (2.0,3.6)	0.29 (0.2,0.5)	0.91 (0.6,1.5)	2.92 (2.0,4.3)	7.13 (5.2,9.7)	11.32 (8.2,15.5)	14.92 (10.9,20.4)	22.39 (14.6,34.3)
>\$20,000	2.34 (1.7,3.2)	0.23 (0.1,0.4)	0.75 (0.4,1.3)	2.29 (1.4,3.8)	5.82 (4.0,8.5)	10.02 (7.4,13.6)	13.57 (9.7,18.9)	22.26 (15.2,32.5)
Income unknown	4.28 (2.0,9.1)	0.37 (0.2,0.8)	1.30 (0.6,2.7)	4.61 (2.0,10.6)	12.76 (4.3,38.2)	19.78 (7.3,53.9)	23.93 (10.0,57.5)	32.38 (13.4,78.5)
<b>Income, finer detail</b>								
<\$20,000	2.69 (2.0,3.6)	0.29 (0.2,0.5)	0.91 (0.6,1.5)	2.92 (2.0,4.3)	7.13 (5.2,9.7)	11.32 (8.2,15.5)	14.92 (10.9,20.4)	22.39 (14.6,34.3)
\$20k-\$45k	2.27 (1.6,3.2)	0.23 (0.1,0.4)	0.73 (0.4,1.3)	2.31 (1.6,3.4)	6.04 (4.2,8.7)	9.92 (6.5,15.1)	13.75 (8.2,23.0)	20.79 (13.4,32.2)
\$45k-\$75k	1.82 (1.0,3.2)	0.19 (0.1,0.4)	0.60 (0.3,1.2)	1.74 (0.7,4.2)	4.56 (2.3,9.1)	7.76 (4.5,13.3)	10.41 (6.2,17.4)	17.24 (9.8,30.4)
\$75k+	2.68 (1.9,3.7)	0.24 (0.1,0.4)	0.87 (0.5,1.4)	2.56 (1.5,4.3)	6.28 (3.8,10.3)	11.50 (8.1,16.3)	15.63 (10.6,23.1)	28.70 (14.2,57.8)
>\$20,000	3.02 (1.6,5.7)	0.36 (0.1,0.9)	1.24 (0.6,2.7)	3.44 (1.7,6.9)	8.63 (3.4,21.9)	12.17 (5.7,26.2)	13.91 (7.3,26.3)	19.28 (9.1,40.7)
Inc Ref/DK	3.45 (1.7,6.9)	0.30 (0.1,1.0)	1.14 (0.5,2.8)	3.96 (1.7,9.4)	9.92 (4.0,24.9)	15.28 (6.6,35.4)	19.07 (8.7,41.8)	25.19 (11.1,57.2)
Inc missing	5.42 (1.3,22.8)	0.50 (0.1,1.8)	1.39 (0.4,4.7)	6.44 (1.1,37.7)	17.31 (2.5,121.0)	23.93 (4.9,117.0)	30.38 (6.5,141.7)	36.60 (9.9,136.0)
<b>Race/Ethnicity</b>								
Mexican American	2.46 (1.5,4.2)	0.31 (0.2,0.6)	1.01 (0.6,1.7)	2.82 (1.7,4.6)	6.37 (4.1,9.8)	10.04 (6.4,15.7)	13.47 (8.6,21.1)	19.49 (8.5,45.0)
Other Hispanic	1.62 (0.4,7.1)	0.20 (0.1,0.6)	0.58 (0.2,2.1)	1.66 (0.4,7.8)	4.31 (1.0,18.6)	6.44 (1.2,35.6)	8.68 (1.7,45.4)	14.61 (3.1,68.8)
White	1.87 (1.2,2.8)	0.19 (0.1,0.3)	0.59 (0.3,1.0)	1.80 (1.1,2.9)	4.63 (3.1,7.0)	8.06 (5.0,12.9)	12.04 (6.0,24.3)	19.40 (10.2,37.0)
Black	3.02 (1.4,6.5)	0.47 (0.2,1.1)	1.39 (0.6,3.2)	3.67 (1.6,8.6)	8.00 (4.0,15.8)	11.13 (4.9,25.1)	14.13 (6.4,31.1)	21.24 (9.2,48.9)
Other race	6.92 (2.7,17.4)	0.62 (0.3,1.2)	2.88 (1.2,6.7)	8.20 (3.9,17.3)	17.81 (7.2,43.9)	29.62 (7.8,112.7)	37.37 (9.3,149.4)	57.94 (12.4,269.7)

Table C-18. Estuarine fish usual fish consumption rate estimates, youth >21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.82 (0.9,3.6)	0.15 (0.1,0.3)	0.49 (0.2,1.0)	1.52 (0.8,3.1)	4.47 (2.0,10.0)	8.08 (3.5,18.6)	11.57 (5.3,25.5)	19.98 (9.1,44.0)
Northeast	2.57 (1.7,3.9)	0.21 (0.1,0.7)	0.74 (0.2,2.4)	2.52 (1.1,5.8)	7.09 (5.0,10.0)	12.35 (8.0,19.1)	15.85 (10.2,24.6)	23.22 (14.8,36.5)
South	2.71 (1.8,4.2)	0.34 (0.2,0.6)	1.05 (0.6,1.9)	2.96 (1.8,4.9)	6.84 (4.4,10.6)	10.95 (6.8,17.7)	14.71 (8.5,25.4)	22.69 (12.5,41.3)
West	2.70 (1.7,4.3)	0.26 (0.1,0.5)	0.90 (0.5,1.5)	2.68 (1.7,4.2)	6.53 (4.2,10.0)	11.48 (6.4,20.6)	15.17 (8.2,27.9)	28.40 (10.0,80.4)
<b>Coastal Status</b>								
Noncoastal	1.87 (1.3,2.7)	0.21 (0.1,0.4)	0.64 (0.4,1.2)	1.96 (1.2,3.1)	4.78 (3.4,6.8)	7.71 (5.5,10.8)	10.68 (7.6,15.1)	16.52 (10.7,25.6)
Coastal	3.43 (2.4,4.8)	0.32 (0.2,0.6)	1.11 (0.6,2.0)	3.51 (2.0,6.3)	9.25 (6.4,13.3)	14.89 (10.2,21.8)	19.73 (13.0,30.0)	32.63 (18.6,57.3)
<b>Coastal/Inland Region</b>								
Pacific	3.60 (1.7,7.7)	0.24 (0.1,0.5)	0.95 (0.5,1.7)	3.26 (2.0,5.3)	9.79 (4.6,21.0)	15.83 (6.8,36.6)	21.87 (7.9,60.3)	41.59 (7.7,224.4)
Atlantic	2.74 (1.3,6.0)	0.37 (0.1,1.1)	1.13 (0.3,3.9)	3.24 (1.2,8.8)	7.43 (3.9,14.1)	10.77 (5.6,20.6)	14.10 (8.2,24.2)	20.93 (11.7,37.5)
Gulf of Mexico	5.28 (1.3,21.0)	0.75 (0.2,3.7)	2.19 (0.5,10.1)	6.19 (1.4,28.0)	14.28 (3.1,66.5)	20.99 (5.0,88.2)	28.03 (6.6,119.5)	42.33 (11.0,163.5)
Great Lakes	2.92 (1.3,6.6)	0.20 (0.1,0.5)	0.68 (0.2,1.9)	2.29 (0.6,9.5)	7.69 (2.7,21.9)	13.99 (6.5,30.3)	19.79 (10.6,36.8)	35.70 (19.9,63.9)
Inland Northeast	2.22 (1.2,4.1)	0.14 (0.0,1.0)	0.51 (0.1,3.3)	1.82 (0.4,7.5)	5.29 (2.2,12.7)	12.07 (6.7,21.8)	15.79 (8.6,29.1)	23.30 (13.0,41.8)
Inland Midwest	1.46 (0.7,3.1)	0.14 (0.1,0.4)	0.46 (0.2,1.1)	1.33 (0.6,2.9)	3.77 (1.6,8.7)	6.42 (2.7,15.3)	9.22 (3.6,23.9)	15.08 (5.9,38.4)
Inland South	2.04 (1.4,2.9)	0.29 (0.2,0.5)	0.85 (0.5,1.4)	2.37 (1.5,3.6)	5.15 (3.5,7.5)	8.00 (5.5,11.6)	10.64 (7.2,15.7)	16.11 (10.3,25.3)
Inland West	1.95 (1.0,3.6)	0.27 (0.1,0.6)	0.85 (0.4,1.7)	2.32 (1.2,4.3)	5.13 (2.9,9.1)	7.44 (3.9,14.1)	9.96 (5.3,18.6)	15.02 (7.3,30.8)

Table C-19. Freshwater + estuarine fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	7.20 (5.6,9.3)	1.10 (0.7,1.8)	3.55 (2.2,5.8)	8.93 (6.3,12.6)	18.03 (14.1,23.0)	26.42 (20.9,33.3)	33.38 (26.0,42.8)	50.86 (37.4,69.1)
<b>Gender</b>								
Female	6.12 (4.6,8.2)	0.95 (0.6,1.6)	3.06 (1.8,5.1)	7.57 (5.1,11.3)	15.10 (11.2,20.3)	22.35 (17.2,29.0)	28.17 (21.3,37.2)	42.20 (30.4,58.6)
Male	8.50 (6.6,11.0)	1.33 (0.8,2.2)	4.28 (2.7,6.8)	10.75 (7.8,14.7)	21.42 (17.0,27.0)	30.85 (24.3,39.1)	38.21 (29.4,49.6)	58.53 (42.5,80.7)
<b>Age</b>								
1 to <3 yrs	2.17 (1.2,4.0)	0.21 (0.1,0.4)	0.66 (0.4,1.2)	2.08 (1.3,3.4)	5.07 (3.1,8.3)	8.78 (4.7,16.3)	13.40 (5.4,33.3)	25.24 (7.4,86.0)
3 to <6 yrs	2.37 (1.6,3.6)	0.25 (0.1,0.5)	0.86 (0.5,1.5)	2.58 (1.6,4.3)	6.04 (3.9,9.4)	9.65 (6.4,14.6)	12.80 (8.3,19.7)	21.50 (12.3,37.6)
6 to <11 yrs	3.08 (2.1,4.5)	0.36 (0.2,0.6)	1.14 (0.7,1.9)	3.35 (2.2,5.1)	7.80 (5.2,11.8)	12.90 (8.4,19.8)	16.34 (10.3,26.0)	28.29 (17.1,46.7)
11 to <16 yrs	3.55 (2.2,5.8)	0.44 (0.2,1.0)	1.33 (0.6,2.9)	4.09 (2.4,7.1)	8.96 (5.3,15.1)	13.63 (7.8,23.8)	18.66 (12.0,29.0)	32.51 (22.1,47.9)
16 to <18 yrs	3.36 (1.6,7.0)	0.30 (0.0,1.9)	1.04 (0.2,4.9)	3.19 (0.9,10.9)	8.18 (3.5,19.3)	14.00 (7.5,26.1)	19.21 (11.3,32.8)	37.96 (20.6,70.0)
18 to <21 yrs	5.37 (3.7,7.8)	0.72 (0.4,1.4)	2.32 (1.4,3.9)	6.48 (4.2,10.1)	14.16 (9.6,21.0)	20.81 (13.9,31.2)	27.64 (18.4,41.4)	40.11 (24.7,65.1)
21 to <35 yrs	8.52 (6.6,11.0)	1.62 (1.0,2.6)	4.48 (3.2,6.2)	10.30 (8.1,13.2)	20.52 (15.6,26.9)	29.91 (22.3,40.2)	37.39 (27.7,50.5)	63.76 (36.5,111.4)
35 to <50 yrs	8.73 (6.2,12.3)	1.92 (1.1,3.4)	4.82 (2.8,8.3)	10.88 (7.1,16.6)	20.91 (14.9,29.4)	29.98 (21.4,42.0)	38.00 (26.9,53.8)	56.84 (38.1,84.8)
50 to <65 yrs	9.98 (7.3,13.7)	2.73 (1.4,5.4)	6.32 (3.7,10.7)	12.85 (8.9,18.4)	23.11 (17.6,30.4)	31.87 (24.1,42.2)	38.28 (28.1,52.1)	57.09 (38.3,85.1)
65+ yrs	7.40 (4.5,12.2)	1.66 (0.6,4.8)	4.27 (1.9,9.7)	9.42 (5.3,16.6)	17.70 (11.8,26.5)	25.00 (17.7,35.4)	31.28 (23.1,42.4)	45.01 (32.0,63.3)
<b>Income</b>								
<\$20,000	6.73 (5.2,8.7)	0.94 (0.6,1.5)	3.08 (2.0,4.8)	8.16 (5.7,11.6)	16.53 (12.0,22.8)	25.40 (19.9,32.5)	32.27 (24.7,42.2)	50.74 (36.2,71.1)
>\$20,000	7.21 (5.4,9.6)	1.13 (0.7,1.9)	3.59 (2.1,6.1)	8.94 (6.1,13.1)	17.98 (13.8,23.5)	26.28 (20.5,33.7)	33.20 (25.7,42.9)	50.63 (37.0,69.2)
Income unknown	9.46 (5.4,16.7)	1.56 (0.7,3.6)	5.25 (2.3,11.8)	13.11 (6.0,28.4)	24.84 (12.7,48.7)	33.32 (19.5,57.1)	38.76 (24.4,61.6)	56.68 (33.4,96.1)
<b>Income, finer detail</b>								
<\$20,000	6.73 (5.2,8.7)	0.94 (0.6,1.5)	3.08 (2.0,4.8)	8.16 (5.7,11.6)	16.53 (12.0,22.8)	25.40 (19.9,32.5)	32.27 (24.7,42.2)	50.74 (36.2,71.1)
\$20k-\$45k	6.48 (4.6,9.2)	1.01 (0.6,1.8)	3.21 (1.9,5.5)	7.91 (5.0,12.6)	15.88 (11.1,22.8)	23.92 (18.0,31.9)	30.40 (22.7,40.8)	47.18 (33.6,66.2)
\$45k-\$75k	6.65 (5.0,8.9)	0.99 (0.6,1.8)	3.35 (2.1,5.2)	8.41 (6.0,11.8)	16.66 (12.6,22.0)	23.49 (17.3,31.9)	29.75 (21.9,40.5)	47.37 (31.9,70.3)
\$75k+	8.11 (5.8,11.3)	1.33 (0.7,2.5)	4.05 (2.0,8.0)	10.05 (6.3,16.0)	20.45 (15.4,27.2)	30.03 (23.2,38.9)	37.21 (28.1,49.3)	54.13 (38.7,75.8)
>\$20,000	8.13 (4.3,15.4)	1.53 (0.8,3.1)	4.83 (2.4,9.8)	10.78 (5.5,21.2)	19.96 (9.9,40.2)	27.33 (14.0,53.5)	34.82 (15.9,76.1)	48.59 (23.9,98.9)
Inc Ref/DK	8.99 (5.0,16.1)	1.45 (0.8,2.6)	5.00 (2.6,9.6)	12.10 (6.3,23.1)	23.22 (11.9,45.4)	30.98 (17.3,55.4)	37.94 (20.3,70.9)	50.48 (28.4,89.6)
Inc missing	10.35 (3.5,30.4)	1.71 (0.3,8.5)	5.55 (1.3,23.3)	14.41 (3.9,53.8)	27.21 (8.8,84.1)	35.91 (13.5,95.7)	42.86 (17.8,103.1)	61.28 (25.1,149.8)
<b>Race/Ethnicity</b>								
Mexican American	7.56 (4.8,11.9)	1.11 (0.7,1.9)	3.75 (2.4,5.8)	9.73 (6.2,15.2)	19.76 (13.2,29.5)	28.13 (18.2,43.5)	34.23 (20.5,57.0)	47.33 (23.4,95.7)
Other Hispanic	8.08 (5.6,11.6)	0.95 (0.6,1.6)	3.35 (1.9,5.9)	9.31 (5.5,15.9)	20.18 (13.4,30.4)	32.99 (20.5,53.1)	44.23 (22.8,85.9)	65.76 (31.2,138.7)
White	5.91 (4.1,8.5)	0.94 (0.5,1.6)	3.08 (1.8,5.3)	7.40 (4.6,11.9)	14.73 (10.3,21.1)	21.61 (16.1,29.1)	26.78 (19.6,36.6)	39.38 (27.9,55.5)
Black	8.93 (6.5,12.3)	1.82 (1.1,3.2)	5.28 (3.3,8.5)	11.59 (7.7,17.4)	21.42 (15.5,29.5)	29.74 (21.7,40.8)	36.28 (26.1,50.5)	53.05 (37.7,74.6)
Other race	15.96 (9.2,27.6)	2.68 (1.5,4.7)	9.06 (5.2,15.9)	20.84 (11.9,36.6)	39.32 (21.8,70.8)	55.32 (30.8,99.3)	69.15 (36.2,131.9)	95.55 (54.1,168.8)

Table C-19. Freshwater + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.71 (2.9,7.6)	0.69 (0.4,1.3)	2.29 (1.2,4.4)	5.59 (2.9,10.7)	11.25 (6.2,20.3)	16.64 (9.6,28.8)	21.38 (12.9,35.5)	35.12 (23.0,53.6)
Northeast	8.36 (6.8,10.3)	1.22 (0.7,2.2)	4.45 (2.8,7.0)	11.31 (8.9,14.4)	21.43 (17.2,26.8)	30.00 (23.2,38.8)	35.85 (27.4,46.9)	50.06 (36.5,68.6)
South	8.64 (6.4,11.6)	1.52 (1.0,2.4)	4.62 (3.1,7.0)	11.02 (7.9,15.4)	21.42 (16.0,28.7)	30.35 (22.6,40.8)	37.36 (27.1,51.5)	57.49 (40.1,82.4)
West	6.99 (4.8,10.2)	1.12 (0.6,2.1)	3.46 (1.8,6.5)	8.44 (5.1,13.8)	16.93 (11.5,24.9)	25.93 (18.1,37.2)	33.38 (22.3,50.0)	51.61 (32.0,83.1)
<b>Coastal Status</b>								
Noncoastal	6.11 (4.6,8.2)	0.92 (0.5,1.6)	3.02 (1.9,4.9)	7.61 (5.2,11.1)	15.16 (11.1,20.7)	22.57 (17.2,29.6)	28.42 (21.2,38.1)	42.18 (29.6,60.2)
Coastal	8.93 (6.5,12.2)	1.50 (0.8,2.7)	4.62 (2.6,8.2)	11.13 (7.3,16.9)	22.35 (16.9,29.5)	31.93 (24.3,41.9)	39.79 (30.0,52.8)	61.23 (43.8,85.6)
<b>Coastal/Inland Region</b>								
Pacific	7.82 (5.1,12.0)	1.27 (0.6,2.5)	3.96 (2.0,7.8)	9.56 (5.6,16.3)	19.45 (12.9,29.4)	28.92 (19.3,43.4)	36.63 (23.7,56.5)	54.12 (33.0,88.9)
Atlantic	8.42 (5.0,14.3)	1.76 (0.7,4.2)	5.00 (2.2,11.3)	11.05 (5.8,21.1)	20.47 (12.9,32.4)	28.39 (19.3,41.8)	34.63 (24.1,49.7)	48.56 (33.9,69.6)
Gulf of Mexico	15.04 (9.1,24.9)	2.83 (0.8,9.5)	9.02 (3.8,21.3)	19.90 (11.1,35.6)	35.56 (22.5,56.2)	50.97 (35.4,73.3)	61.12 (43.2,86.4)	87.47 (61.6,124.3)
Great Lakes	6.69 (4.6,9.7)	0.83 (0.4,1.8)	2.88 (1.4,5.8)	7.21 (4.1,12.8)	15.38 (10.0,23.6)	24.49 (16.2,37.1)	33.53 (19.5,57.8)	71.89 (17.3,298.9)
Inland Northeast	7.98 (5.7,11.2)	0.91 (0.4,2.3)	3.67 (1.9,7.1)	10.77 (7.4,15.7)	21.37 (13.6,33.6)	30.22 (18.5,49.3)	35.93 (22.7,56.8)	49.40 (32.3,75.6)
Inland Midwest	4.16 (2.4,7.1)	0.66 (0.4,1.2)	2.15 (1.2,3.9)	5.19 (2.8,9.5)	10.34 (5.9,18.2)	14.71 (8.0,26.9)	18.76 (10.6,33.3)	27.62 (15.0,50.9)
Inland South	7.17 (5.5,9.4)	1.24 (0.8,1.9)	3.95 (2.9,5.5)	9.49 (7.1,12.6)	17.84 (13.4,23.8)	25.06 (18.4,34.1)	30.46 (22.1,42.0)	43.51 (29.7,63.8)
Inland West	6.16 (3.7,10.3)	1.02 (0.5,2.2)	3.07 (1.5,6.4)	7.32 (3.8,14.1)	14.23 (7.7,26.4)	22.36 (13.6,36.9)	29.73 (17.4,50.8)	48.02 (24.1,95.7)

Table C-20. Freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	8.75 (6.8,11.3)	1.93 (1.1,3.3)	4.93 (3.0,8.0)	10.99 (8.0,15.1)	20.90 (16.6,26.3)	29.74 (23.5,37.6)	36.80 (28.3,47.8)	57.09 (40.1,81.2)
<b>Gender</b>								
Female	7.32 (5.5,9.7)	1.63 (1.0,2.8)	4.16 (2.5,6.8)	9.15 (6.3,13.2)	17.20 (13.0,22.7)	24.63 (18.8,32.3)	31.06 (23.4,41.3)	46.02 (32.6,65.0)
Male	10.58 (8.2,13.7)	2.50 (1.5,4.3)	6.13 (3.8,10.0)	13.56 (10.1,18.2)	25.09 (19.9,31.6)	35.13 (27.2,45.3)	43.32 (32.9,57.1)	64.41 (45.9,90.4)
<b>Age</b>								
21 to <35 yrs	8.52 (6.6,11.0)	1.62 (1.0,2.6)	4.48 (3.2,6.2)	10.30 (8.1,13.2)	20.52 (15.6,26.9)	29.91 (22.3,40.2)	37.39 (27.7,50.5)	63.76 (36.5,111.4)
35 to <50 yrs	8.73 (6.2,12.3)	1.92 (1.1,3.4)	4.82 (2.8,8.3)	10.88 (7.1,16.6)	20.91 (14.9,29.4)	29.98 (21.4,42.0)	38.00 (26.9,53.8)	56.84 (38.1,84.8)
50 to <65 yrs	9.98 (7.3,13.7)	2.73 (1.4,5.4)	6.32 (3.7,10.7)	12.85 (8.9,18.4)	23.11 (17.6,30.4)	31.87 (24.1,42.2)	38.28 (28.1,52.1)	57.09 (38.3,85.1)
65+ yrs	7.40 (4.5,12.2)	1.66 (0.6,4.8)	4.27 (1.9,9.7)	9.42 (5.3,16.6)	17.70 (11.8,26.5)	25.00 (17.7,35.4)	31.28 (23.1,42.4)	45.01 (32.0,63.3)
<b>WCA (13-49 years)</b>	6.48 (5.0,8.4)	1.09 (0.7,1.7)	3.26 (2.1,5.0)	7.86 (5.5,11.2)	15.79 (11.9,21.0)	23.70 (18.1,31.0)	29.90 (22.2,40.2)	46.38 (32.4,66.4)
<b>Income</b>								
<\$20,000	8.07 (6.1,10.6)	1.44 (0.8,2.6)	4.34 (2.8,6.7)	10.11 (7.2,14.2)	19.24 (14.2,26.1)	28.33 (21.7,36.9)	34.81 (25.7,47.1)	58.09 (37.4,90.2)
>\$20,000	8.79 (6.7,11.6)	2.00 (1.1,3.6)	4.96 (2.9,8.5)	11.00 (7.8,15.6)	20.89 (16.3,26.7)	29.74 (23.2,38.0)	36.87 (28.2,48.3)	56.78 (40.0,80.6)
Income unknown	11.14 (6.4,19.5)	2.79 (1.0,7.9)	6.87 (3.6,13.3)	15.02 (7.9,28.6)	26.41 (15.3,45.6)	35.91 (20.8,61.9)	44.10 (25.0,77.8)	61.28 (33.2,113.1)
<b>Income, finer detail</b>								
<\$20,000	8.07 (6.1,10.6)	1.44 (0.8,2.6)	4.34 (2.8,6.7)	10.11 (7.2,14.2)	19.24 (14.2,26.1)	28.33 (21.7,36.9)	34.81 (25.7,47.1)	58.09 (37.4,90.2)
\$20k-\$45k	7.81 (5.5,11.1)	1.69 (0.9,3.1)	4.34 (2.4,7.8)	9.73 (6.4,14.7)	18.13 (12.6,26.0)	26.82 (20.1,35.8)	33.30 (24.3,45.6)	54.19 (36.8,79.7)
\$45k-\$75k	8.10 (6.2,10.6)	1.82 (1.1,3.1)	4.71 (3.2,7.0)	10.36 (7.7,14.0)	19.28 (14.8,25.1)	26.33 (19.4,35.8)	33.11 (24.2,45.4)	53.44 (33.7,84.8)
\$75k+	10.02 (7.2,13.9)	2.42 (1.1,5.2)	5.66 (2.8,11.3)	12.61 (8.4,19.0)	23.62 (17.8,31.4)	34.06 (26.2,44.3)	41.31 (30.9,55.3)	62.84 (42.0,94.1)
>\$20,000	9.43 (5.2,17.0)	2.26 (1.1,4.5)	5.89 (3.3,10.7)	12.27 (6.9,21.9)	22.36 (11.2,44.8)	29.72 (15.6,56.7)	37.96 (17.3,83.3)	51.37 (25.4,103.9)
Inc Ref/DK	10.49 (5.8,19.0)	2.42 (1.2,4.8)	6.60 (3.5,12.5)	14.54 (7.1,29.8)	26.10 (12.7,53.5)	33.66 (18.0,63.1)	39.71 (21.8,72.3)	50.89 (28.5,90.9)
Inc missing	12.60 (4.4,35.9)	3.55 (0.5,26.8)	7.54 (2.3,25.0)	16.14 (5.5,47.5)	29.99 (10.4,86.7)	38.76 (15.0,99.9)	56.84 (16.5,195.4)	66.74 (26.6,167.2)
<b>Race/Ethnicity</b>								
Mexican American	10.21 (6.4,16.3)	2.39 (1.4,4.0)	6.47 (4.1,10.1)	13.40 (8.3,21.6)	24.78 (16.5,37.3)	32.70 (19.4,55.2)	38.63 (20.9,71.4)	53.80 (26.5,109.3)
Other Hispanic	11.11 (7.6,16.3)	2.34 (1.4,3.9)	5.93 (3.5,10.0)	12.85 (8.0,20.7)	27.60 (17.7,43.1)	41.19 (22.0,77.3)	53.33 (24.3,117.0)	76.96 (32.7,181.1)
White	7.11 (4.9,10.3)	1.67 (0.9,3.1)	4.17 (2.4,7.3)	9.04 (5.8,14.0)	16.99 (12.3,23.4)	23.76 (17.2,32.7)	29.73 (22.0,40.1)	42.53 (30.0,60.2)
Black	10.78 (8.1,14.4)	2.88 (1.6,5.1)	7.04 (4.6,10.9)	14.10 (10.0,19.9)	24.54 (18.3,33.0)	33.01 (23.9,45.7)	40.13 (29.1,55.3)	60.52 (40.2,91.1)
Other race	19.87 (11.8,33.5)	5.20 (3.0,9.0)	13.23 (7.1,24.8)	25.91 (14.8,45.5)	46.42 (25.8,83.6)	64.67 (34.0,123.0)	78.09 (41.9,145.6)	103.85 (59.7,180.8)

Table C-20. Freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	5.50 (3.3,9.3)	1.22 (0.6,2.6)	3.09 (1.5,6.4)	6.57 (3.2,13.3)	12.43 (6.8,22.8)	17.80 (9.9,31.9)	22.74 (13.6,38.0)	39.41 (26.4,58.7)
Northeast	10.35 (8.2,13.0)	2.48 (1.4,4.3)	6.49 (4.4,9.5)	14.03 (11.0,17.9)	24.64 (19.1,31.7)	32.84 (25.3,42.6)	38.84 (29.6,51.0)	52.54 (37.1,74.4)
South	10.51 (7.9,14.0)	2.57 (1.6,4.1)	6.36 (4.3,9.4)	13.61 (10.0,18.5)	24.35 (18.1,32.7)	34.28 (25.2,46.5)	42.02 (30.4,58.1)	61.89 (43.6,87.9)
West	8.59 (6.0,12.2)	2.01 (1.1,3.8)	4.84 (2.7,8.7)	10.39 (6.6,16.4)	20.12 (14.3,28.3)	29.63 (20.3,43.2)	36.98 (24.7,55.4)	60.44 (33.1,110.2)
<b>Coastal Status</b>								
Noncoastal	7.47 (5.5,10.1)	1.63 (0.9,2.8)	4.24 (2.6,7.0)	9.53 (6.8,13.4)	17.83 (13.4,23.8)	25.64 (19.3,34.1)	31.68 (23.1,43.5)	47.34 (32.0,70.0)
Coastal	10.77 (7.9,14.6)	2.59 (1.4,4.9)	6.23 (3.6,10.9)	13.67 (9.5,19.6)	25.09 (18.8,33.5)	35.64 (27.0,47.1)	44.97 (33.5,60.3)	67.62 (46.7,97.9)
<b>Coastal/Inland Region</b>								
Pacific	9.20 (5.8,14.6)	2.18 (1.0,4.8)	5.19 (2.5,10.7)	11.30 (6.6,19.2)	21.73 (14.1,33.5)	31.66 (20.5,49.0)	39.32 (25.0,61.9)	61.40 (34.9,107.9)
Atlantic	10.17 (6.2,16.8)	2.95 (1.2,7.2)	6.66 (3.1,14.3)	13.50 (7.8,23.4)	23.50 (15.7,35.1)	31.21 (21.1,46.1)	37.43 (25.9,54.1)	51.57 (35.0,76.0)
Gulf of Mexico	18.89 (12.5,28.6)	5.47 (2.3,12.9)	13.29 (7.3,24.4)	24.59 (15.2,39.7)	42.50 (29.3,61.7)	59.13 (42.1,83.1)	67.01 (47.1,95.3)	95.98 (65.5,140.6)
Great Lakes	8.10 (5.4,12.1)	1.59 (0.7,3.5)	4.07 (2.2,7.5)	8.65 (5.3,14.2)	17.69 (11.9,26.2)	27.18 (16.4,45.1)	38.56 (17.7,83.9)	79.58 (15.8,400.6)
Inland Northeast	10.07 (6.6,15.3)	1.98 (0.9,4.2)	6.05 (3.7,9.9)	13.62 (8.7,21.4)	25.06 (14.7,42.8)	33.53 (19.9,56.6)	38.93 (24.1,62.8)	54.57 (33.4,89.2)
Inland Midwest	4.81 (2.5,9.3)	1.14 (0.5,2.4)	2.88 (1.4,5.9)	6.09 (3.0,12.5)	11.15 (5.5,22.8)	15.55 (7.5,32.4)	19.63 (10.0,38.5)	27.89 (13.4,58.2)
Inland South	8.67 (6.6,11.5)	2.12 (1.4,3.2)	5.42 (3.9,7.5)	11.44 (8.6,15.2)	20.33 (15.1,27.3)	27.77 (20.3,38.0)	33.55 (23.9,47.1)	49.59 (32.7,75.3)
Inland West	7.94 (5.2,12.2)	1.85 (0.9,3.8)	4.49 (2.4,8.4)	9.41 (5.4,16.4)	17.99 (11.3,28.7)	27.97 (16.8,46.5)	34.96 (19.8,61.7)	57.44 (24.9,132.6)

Table C-21. Freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	3.35 (2.5,4.6)	0.36 (0.2,0.6)	1.17 (0.7,1.9)	3.55 (2.4,5.3)	8.66 (6.4,11.7)	13.86 (10.4,18.5)	18.71 (14.1,24.9)	31.45 (23.0,43.0)
<b>Gender</b>								
Female	2.87 (2.0,4.1)	0.29 (0.2,0.5)	0.97 (0.6,1.6)	2.95 (1.8,4.7)	7.32 (5.1,10.5)	11.87 (8.5,16.6)	15.84 (11.0,22.7)	28.63 (19.5,42.0)
Male	3.85 (2.9,5.1)	0.45 (0.3,0.7)	1.43 (0.9,2.2)	4.26 (3.0,6.0)	9.86 (7.2,13.4)	15.69 (11.9,20.7)	21.03 (15.8,27.9)	33.58 (24.7,45.7)
<b>Age</b>								
1 to <3 yrs	2.17 (1.2,4.0)	0.21 (0.1,0.4)	0.66 (0.4,1.2)	2.08 (1.3,3.4)	5.07 (3.1,8.3)	8.78 (4.7,16.3)	13.40 (5.4,33.3)	25.24 (7.4,86.0)
3 to <6 yrs	2.37 (1.6,3.6)	0.25 (0.1,0.5)	0.86 (0.5,1.5)	2.58 (1.6,4.3)	6.04 (3.9,9.4)	9.65 (6.4,14.6)	12.80 (8.3,19.7)	21.50 (12.3,37.6)
6 to <11 yrs	3.08 (2.1,4.5)	0.36 (0.2,0.6)	1.14 (0.7,1.9)	3.35 (2.2,5.1)	7.80 (5.2,11.8)	12.90 (8.4,19.8)	16.34 (10.3,26.0)	28.29 (17.1,46.7)
11 to <16 yrs	3.55 (2.2,5.8)	0.44 (0.2,1.0)	1.33 (0.6,2.9)	4.09 (2.4,7.1)	8.96 (5.3,15.1)	13.63 (7.8,23.8)	18.66 (12.0,29.0)	32.51 (22.1,47.9)
16 to <18 yrs	3.36 (1.6,7.0)	0.30 (0.0,1.9)	1.04 (0.2,4.9)	3.19 (0.9,10.9)	8.18 (3.5,19.3)	14.00 (7.5,26.1)	19.21 (11.3,32.8)	37.96 (20.6,70.0)
18 to <21 yrs	5.37 (3.7,7.8)	0.72 (0.4,1.4)	2.32 (1.4,3.9)	6.48 (4.2,10.1)	14.16 (9.6,21.0)	20.81 (13.9,31.2)	27.64 (18.4,41.4)	40.11 (24.7,65.1)
<b>Income</b>								
<\$20,000	3.96 (3.1,5.1)	0.46 (0.3,0.7)	1.40 (0.9,2.1)	4.23 (3.0,5.9)	10.06 (7.5,13.4)	16.47 (12.2,22.3)	22.71 (15.2,33.9)	37.26 (23.9,58.0)
>\$20,000	3.11 (2.1,4.5)	0.33 (0.2,0.6)	1.10 (0.6,1.9)	3.34 (2.1,5.2)	8.02 (5.6,11.6)	12.87 (9.2,18.1)	17.14 (12.2,24.1)	30.04 (21.5,41.9)
Income unknown	5.61 (2.5,12.4)	0.54 (0.3,1.1)	1.79 (0.9,3.7)	6.98 (2.0,24.8)	15.84 (5.5,46.0)	24.20 (9.9,59.2)	29.96 (13.9,64.4)	41.20 (19.6,86.5)
<b>Income, finer detail</b>								
<\$20,000	3.96 (3.1,5.1)	0.46 (0.3,0.7)	1.40 (0.9,2.1)	4.23 (3.0,5.9)	10.06 (7.5,13.4)	16.47 (12.2,22.3)	22.71 (15.2,33.9)	37.26 (23.9,58.0)
\$20k-\$45k	3.16 (2.2,4.6)	0.34 (0.2,0.7)	1.14 (0.7,1.9)	3.39 (2.2,5.2)	8.01 (5.3,12.1)	12.96 (8.8,19.1)	17.74 (12.5,25.1)	30.85 (20.5,46.5)
\$45k-\$75k	2.59 (1.6,4.3)	0.28 (0.2,0.5)	0.92 (0.5,1.7)	2.71 (1.4,5.2)	6.69 (3.8,11.7)	10.72 (6.5,17.6)	13.82 (7.7,24.7)	24.20 (15.6,37.5)
\$75k+	3.35 (2.3,4.9)	0.36 (0.2,0.7)	1.18 (0.7,2.1)	3.57 (2.2,5.8)	8.61 (5.9,12.6)	14.33 (10.3,19.9)	18.32 (12.5,26.9)	31.95 (21.2,48.2)
>\$20,000	3.93 (2.1,7.2)	0.50 (0.2,1.3)	1.94 (0.8,4.6)	5.21 (2.2,12.2)	9.55 (5.1,17.8)	12.47 (6.8,23.0)	19.54 (9.2,41.4)	27.63 (13.3,57.4)
Inc Ref/DK	4.91 (2.4,10.0)	0.50 (0.2,1.2)	1.70 (0.8,3.6)	5.82 (2.2,15.4)	13.14 (5.5,31.7)	20.13 (9.0,44.9)	27.76 (11.2,68.7)	43.48 (17.8,106.0)
Inc missing	6.57 (1.5,29.4)	0.61 (0.2,2.4)	1.91 (0.5,7.0)	8.86 (1.0,78.6)	20.35 (2.7,151.1)	28.83 (5.8,143.4)	33.89 (8.7,132.0)	40.86 (11.0,152.4)
<b>Race/Ethnicity</b>								
Mexican American	3.50 (2.2,5.5)	0.50 (0.3,0.9)	1.39 (0.8,2.5)	3.94 (2.5,6.3)	8.53 (5.3,13.8)	13.63 (8.8,21.2)	18.33 (11.7,28.7)	28.61 (15.6,52.5)
Other Hispanic	2.59 (0.8,8.2)	0.31 (0.1,0.8)	0.90 (0.3,2.7)	2.61 (0.8,8.8)	6.59 (2.0,22.1)	10.46 (2.9,37.5)	15.29 (5.0,46.9)	23.74 (6.4,87.5)
White	2.40 (1.6,3.5)	0.26 (0.1,0.5)	0.82 (0.5,1.5)	2.50 (1.5,4.1)	5.97 (3.9,9.0)	9.98 (6.9,14.5)	13.50 (9.1,19.9)	23.23 (14.6,37.0)
Black	5.22 (3.0,9.1)	0.89 (0.5,1.7)	2.59 (1.4,4.7)	6.46 (3.5,11.9)	12.80 (6.9,23.7)	19.42 (11.6,32.6)	24.74 (15.3,40.1)	35.77 (20.0,64.0)
Other race	7.59 (3.9,14.8)	0.86 (0.4,1.7)	3.08 (1.7,5.6)	9.14 (4.8,17.3)	20.34 (9.4,44.2)	31.95 (12.0,84.9)	39.53 (15.7,99.7)	53.26 (26.4,107.6)

Table C-21. Freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.73 (1.6,4.7)	0.24 (0.1,0.5)	0.74 (0.3,1.6)	2.47 (1.4,4.4)	7.10 (4.2,12.1)	12.54 (7.2,21.8)	17.46 (10.1,30.1)	30.30 (17.6,52.2)
Northeast	3.18 (2.0,5.0)	0.29 (0.1,1.0)	1.04 (0.4,2.7)	3.35 (1.7,6.6)	7.98 (4.7,13.5)	13.27 (9.2,19.1)	17.78 (12.8,24.7)	32.28 (20.0,52.2)
South	3.89 (2.6,5.9)	0.54 (0.3,0.9)	1.66 (1.0,2.7)	4.50 (2.9,7.1)	9.89 (6.4,15.2)	14.86 (9.5,23.3)	19.79 (12.6,31.0)	31.18 (19.0,51.1)
West	3.34 (2.1,5.2)	0.36 (0.2,0.7)	1.19 (0.7,2.1)	3.47 (2.1,5.7)	8.24 (5.2,13.2)	13.61 (8.6,21.6)	18.83 (11.1,31.9)	33.41 (17.1,65.2)
<b>Coastal Status</b>								
Noncoastal	2.77 (2.0,3.8)	0.31 (0.2,0.6)	0.99 (0.6,1.7)	2.95 (1.9,4.5)	6.97 (4.9,9.9)	11.33 (8.4,15.3)	15.09 (11.1,20.6)	26.20 (18.2,37.8)
Coastal	4.29 (2.8,6.5)	0.48 (0.3,0.8)	1.56 (0.9,2.7)	4.73 (2.8,8.0)	11.04 (6.9,17.6)	17.36 (11.3,26.6)	24.20 (17.2,34.1)	38.41 (25.9,56.9)
<b>Coastal/Inland Region</b>								
Pacific	4.26 (2.6,7.0)	0.39 (0.2,0.8)	1.31 (0.7,2.4)	4.37 (2.7,7.1)	11.26 (6.6,19.1)	18.77 (10.0,35.3)	26.19 (12.2,56.4)	42.40 (17.3,104.1)
Atlantic	3.68 (1.8,7.4)	0.53 (0.2,1.3)	1.62 (0.6,4.1)	4.40 (1.9,10.1)	9.37 (4.7,18.6)	13.63 (6.8,27.3)	17.78 (9.6,32.8)	28.13 (16.8,47.2)
Gulf of Mexico	6.54 (1.9,22.0)	1.08 (0.2,4.9)	3.24 (0.7,14.8)	8.10 (2.0,32.4)	15.96 (4.7,53.8)	26.29 (7.9,87.6)	31.16 (10.7,90.6)	41.94 (16.1,109.2)
Great Lakes	3.56 (1.5,8.4)	0.26 (0.1,0.8)	0.88 (0.3,3.0)	3.02 (0.8,11.1)	9.52 (3.6,25.1)	17.36 (8.6,35.2)	23.27 (12.1,44.7)	37.67 (19.0,74.7)
Inland Northeast	2.43 (1.0,6.1)	0.20 (0.0,1.3)	0.70 (0.1,3.9)	2.19 (0.5,10.4)	5.95 (2.1,17.2)	10.63 (5.3,21.5)	15.09 (8.6,26.5)	32.28 (16.8,62.0)
Inland Midwest	2.45 (1.5,4.1)	0.24 (0.1,0.5)	0.69 (0.4,1.3)	2.26 (1.4,3.6)	6.28 (3.6,11.0)	10.99 (5.4,22.2)	14.83 (7.2,30.5)	26.28 (11.8,58.4)
Inland South	3.36 (2.3,4.8)	0.45 (0.3,0.8)	1.40 (0.9,2.2)	3.85 (2.6,5.7)	8.50 (5.9,12.2)	12.83 (8.8,18.7)	16.93 (11.5,25.0)	26.88 (16.9,42.7)
Inland West	2.57 (1.3,5.3)	0.35 (0.1,0.8)	1.11 (0.5,2.3)	2.91 (1.4,6.1)	6.27 (2.9,13.4)	9.44 (4.2,21.1)	13.04 (6.4,26.7)	21.36 (9.4,48.5)

Table C-22. Marine + freshwater fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	12.31 (9.8,15.5)	3.00 (1.6,5.5)	8.72 (5.9,12.9)	17.43 (13.5,22.5)	28.41 (23.0,35.1)	36.79 (29.5,45.9)	42.90 (33.9,54.3)	55.96 (42.4,73.9)
<b>Gender</b>								
Female	11.13 (8.6,14.4)	2.70 (1.5,5.0)	7.98 (5.3,12.1)	16.06 (11.9,21.7)	25.93 (20.6,32.7)	33.16 (26.3,41.9)	38.08 (29.7,48.8)	49.06 (36.8,65.3)
Male	13.73 (11.0,17.2)	3.44 (1.9,6.4)	9.73 (6.7,14.1)	19.32 (15.2,24.6)	31.57 (25.5,39.1)	40.96 (32.7,51.4)	47.95 (37.9,60.6)	63.67 (49.5,81.8)
<b>Age</b>								
1 to <3 yrs	3.88 (2.3,6.4)	0.62 (0.3,1.3)	1.89 (1.0,3.8)	4.62 (2.8,7.7)	9.70 (5.9,16.1)	15.16 (8.3,27.6)	19.56 (10.2,37.4)	27.65 (16.2,47.1)
3 to <6 yrs	5.23 (2.8,9.9)	0.99 (0.3,3.0)	3.28 (1.1,9.5)	7.21 (3.2,16.1)	12.48 (7.2,21.6)	16.70 (11.1,25.1)	20.52 (13.5,31.1)	28.27 (19.1,41.7)
6 to <11 yrs	6.78 (3.6,12.8)	1.20 (0.5,2.8)	3.74 (1.8,7.9)	9.21 (4.7,18.0)	17.13 (8.9,32.9)	24.30 (12.0,49.0)	28.32 (15.0,53.4)	36.79 (19.9,67.9)
11 to <16 yrs	5.88 (4.0,8.6)	1.11 (0.6,2.0)	3.25 (1.9,5.6)	7.94 (5.2,12.0)	14.92 (10.0,22.3)	19.74 (12.8,30.5)	24.03 (15.3,37.7)	33.67 (19.9,56.9)
16 to <18 yrs	7.66 (4.8,12.1)	1.20 (0.7,2.1)	4.04 (2.2,7.5)	10.54 (6.3,17.8)	20.27 (12.0,34.3)	26.45 (17.2,40.7)	32.38 (20.8,50.4)	42.68 (27.9,65.2)
18 to <21 yrs	10.91 (6.5,18.5)	1.75 (1.0,3.2)	5.44 (3.2,9.3)	13.47 (8.5,21.3)	27.91 (16.1,48.5)	38.66 (22.6,66.0)	49.01 (27.3,88.1)	81.88 (29.7,225.5)
21 to <35 yrs	12.06 (8.3,17.6)	3.50 (1.4,8.6)	8.72 (4.7,16.2)	16.54 (10.9,25.1)	26.97 (20.0,36.4)	34.87 (27.1,44.9)	40.82 (32.1,51.9)	56.48 (42.7,74.7)
35 to <50 yrs	13.54 (10.8,17.0)	5.31 (3.5,8.1)	10.89 (8.4,14.1)	18.78 (15.0,23.4)	28.24 (20.8,38.4)	35.60 (25.1,50.4)	40.74 (27.6,60.1)	50.39 (29.4,86.3)
50 to <65 yrs	19.61 (13.6,28.3)	8.58 (4.4,16.6)	16.40 (10.2,26.5)	26.99 (18.8,38.7)	39.58 (29.1,53.8)	49.51 (36.1,67.9)	55.11 (41.5,73.2)	68.16 (49.8,93.2)
65+ yrs	13.85 (9.9,19.5)	5.18 (3.6,7.5)	11.03 (8.1,15.1)	19.26 (13.8,26.9)	29.18 (19.6,43.4)	36.53 (23.4,56.9)	42.99 (28.6,64.6)	53.30 (31.6,90.0)
<b>Income</b>								
<\$20,000	10.10 (8.0,12.7)	2.04 (1.2,3.4)	6.50 (4.6,9.2)	14.03 (10.9,18.0)	23.87 (18.9,30.1)	31.92 (25.0,40.7)	37.93 (29.6,48.6)	51.53 (39.0,68.1)
>\$20,000	12.69 (10.1,16.0)	3.27 (1.8,6.0)	9.13 (6.2,13.4)	17.95 (14.0,23.0)	29.13 (23.5,36.1)	37.37 (29.8,46.9)	43.44 (34.0,55.6)	56.54 (42.3,75.5)
Income unknown	13.55 (7.2,25.6)	3.29 (0.9,11.5)	9.92 (3.4,28.6)	20.15 (9.0,45.1)	30.05 (19.7,45.9)	39.58 (26.4,59.3)	45.85 (32.3,65.1)	60.47 (41.2,88.8)
<b>Income, finer detail</b>								
<\$20,000	10.10 (8.0,12.7)	2.04 (1.2,3.4)	6.50 (4.6,9.2)	14.03 (10.9,18.0)	23.87 (18.9,30.1)	31.92 (25.0,40.7)	37.93 (29.6,48.6)	51.53 (39.0,68.1)
\$20k-\$45k	11.21 (8.8,14.4)	2.64 (1.5,4.7)	7.84 (5.1,12.0)	15.69 (12.0,20.6)	25.62 (20.6,31.9)	33.52 (26.7,42.1)	39.41 (30.8,50.4)	53.91 (40.6,71.5)
\$45k-\$75k	12.22 (9.3,16.1)	3.00 (1.8,5.1)	8.57 (5.9,12.4)	17.10 (12.7,23.0)	28.23 (21.1,37.7)	37.30 (28.3,49.2)	44.42 (33.6,58.7)	57.58 (42.4,78.2)
\$75k+	14.24 (11.3,18.0)	4.13 (2.1,8.2)	10.79 (7.3,15.9)	20.49 (15.9,26.5)	31.89 (25.7,39.6)	39.78 (31.1,50.9)	45.93 (35.4,59.6)	58.01 (41.8,80.6)
>\$20,000	12.62 (7.1,22.6)	3.82 (1.4,10.3)	9.55 (4.4,20.8)	17.51 (9.8,31.3)	28.63 (16.3,50.4)	36.54 (21.7,61.6)	41.54 (25.2,68.6)	56.11 (32.9,95.7)
Inc Ref/DK	13.49 (7.5,24.2)	3.39 (1.1,10.1)	10.34 (3.8,28.5)	20.41 (9.7,43.0)	28.69 (20.0,41.0)	36.28 (26.0,50.6)	43.41 (30.5,61.9)	58.01 (37.7,89.3)
Inc missing	13.65 (5.1,36.9)	2.95 (0.5,15.9)	9.43 (2.2,40.5)	19.31 (6.0,61.9)	32.75 (12.4,86.8)	43.91 (18.4,104.8)	50.61 (23.7,108.1)	61.26 (32.6,115.2)
<b>Race/Ethnicity</b>								
Mexican American	9.94 (7.0,14.0)	1.95 (1.1,3.5)	6.41 (3.8,10.8)	14.07 (9.5,20.9)	23.81 (17.4,32.5)	31.63 (23.5,42.6)	37.66 (28.3,50.0)	48.50 (35.9,65.5)
Other Hispanic	10.12 (7.5,13.6)	1.93 (1.2,3.2)	6.79 (4.4,10.4)	14.52 (10.5,20.1)	24.91 (18.3,33.8)	31.95 (23.8,42.8)	36.53 (26.5,50.4)	46.27 (28.5,75.2)
White	12.01 (9.6,15.1)	3.07 (1.6,5.9)	8.61 (6.0,12.3)	16.93 (13.4,21.4)	27.54 (21.8,34.8)	35.67 (27.7,46.0)	41.52 (31.5,54.7)	54.62 (40.5,73.7)
Black	12.79 (10.0,16.4)	3.40 (2.1,5.5)	9.43 (6.2,14.3)	18.24 (13.7,24.2)	29.37 (23.5,36.7)	36.87 (29.8,45.6)	42.45 (33.6,53.7)	53.48 (39.2,72.9)
Other race	19.88 (13.9,28.5)	6.30 (2.4,16.8)	16.38 (7.9,33.8)	27.71 (19.7,39.0)	42.01 (33.1,53.4)	52.80 (41.1,67.8)	64.73 (48.2,87.0)	84.67 (61.6,116.3)

Table C-22. Marine + freshwater fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	9.67 (7.2,13.0)	2.20 (1.1,4.3)	6.74 (4.2,10.7)	13.68 (9.9,19.0)	22.50 (16.7,30.4)	29.58 (21.5,40.8)	34.81 (24.7,49.0)	46.35 (31.4,68.5)
Northeast	14.74 (11.2,19.3)	3.46 (2.1,5.8)	10.45 (7.6,14.4)	21.59 (15.9,29.3)	34.38 (26.2,45.2)	43.84 (33.0,58.1)	50.52 (38.1,67.0)	65.18 (48.5,87.7)
South	12.42 (9.5,16.2)	3.10 (1.7,5.8)	8.85 (5.6,13.9)	17.24 (13.0,22.8)	28.50 (22.4,36.3)	36.62 (29.2,46.0)	43.02 (33.9,54.6)	58.21 (45.0,75.3)
West	13.31 (10.1,17.5)	3.66 (1.9,7.2)	10.01 (6.7,15.0)	19.35 (14.0,26.7)	29.79 (23.2,38.2)	37.85 (29.2,49.1)	43.81 (33.5,57.3)	53.91 (37.2,78.1)
<b>Coastal Status</b>								
Noncoastal	11.94 (8.5,16.8)	2.84 (1.4,5.7)	8.43 (5.1,14.1)	16.82 (11.8,24.1)	27.60 (20.6,37.0)	35.75 (27.1,47.2)	41.76 (31.7,55.0)	54.93 (41.3,73.0)
Coastal	12.90 (10.2,16.3)	3.27 (2.1,5.1)	9.13 (7.0,11.9)	18.42 (14.6,23.3)	29.76 (22.5,39.4)	38.14 (27.5,53.0)	44.25 (31.0,63.2)	58.18 (39.6,85.6)
<b>Coastal/Inland Region</b>								
Pacific	12.88 (10.1,16.5)	3.16 (2.0,5.0)	9.48 (7.0,12.8)	18.91 (14.9,24.0)	29.59 (22.4,39.1)	37.61 (27.2,52.1)	42.64 (28.7,63.3)	52.78 (31.5,88.4)
Atlantic	13.36 (8.8,20.3)	3.88 (2.5,6.0)	9.84 (6.4,15.1)	19.03 (12.4,29.1)	30.05 (18.9,47.8)	38.22 (23.7,61.5)	44.00 (27.0,71.7)	56.42 (34.0,93.6)
Gulf of Mexico	14.68 (8.6,25.1)	3.54 (1.1,11.1)	9.62 (3.9,23.9)	20.02 (9.8,40.7)	34.27 (20.2,58.1)	49.57 (25.7,95.7)	57.37 (32.2,102.3)	79.84 (46.7,136.6)
Great Lakes	9.86 (6.4,15.1)	2.01 (1.3,3.1)	6.17 (4.0,9.4)	13.86 (9.0,21.3)	23.51 (13.7,40.3)	32.59 (21.1,50.5)	37.14 (21.6,63.8)	48.14 (25.0,92.6)
Inland Northeast	15.21 (9.4,24.6)	2.84 (1.7,4.6)	10.25 (6.3,16.7)	22.42 (13.3,37.9)	37.17 (21.5,64.3)	46.62 (28.3,76.8)	54.01 (32.9,88.8)	68.99 (43.5,109.4)
Inland Midwest	9.60 (6.5,14.2)	2.27 (1.0,5.3)	6.84 (3.7,12.5)	13.62 (8.8,21.2)	22.14 (15.7,31.3)	28.86 (20.6,40.4)	33.62 (24.1,47.0)	45.72 (31.9,65.5)
Inland South	11.67 (7.9,17.2)	2.80 (1.3,6.0)	8.53 (4.4,16.5)	16.56 (10.7,25.6)	26.81 (19.5,36.9)	34.16 (26.1,44.7)	39.42 (30.8,50.5)	50.40 (38.0,66.7)
Inland West	13.74 (8.2,23.1)	4.26 (1.4,12.9)	10.54 (5.4,20.4)	19.63 (11.4,33.7)	29.93 (19.3,46.4)	38.13 (25.0,58.3)	45.51 (28.5,72.7)	57.35 (38.0,86.6)

Table C-23. Marine + freshwater fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	14.56 (11.8,18.0)	5.24 (3.0,9.0)	11.31 (8.2,15.6)	20.23 (16.2,25.3)	31.36 (25.5,38.6)	39.52 (31.4,49.7)	45.95 (36.2,58.3)	58.27 (42.9,79.2)
<b>Gender</b>								
Female	13.05 (10.3,16.6)	4.68 (2.5,8.6)	10.24 (7.1,14.7)	18.22 (14.2,23.3)	28.11 (22.5,35.2)	35.43 (27.9,45.0)	40.25 (31.0,52.3)	50.56 (36.5,70.0)
Male	16.49 (13.4,20.3)	6.12 (3.8,9.9)	12.93 (9.6,17.5)	22.85 (18.3,28.5)	35.24 (28.3,43.8)	44.57 (35.3,56.3)	51.36 (39.9,66.1)	66.18 (50.0,87.6)
<b>Age</b>								
21 to <35 yrs	12.06 (8.3,17.6)	3.50 (1.4,8.6)	8.72 (4.7,16.2)	16.54 (10.9,25.1)	26.97 (20.0,36.4)	34.87 (27.1,44.9)	40.82 (32.1,51.9)	56.48 (42.7,74.7)
35 to <50 yrs	13.54 (10.8,17.0)	5.31 (3.5,8.1)	10.89 (8.4,14.1)	18.78 (15.0,23.4)	28.24 (20.8,38.4)	35.60 (25.1,50.4)	40.74 (27.6,60.1)	50.39 (29.4,86.3)
50 to <65 yrs	19.61 (13.6,28.3)	8.58 (4.4,16.6)	16.40 (10.2,26.5)	26.99 (18.8,38.7)	39.58 (29.1,53.8)	49.51 (36.1,67.9)	55.11 (41.5,73.2)	68.16 (49.8,93.2)
65+ yrs	13.85 (9.9,19.5)	5.18 (3.6,7.5)	11.03 (8.1,15.1)	19.26 (13.8,26.9)	29.18 (19.6,43.4)	36.53 (23.4,56.9)	42.99 (28.6,64.6)	53.30 (31.6,90.0)
<b>WCA (13-49 years)</b>	10.65 (8.3,13.6)	2.79 (1.5,5.1)	7.88 (5.1,12.3)	15.25 (11.3,20.5)	24.19 (19.4,30.1)	31.01 (24.8,38.8)	35.65 (27.7,45.8)	44.62 (31.1,64.0)
<b>Income</b>								
<\$20,000	12.13 (9.6,15.4)	3.29 (1.9,5.7)	8.71 (6.3,12.0)	16.78 (13.0,21.6)	26.66 (20.9,34.0)	34.75 (26.9,45.0)	41.51 (32.2,53.5)	55.05 (40.7,74.4)
>\$20,000	14.96 (12.1,18.5)	5.62 (3.4,9.4)	11.77 (8.6,16.1)	20.75 (16.6,25.9)	31.89 (25.8,39.5)	39.95 (31.4,50.8)	46.44 (36.2,59.5)	58.63 (42.6,80.7)
Income unknown	15.77 (8.6,28.8)	5.73 (1.3,25.7)	12.53 (5.0,31.3)	22.56 (11.4,44.8)	32.33 (22.1,47.3)	43.91 (27.3,70.7)	50.52 (32.6,78.3)	64.13 (41.2,99.9)
<b>Income, finer detail</b>								
<\$20,000	12.13 (9.6,15.4)	3.29 (1.9,5.7)	8.71 (6.3,12.0)	16.78 (13.0,21.6)	26.66 (20.9,34.0)	34.75 (26.9,45.0)	41.51 (32.2,53.5)	55.05 (40.7,74.4)
\$20k-\$45k	13.07 (10.5,16.3)	4.53 (2.5,8.0)	10.12 (7.1,14.5)	17.80 (14.3,22.2)	28.12 (22.6,35.0)	36.01 (28.3,45.9)	42.04 (32.5,54.4)	54.55 (38.8,76.8)
\$45k-\$75k	14.31 (10.9,18.7)	5.01 (3.2,7.8)	10.78 (7.8,14.8)	19.85 (14.9,26.4)	31.19 (23.7,41.1)	39.47 (29.4,52.9)	46.92 (35.2,62.5)	59.45 (42.9,82.3)
\$75k+	17.01 (13.7,21.1)	7.23 (4.4,11.8)	14.11 (10.2,19.6)	23.56 (19.0,29.3)	35.03 (28.0,43.8)	42.48 (32.5,55.5)	48.47 (36.3,64.7)	60.00 (41.5,86.9)
>\$20,000	14.56 (8.4,25.2)	6.08 (2.2,16.7)	12.06 (5.7,25.3)	19.56 (11.8,32.5)	31.39 (18.1,54.5)	38.73 (23.5,63.8)	45.44 (26.6,77.7)	57.37 (34.7,94.9)
Inc Ref/DK	15.64 (8.9,27.4)	6.00 (1.4,24.9)	12.88 (5.5,30.1)	22.59 (12.0,42.6)	30.95 (21.9,43.7)	39.39 (27.5,56.4)	46.15 (32.1,66.3)	64.13 (36.7,112.1)
Inc missing	16.05 (6.0,42.9)	5.30 (0.8,37.4)	11.49 (3.4,38.5)	21.93 (7.7,62.5)	39.58 (12.0,130.7)	46.94 (20.6,107.2)	51.44 (25.3,104.6)	68.44 (32.1,145.8)
<b>Race/Ethnicity</b>								
Mexican American	13.09 (8.9,19.2)	4.18 (1.8,9.5)	10.21 (5.8,17.9)	18.19 (12.3,27.0)	28.44 (20.3,39.7)	36.67 (26.6,50.5)	41.90 (31.3,56.1)	55.31 (41.0,74.6)
Other Hispanic	13.14 (9.5,18.1)	4.71 (2.1,10.6)	10.17 (6.4,16.1)	18.49 (13.1,26.1)	28.84 (21.1,39.5)	34.99 (25.7,47.7)	40.79 (29.5,56.5)	52.13 (33.9,80.2)
White	13.80 (11.1,17.1)	5.05 (3.1,8.3)	10.73 (8.1,14.1)	19.13 (15.4,23.8)	29.70 (23.2,38.1)	37.57 (28.5,49.5)	43.92 (33.3,58.0)	55.46 (39.3,78.2)
Black	15.85 (11.9,21.0)	6.22 (3.0,12.7)	12.97 (8.0,21.0)	22.20 (16.5,29.8)	33.26 (26.6,41.5)	40.93 (32.7,51.2)	46.01 (35.6,59.5)	57.06 (41.0,79.4)
Other race	23.82 (17.4,32.6)	10.55 (5.4,20.7)	20.45 (12.2,34.3)	31.94 (23.5,43.5)	46.55 (36.5,59.4)	60.51 (44.4,82.4)	72.09 (50.9,102.1)	92.69 (65.0,132.2)

Table C-23. Marine + freshwater fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	11.64 (8.6,15.7)	3.98 (2.3,6.8)	8.86 (6.1,13.0)	16.01 (11.7,21.9)	25.21 (18.3,34.7)	32.30 (22.9,45.5)	37.56 (26.0,54.2)	48.62 (31.5,75.0)
Northeast	17.18 (13.4,22.0)	6.11 (3.8,9.8)	13.89 (10.3,18.7)	24.50 (19.0,31.6)	36.90 (28.7,47.4)	45.47 (34.8,59.3)	51.27 (38.1,68.9)	64.32 (45.4,91.1)
South	14.73 (11.4,19.0)	5.41 (2.7,10.7)	11.52 (7.6,17.5)	20.23 (15.5,26.4)	31.54 (24.9,39.9)	39.56 (31.3,50.0)	46.55 (36.7,59.0)	61.40 (46.2,81.7)
West	15.68 (12.0,20.5)	6.28 (3.7,10.7)	12.83 (8.8,18.6)	21.88 (16.4,29.2)	32.54 (25.4,41.7)	40.33 (30.8,52.8)	46.76 (35.7,61.3)	58.01 (42.1,80.0)
<b>Coastal Status</b>								
Noncoastal	14.10 (10.2,19.5)	5.01 (2.4,10.3)	11.01 (6.9,17.5)	19.45 (14.3,26.5)	30.32 (23.2,39.7)	38.80 (29.5,51.1)	45.03 (34.0,59.6)	57.37 (42.8,77.0)
Coastal	15.28 (11.8,19.8)	5.62 (4.0,7.8)	11.89 (9.2,15.4)	21.48 (16.8,27.5)	32.80 (24.2,44.5)	40.85 (28.3,59.0)	47.72 (33.6,67.9)	61.09 (40.4,92.4)
<b>Coastal/Inland Region</b>								
Pacific	15.19 (11.6,19.9)	5.78 (3.9,8.6)	12.16 (9.0,16.5)	21.67 (16.9,27.9)	31.99 (23.6,43.3)	39.68 (27.7,56.8)	44.99 (30.3,66.9)	54.57 (31.4,94.8)
Atlantic	15.82 (10.2,24.6)	6.38 (4.2,9.7)	12.82 (8.5,19.4)	22.21 (14.7,33.6)	33.05 (20.6,52.9)	41.19 (25.3,67.0)	47.14 (28.9,77.0)	60.45 (37.6,97.1)
Gulf of Mexico	16.90 (10.1,28.2)	5.42 (2.2,13.5)	11.78 (5.7,24.1)	22.80 (12.1,42.8)	37.30 (21.5,64.8)	53.10 (26.4,106.9)	59.88 (32.1,111.7)	74.16 (37.5,146.8)
Great Lakes	12.30 (8.0,18.9)	3.89 (2.3,6.7)	8.99 (5.8,13.8)	17.22 (11.3,26.2)	27.69 (17.5,43.7)	36.23 (23.4,56.1)	39.85 (22.0,72.1)	51.41 (27.2,97.3)
Inland Northeast	17.57 (11.2,27.5)	5.39 (2.7,10.7)	14.08 (8.1,24.5)	25.36 (16.0,40.2)	38.98 (24.9,61.0)	47.93 (31.5,73.0)	54.01 (36.2,80.7)	65.91 (44.5,97.5)
Inland Midwest	11.44 (7.8,16.7)	4.01 (2.0,7.9)	8.83 (5.4,14.5)	15.71 (10.7,23.1)	24.66 (17.6,34.6)	31.30 (22.3,44.0)	36.88 (25.9,52.5)	47.55 (32.4,69.8)
Inland South	13.98 (9.4,20.9)	5.10 (2.0,13.3)	11.20 (5.9,21.2)	19.12 (13.2,27.7)	29.78 (22.0,40.4)	36.71 (28.8,46.8)	42.60 (33.2,54.7)	55.22 (41.5,73.4)
Inland West	16.21 (9.8,26.9)	6.87 (2.9,16.0)	13.29 (7.3,24.1)	22.05 (13.6,35.7)	32.97 (21.5,50.7)	42.03 (26.5,66.6)	47.88 (30.9,74.2)	59.81 (39.5,90.5)

Table C-24. Marine + freshwater fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	6.71 (4.5,10.0)	1.10 (0.6,2.0)	3.44 (1.9,6.3)	8.64 (5.4,13.8)	16.74 (11.6,24.2)	24.09 (16.8,34.6)	29.66 (21.3,41.3)	42.36 (30.6,58.6)
<b>Gender</b>								
Female	5.89 (3.8,9.0)	0.98 (0.5,1.9)	2.97 (1.6,5.5)	7.60 (4.7,12.2)	15.42 (9.5,25.0)	21.83 (14.2,33.6)	26.62 (17.9,39.5)	37.34 (26.3,53.0)
Male	7.57 (5.1,11.2)	1.27 (0.7,2.4)	4.07 (2.1,7.9)	9.65 (6.2,15.0)	18.19 (13.2,25.2)	26.43 (18.9,37.0)	33.30 (23.7,46.7)	47.60 (32.4,70.0)
<b>Age</b>								
1 to <3 yrs	3.88 (2.3,6.4)	0.62 (0.3,1.3)	1.89 (1.0,3.8)	4.62 (2.8,7.7)	9.70 (5.9,16.1)	15.16 (8.3,27.6)	19.56 (10.2,37.4)	27.65 (16.2,47.1)
3 to <6 yrs	5.23 (2.8,9.9)	0.99 (0.3,3.0)	3.28 (1.1,9.5)	7.21 (3.2,16.1)	12.48 (7.2,21.6)	16.70 (11.1,25.1)	20.52 (13.5,31.1)	28.27 (19.1,41.7)
6 to <11 yrs	6.78 (3.6,12.8)	1.20 (0.5,2.8)	3.74 (1.8,7.9)	9.21 (4.7,18.0)	17.13 (8.9,32.9)	24.30 (12.0,49.0)	28.32 (15.0,53.4)	36.79 (19.9,67.9)
11 to <16 yrs	5.88 (4.0,8.6)	1.11 (0.6,2.0)	3.25 (1.9,5.6)	7.94 (5.2,12.0)	14.92 (10.0,22.3)	19.74 (12.8,30.5)	24.03 (15.3,37.7)	33.67 (19.9,56.9)
16 to <18 yrs	7.66 (4.8,12.1)	1.20 (0.7,2.1)	4.04 (2.2,7.5)	10.54 (6.3,17.8)	20.27 (12.0,34.3)	26.45 (17.2,40.7)	32.38 (20.8,50.4)	42.68 (27.9,65.2)
18 to <21 yrs	10.91 (6.5,18.5)	1.75 (1.0,3.2)	5.44 (3.2,9.3)	13.47 (8.5,21.3)	27.91 (16.1,48.5)	38.66 (22.6,66.0)	49.01 (27.3,88.1)	81.88 (29.7,225.5)
<b>Income</b>								
<\$20,000	5.90 (4.5,7.8)	1.01 (0.6,1.6)	3.07 (2.1,4.5)	7.62 (5.6,10.3)	14.65 (10.6,20.3)	21.41 (15.7,29.1)	27.07 (19.8,37.0)	39.89 (28.5,55.9)
>\$20,000	6.82 (4.3,10.7)	1.12 (0.6,2.2)	3.47 (1.8,6.7)	8.79 (5.2,14.9)	16.91 (11.2,25.5)	24.20 (16.4,35.7)	29.94 (20.9,42.8)	43.47 (30.3,62.4)
Income unknown	8.47 (3.4,21.0)	1.19 (0.6,2.4)	4.50 (1.4,14.8)	11.88 (3.2,43.7)	24.46 (6.7,89.2)	30.65 (12.5,74.9)	34.11 (18.7,62.2)	45.38 (25.4,81.1)
<b>Income, finer detail</b>								
<\$20,000	5.90 (4.5,7.8)	1.01 (0.6,1.6)	3.07 (2.1,4.5)	7.62 (5.6,10.3)	14.65 (10.6,20.3)	21.41 (15.7,29.1)	27.07 (19.8,37.0)	39.89 (28.5,55.9)
\$20k-\$45k	6.56 (3.8,11.3)	1.03 (0.6,1.8)	3.16 (1.7,5.8)	8.21 (4.6,14.7)	16.36 (9.8,27.3)	23.52 (14.6,37.9)	28.73 (18.8,43.8)	43.83 (26.1,73.6)
\$45k-\$75k	6.40 (4.2,9.8)	0.97 (0.5,1.8)	3.24 (1.7,6.3)	8.39 (4.9,14.3)	16.15 (10.4,25.1)	22.49 (14.4,35.1)	27.62 (17.0,45.0)	44.70 (26.6,75.0)
\$75k+	7.33 (4.5,12.1)	1.27 (0.5,3.0)	3.84 (1.9,7.9)	9.60 (5.5,16.9)	18.11 (11.7,28.1)	26.39 (16.1,43.3)	32.14 (20.7,49.9)	43.40 (30.4,62.0)
>\$20,000	6.34 (3.5,11.3)	1.69 (0.4,7.9)	4.28 (1.8,9.9)	8.45 (4.6,15.7)	15.46 (8.1,29.7)	21.70 (10.7,43.8)	25.19 (12.1,52.2)	35.13 (15.2,81.0)
Inc Ref/DK	7.65 (2.9,20.3)	1.15 (0.5,2.5)	4.40 (1.2,15.5)	10.48 (2.9,37.5)	21.00 (5.7,78.0)	26.43 (10.2,68.5)	31.57 (14.2,70.2)	40.24 (21.2,76.2)
Inc missing	9.61 (2.8,32.8)	1.33 (0.4,5.0)	4.69 (1.1,20.8)	13.62 (2.7,69.3)	25.99 (6.2,108.6)	33.34 (11.2,99.1)	37.71 (15.2,93.5)	52.36 (19.1,143.6)
<b>Race/Ethnicity</b>								
Mexican American	5.09 (3.7,7.0)	0.88 (0.6,1.4)	2.76 (1.7,4.5)	6.54 (4.7,9.2)	12.71 (9.1,17.8)	18.16 (12.7,25.9)	22.40 (15.1,33.2)	33.09 (21.0,52.0)
Other Hispanic	4.62 (2.5,8.7)	0.64 (0.2,1.8)	2.09 (1.0,4.5)	5.99 (3.2,11.1)	11.88 (6.2,22.7)	17.09 (8.8,33.3)	21.88 (11.9,40.3)	32.99 (18.1,60.0)
White	6.75 (3.7,12.3)	1.06 (0.5,2.4)	3.30 (1.4,7.6)	8.49 (4.3,16.7)	16.70 (9.7,28.8)	24.59 (14.3,42.4)	30.45 (18.3,50.6)	44.70 (27.1,73.9)
Black	6.64 (4.8,9.2)	1.51 (1.0,2.4)	4.46 (3.0,6.7)	9.22 (6.7,12.7)	15.65 (10.8,22.7)	20.67 (13.5,31.7)	24.66 (15.6,39.1)	33.85 (20.7,55.4)
Other race	11.45 (6.4,20.6)	2.04 (0.8,4.9)	7.23 (2.7,19.2)	16.91 (7.0,41.0)	27.78 (16.8,45.8)	35.61 (25.6,49.5)	42.64 (30.2,60.2)	54.85 (37.1,81.1)

Table C-24. Marine + freshwater fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.69 (3.5,6.4)	0.84 (0.4,1.8)	2.46 (1.3,4.6)	6.24 (4.0,9.6)	11.75 (8.6,16.1)	16.75 (11.6,24.3)	19.93 (12.0,33.1)	28.06 (14.2,55.4)
Northeast	8.38 (4.3,16.3)	1.19 (0.7,1.9)	3.86 (2.5,6.0)	9.36 (6.5,13.4)	21.45 (10.1,45.3)	33.74 (12.5,91.2)	41.66 (15.4,112.9)	71.58 (17.3,297.0)
South	6.51 (4.4,9.7)	1.15 (0.6,2.1)	3.48 (2.0,6.0)	8.50 (5.5,13.2)	15.96 (10.9,23.5)	22.20 (15.6,31.6)	27.16 (19.2,38.5)	38.74 (26.9,55.8)
West	7.92 (4.2,14.9)	1.36 (0.6,3.3)	4.28 (1.7,10.7)	11.03 (4.6,26.3)	20.64 (10.2,41.6)	27.81 (15.9,48.7)	33.01 (20.3,53.6)	41.22 (24.5,69.4)
<b>Coastal Status</b>								
Noncoastal	6.61 (3.9,11.1)	1.09 (0.6,2.1)	3.40 (1.7,6.6)	8.49 (4.9,14.6)	16.45 (9.9,27.4)	23.56 (14.1,39.5)	29.09 (17.5,48.2)	41.22 (24.4,69.6)
Coastal	6.88 (5.1,9.3)	1.11 (0.6,2.0)	3.50 (2.0,6.1)	8.91 (6.0,13.3)	17.31 (13.0,23.0)	24.77 (18.8,32.7)	30.61 (23.1,40.7)	42.68 (29.6,61.5)
<b>Coastal/Inland Region</b>								
Pacific	6.87 (4.7,10.0)	0.96 (0.5,1.9)	3.28 (1.7,6.3)	9.23 (4.8,17.6)	18.11 (11.7,28.2)	25.65 (16.4,40.0)	31.98 (20.7,49.4)	41.69 (23.5,73.9)
Atlantic	6.69 (4.6,9.6)	1.33 (0.7,2.5)	3.96 (2.3,6.9)	8.97 (6.0,13.5)	16.30 (11.2,23.6)	22.82 (15.8,32.9)	27.19 (18.2,40.5)	37.22 (23.9,57.9)
Gulf of Mexico	9.80 (3.2,30.3)	1.45 (0.4,5.0)	5.00 (1.2,21.5)	12.45 (3.3,46.4)	24.42 (7.6,78.0)	33.09 (13.5,81.0)	44.60 (16.5,120.4)	81.56 (19.0,350.5)
Great Lakes	4.43 (1.8,10.7)	0.86 (0.4,1.8)	2.33 (1.4,3.9)	5.21 (2.2,12.5)	10.79 (3.3,35.2)	16.93 (5.8,49.5)	20.82 (6.9,62.9)	31.30 (10.9,90.2)
Inland Northeast	8.94 (3.6,22.2)	1.03 (0.6,1.7)	3.36 (2.0,5.6)	8.46 (5.3,13.6)	25.91 (7.2,93.8)	40.43 (8.7,188.1)	56.53 (9.1,352.7)	81.88 (12.1,555.8)
Inland Midwest	4.77 (2.9,7.8)	0.85 (0.4,2.1)	2.54 (1.1,6.0)	6.50 (3.2,13.1)	12.02 (7.6,18.9)	16.66 (11.5,24.1)	19.71 (14.5,26.8)	26.70 (18.2,39.3)
Inland South	5.78 (3.8,8.9)	1.05 (0.6,1.8)	3.11 (1.9,5.2)	7.99 (4.8,13.2)	14.40 (9.5,21.9)	19.64 (12.9,30.0)	23.48 (15.1,36.6)	33.51 (21.4,52.5)
Inland West	8.79 (3.2,23.9)	1.82 (0.5,6.8)	5.37 (1.4,21.2)	12.64 (3.8,42.5)	22.06 (8.1,60.4)	28.04 (12.2,64.7)	33.11 (15.1,72.8)	41.22 (20.4,83.2)

Table C-25. Marine + estuarine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	15.58 (12.2,20.0)	3.39 (1.9,5.9)	10.28 (7.0,15.1)	21.67 (16.6,28.3)	37.10 (29.8,46.2)	49.70 (39.8,62.0)	58.85 (47.3,73.2)	78.69 (62.8,98.6)
<b>Gender</b>								
Female	14.23 (10.7,18.9)	3.08 (1.8,5.4)	9.50 (6.3,14.4)	19.88 (14.8,26.7)	33.87 (26.3,43.6)	44.72 (34.9,57.4)	53.02 (41.3,68.0)	70.21 (54.6,90.2)
Male	17.21 (13.7,21.6)	3.76 (2.2,6.3)	11.34 (8.0,16.1)	23.73 (18.7,30.2)	40.72 (33.1,50.1)	55.17 (44.7,68.1)	64.97 (52.9,79.7)	87.93 (69.8,110.8)
<b>Age</b>								
1 to <3 yrs	4.24 (2.3,7.9)	0.56 (0.3,1.0)	1.90 (0.9,4.0)	4.63 (2.8,7.7)	10.56 (5.7,19.7)	16.43 (8.6,31.4)	22.70 (10.1,50.8)	33.20 (17.4,63.2)
3 to <6 yrs	5.64 (3.1,10.1)	0.97 (0.4,2.4)	3.31 (1.4,8.0)	7.55 (3.9,14.6)	13.69 (8.2,23.0)	19.25 (11.7,31.7)	23.83 (14.4,39.5)	33.07 (21.5,50.8)
6 to <11 yrs	7.89 (4.4,14.3)	1.24 (0.6,2.4)	4.11 (2.1,8.0)	9.99 (5.9,16.8)	20.15 (10.8,37.7)	28.19 (15.2,52.3)	36.35 (17.7,74.5)	49.36 (25.8,94.3)
11 to <16 yrs	7.21 (4.8,10.9)	1.19 (0.7,2.1)	3.82 (2.0,7.2)	9.35 (6.0,14.5)	17.88 (11.6,27.4)	25.97 (16.8,40.1)	32.42 (21.2,49.5)	44.69 (26.5,75.4)
16 to <18 yrs	9.12 (6.3,13.3)	1.50 (0.9,2.5)	4.77 (2.8,8.0)	12.70 (7.8,20.7)	22.98 (16.1,32.7)	32.01 (22.4,45.7)	39.62 (26.7,58.7)	53.09 (37.3,75.6)
18 to <21 yrs	14.55 (8.1,26.1)	2.24 (1.2,4.2)	7.30 (4.2,12.7)	18.69 (10.3,34.0)	37.70 (19.5,72.8)	51.84 (29.0,92.8)	65.65 (35.1,122.8)	97.94 (45.6,210.6)
21 to <35 yrs	16.61 (11.8,23.4)	4.37 (2.1,9.3)	11.43 (6.8,19.2)	22.78 (15.5,33.5)	37.54 (29.0,48.6)	49.92 (39.3,63.5)	59.44 (46.9,75.3)	82.09 (62.4,108.0)
35 to <50 yrs	18.42 (14.9,22.8)	6.70 (4.3,10.6)	14.03 (10.7,18.5)	25.14 (20.1,31.4)	39.58 (31.4,49.9)	51.36 (40.4,65.3)	60.52 (47.4,77.3)	76.94 (57.0,103.9)
50 to <65 yrs	23.14 (16.4,32.7)	8.68 (5.0,15.1)	17.54 (12.1,25.5)	31.40 (22.9,43.0)	51.51 (34.3,77.3)	63.94 (44.8,91.3)	73.67 (51.6,105.2)	92.14 (67.4,126.0)
65+ yrs	15.86 (12.0,21.0)	4.86 (3.3,7.2)	11.16 (7.9,15.7)	21.58 (15.8,29.5)	36.71 (28.5,47.3)	47.08 (35.5,62.4)	56.21 (43.3,72.9)	74.45 (57.2,97.0)
<b>Income</b>								
<\$20,000	12.45 (9.9,15.6)	2.20 (1.5,3.3)	7.59 (5.3,10.9)	16.63 (13.2,21.0)	29.81 (24.0,37.0)	41.26 (33.3,51.1)	50.13 (40.1,62.7)	69.73 (53.7,90.5)
>\$20,000	16.09 (12.6,20.6)	3.69 (2.1,6.5)	10.80 (7.4,15.7)	22.41 (17.3,29.1)	37.89 (30.5,47.0)	50.82 (40.7,63.4)	60.09 (48.1,75.0)	80.11 (63.7,100.7)
Income unknown	17.93 (9.4,34.2)	3.98 (1.1,14.0)	12.36 (4.4,34.8)	25.93 (12.3,54.8)	41.99 (25.9,67.9)	55.09 (35.2,86.3)	63.30 (43.7,91.7)	81.09 (57.8,113.7)
<b>Income, finer detail</b>								
<\$20,000	12.45 (9.9,15.6)	2.20 (1.5,3.3)	7.59 (5.3,10.9)	16.63 (13.2,21.0)	29.81 (24.0,37.0)	41.26 (33.3,51.1)	50.13 (40.1,62.7)	69.73 (53.7,90.5)
\$20k-\$45k	13.78 (10.1,18.7)	2.92 (1.6,5.2)	8.90 (5.7,13.9)	18.88 (13.6,26.2)	32.91 (24.9,43.6)	43.56 (34.0,55.9)	53.19 (40.0,70.7)	72.99 (55.0,96.9)
\$45k-\$75k	15.26 (11.6,20.1)	3.39 (2.1,5.6)	10.03 (6.9,14.6)	20.97 (15.6,28.2)	36.59 (27.9,48.0)	48.83 (37.7,63.2)	58.75 (45.3,76.1)	76.26 (57.5,101.1)
\$75k+	18.58 (14.8,23.4)	4.94 (2.6,9.4)	13.34 (9.4,19.0)	26.00 (20.7,32.7)	42.99 (34.8,53.1)	55.57 (45.2,68.3)	64.98 (52.6,80.2)	85.91 (67.9,108.8)
>\$20,000	15.93 (9.8,25.9)	4.49 (1.9,10.6)	11.62 (6.2,21.7)	22.60 (13.3,38.4)	34.61 (22.1,54.3)	43.97 (27.2,71.1)	54.36 (34.1,86.7)	77.16 (43.9,135.7)
Inc Ref/DK	17.52 (10.0,30.6)	4.22 (1.3,13.7)	12.87 (4.7,35.1)	25.80 (13.1,50.8)	40.54 (26.7,61.6)	51.25 (35.9,73.2)	58.91 (42.1,82.4)	71.40 (50.8,100.4)
Inc missing	18.70 (6.5,53.6)	3.69 (0.6,21.1)	11.25 (3.0,41.6)	25.95 (8.1,83.2)	46.37 (16.5,130.2)	60.76 (25.4,145.4)	79.38 (28.3,222.4)	101.47 (41.9,245.5)
<b>Race/Ethnicity</b>								
Mexican American	13.61 (9.8,18.9)	2.45 (1.5,4.1)	8.41 (5.1,13.8)	19.01 (13.2,27.3)	33.46 (24.1,46.4)	45.32 (32.6,63.0)	52.84 (40.2,69.4)	72.26 (53.8,97.1)
Other Hispanic	13.66 (10.2,18.4)	2.29 (1.4,3.6)	8.12 (5.6,11.7)	19.50 (13.7,27.8)	33.39 (24.9,44.8)	45.99 (33.6,63.0)	56.32 (39.0,81.4)	73.21 (54.4,98.6)
White	15.21 (11.9,19.4)	3.44 (1.8,6.5)	10.17 (6.9,15.0)	21.07 (16.3,27.2)	36.04 (28.8,45.0)	47.62 (38.1,59.5)	56.68 (45.3,71.0)	76.94 (60.6,97.7)
Black	14.72 (11.7,18.6)	3.66 (2.4,5.5)	10.18 (7.3,14.1)	20.35 (15.8,26.2)	34.39 (27.3,43.3)	45.41 (36.3,56.8)	54.39 (42.7,69.3)	69.11 (54.2,88.1)
Other race	25.84 (17.0,39.4)	7.56 (2.9,19.8)	19.41 (10.5,36.0)	36.74 (23.5,57.5)	58.37 (40.0,85.3)	71.64 (54.0,95.1)	85.57 (61.2,119.6)	111.94 (78.5,159.7)

Table C-25. Marine + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	10.68 (7.8,14.6)	2.28 (1.2,4.4)	7.12 (4.3,11.9)	14.54 (10.3,20.5)	25.19 (18.7,33.9)	33.32 (25.0,44.5)	40.23 (30.0,53.9)	56.33 (42.4,74.8)
Northeast	20.24 (15.7,26.1)	4.04 (2.9,5.7)	13.75 (10.4,18.1)	28.54 (22.5,36.2)	49.16 (36.3,66.5)	63.37 (46.9,85.7)	74.11 (54.5,100.8)	98.25 (69.8,138.4)
South	15.49 (11.7,20.5)	3.59 (2.0,6.5)	10.51 (6.9,16.1)	21.25 (15.8,28.5)	35.88 (28.3,45.5)	47.65 (37.9,59.8)	57.44 (45.1,73.2)	80.28 (59.4,108.6)
West	17.76 (13.3,23.7)	4.38 (2.4,8.1)	12.74 (8.7,18.6)	25.39 (18.5,34.9)	41.36 (31.3,54.7)	52.91 (41.4,67.6)	61.52 (48.1,78.7)	79.21 (60.7,103.4)
<b>Coastal Status</b>								
Noncoastal	14.38 (10.0,20.6)	3.04 (1.6,5.7)	9.27 (5.8,14.8)	19.69 (13.7,28.4)	34.06 (24.8,46.7)	46.33 (33.1,64.8)	55.44 (39.6,77.5)	74.33 (53.8,102.7)
Coastal	17.48 (14.3,21.3)	4.06 (2.8,5.9)	12.03 (9.4,15.4)	24.55 (19.8,30.4)	41.04 (33.2,50.8)	54.07 (43.7,66.9)	63.10 (50.6,78.6)	83.46 (66.0,105.5)
<b>Coastal/Inland Region</b>								
Pacific	17.31 (13.6,22.0)	3.58 (2.3,5.5)	12.24 (8.8,17.1)	25.12 (19.3,32.7)	41.21 (32.8,51.8)	52.61 (41.3,67.0)	61.24 (47.7,78.6)	79.10 (58.7,106.6)
Atlantic	18.52 (12.7,27.0)	4.94 (3.1,7.8)	13.31 (8.7,20.4)	25.80 (16.7,39.8)	42.27 (28.7,62.3)	55.45 (39.4,78.1)	64.50 (45.9,90.5)	85.02 (62.0,116.5)
Gulf of Mexico	20.03 (12.2,33.0)	4.79 (1.6,14.1)	13.05 (6.7,25.4)	27.45 (15.8,47.7)	45.90 (31.2,67.6)	64.85 (39.2,107.4)	76.63 (47.5,123.5)	101.53 (66.0,156.1)
Great Lakes	12.40 (8.8,17.5)	2.60 (1.6,4.3)	7.96 (5.5,11.5)	16.97 (11.4,25.2)	30.07 (21.0,43.0)	40.53 (28.7,57.3)	47.25 (31.8,70.3)	62.23 (38.8,99.7)
Inland Northeast	20.56 (13.1,32.3)	3.42 (2.1,5.5)	13.13 (8.6,20.0)	29.44 (18.8,46.1)	51.36 (29.8,88.5)	66.84 (38.3,116.8)	77.08 (45.9,129.4)	107.39 (55.6,207.4)
Inland Midwest	10.18 (6.3,16.3)	2.18 (1.0,4.9)	6.89 (3.5,13.4)	13.97 (8.5,23.0)	23.88 (15.7,36.4)	31.47 (21.5,46.1)	37.37 (26.0,53.8)	53.92 (34.3,84.7)
Inland South	13.39 (8.8,20.4)	2.94 (1.5,5.7)	9.27 (5.1,16.8)	18.53 (12.1,28.4)	30.79 (21.7,43.7)	40.50 (29.3,55.9)	48.90 (34.2,70.0)	65.26 (46.9,90.9)
Inland West	18.20 (11.4,29.0)	5.28 (1.8,15.3)	13.22 (7.7,22.8)	25.58 (16.2,40.3)	41.45 (27.0,63.7)	52.98 (35.7,78.7)	61.62 (41.8,90.9)	79.27 (54.1,116.2)

DRAFT DOCUMENT

Table C-26. Marine + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	17.97 (14.8,23.4)	6.01 (3.6,9.9)	13.58 (9.9,18.6)	25.35 (20.2,31.8)	41.12 (33.5,50.5)	54.38 (43.6,67.9)	63.23 (51.0,78.4)	82.82 (66.2,103.6)
<b>Gender</b>								
Female	15.90 (12.8,22.0)	5.36 (3.1,9.3)	12.36 (8.6,17.7)	23.16 (17.7,30.3)	37.34 (29.4,47.4)	48.77 (37.8,62.9)	56.93 (44.1,73.4)	73.67 (57.3,94.7)
Male	20.65 (16.9,25.8)	7.02 (4.5,11.0)	15.28 (11.6,20.1)	28.17 (22.7,35.0)	46.26 (37.9,56.5)	60.45 (49.0,74.6)	70.33 (57.1,86.7)	91.98 (73.4,115.3)
<b>Age</b>								
21 to <35 yrs	15.31 (11.8,23.4)	4.37 (2.1,9.3)	11.43 (6.8,19.2)	22.78 (15.5,33.5)	37.54 (29.0,48.6)	49.92 (39.3,63.5)	59.44 (46.9,75.3)	82.09 (62.4,108.0)
35 to <50 yrs	18.39 (14.9,22.8)	6.70 (4.3,10.6)	14.03 (10.7,18.5)	25.14 (20.1,31.4)	39.58 (31.4,49.9)	51.36 (40.4,65.3)	60.52 (47.4,77.3)	76.94 (57.0,103.9)
50 to <65 yrs	21.46 (16.4,32.7)	8.68 (5.0,15.1)	17.54 (12.1,25.5)	31.40 (22.9,43.0)	51.51 (34.3,77.3)	63.94 (44.8,91.3)	73.67 (51.6,105.2)	92.14 (67.4,126.0)
65+ yrs	16.70 (12.0,21.0)	4.86 (3.3,7.2)	11.16 (7.9,15.7)	21.58 (15.8,29.5)	36.71 (28.5,47.3)	47.08 (35.5,62.4)	56.21 (43.3,72.9)	74.45 (57.2,97.0)
<b>WCA (13-49 years)</b>	13.60 (11.0,19.3)	3.55 (2.0,6.4)	10.29 (6.6,16.1)	20.36 (15.0,27.6)	33.60 (26.4,42.7)	43.92 (34.9,55.3)	51.13 (41.4,63.1)	68.97 (53.9,88.2)
<b>Income</b>								
<\$20,000	14.64 (11.9,19.0)	3.67 (2.2,6.0)	10.42 (7.2,15.1)	20.27 (16.1,25.6)	33.54 (27.1,41.4)	45.41 (36.8,56.0)	54.62 (43.3,68.9)	75.61 (57.2,99.9)
>\$20,000	18.58 (15.3,24.1)	6.49 (4.0,10.5)	14.16 (10.4,19.2)	26.15 (20.8,32.8)	42.15 (34.2,52.0)	55.36 (44.3,69.2)	64.26 (51.8,79.8)	83.39 (66.6,104.4)
Income unknown	18.07 (11.7,36.1)	6.68 (1.7,25.7)	15.55 (6.9,35.3)	28.12 (16.8,47.0)	46.56 (28.5,76.1)	58.10 (39.1,86.2)	65.61 (47.5,90.7)	81.09 (59.1,111.3)
<b>Income, finer detail</b>								
<\$20,000	14.64 (11.9,19.0)	3.67 (2.2,6.0)	10.42 (7.2,15.1)	20.27 (16.1,25.6)	33.54 (27.1,41.4)	45.41 (36.8,56.0)	54.62 (43.3,68.9)	75.61 (57.2,99.9)
\$20k-\$45k	15.40 (12.3,21.2)	5.01 (2.8,8.8)	11.67 (7.9,17.2)	21.94 (16.7,28.8)	36.30 (28.3,46.6)	47.65 (37.3,60.9)	56.73 (43.5,74.0)	74.38 (58.5,94.5)
\$45k-\$75k	17.74 (13.8,23.8)	5.88 (3.7,9.4)	13.06 (9.3,18.4)	24.47 (18.5,32.3)	40.79 (31.1,53.5)	54.43 (41.0,72.3)	63.11 (48.3,82.4)	81.05 (61.6,106.7)
\$75k+	21.93 (18.1,27.7)	8.60 (5.9,12.6)	17.49 (13.3,23.0)	30.25 (24.6,37.2)	48.19 (39.1,59.5)	61.06 (49.2,75.8)	70.18 (56.3,87.4)	88.48 (69.6,112.5)
>\$20,000	17.49 (11.5,29.2)	7.02 (2.9,16.9)	14.55 (8.2,25.8)	25.29 (15.6,41.1)	37.29 (23.3,59.7)	49.36 (30.6,79.7)	58.04 (36.1,93.4)	83.44 (44.5,156.6)
Inc Ref/DK	18.18 (12.3,33.0)	6.73 (2.0,23.1)	15.68 (7.3,33.8)	28.24 (17.2,46.3)	44.84 (29.5,68.2)	55.09 (38.9,78.0)	60.64 (44.9,82.0)	74.05 (50.3,109.0)
Inc missing	17.82 (8.1,57.8)	5.86 (1.1,29.9)	15.00 (4.7,47.5)	28.12 (11.5,68.5)	48.60 (20.9,112.9)	63.70 (28.7,141.2)	79.38 (32.1,196.6)	122.57 (31.2,481.0)
<b>Race/Ethnicity</b>								
Mexican American	16.85 (12.5,26.7)	5.30 (2.6,10.7)	13.72 (8.3,22.7)	24.90 (17.2,36.1)	40.15 (28.7,56.2)	51.80 (37.9,70.7)	60.00 (45.2,79.7)	80.87 (58.9,111.0)
Other Hispanic	16.99 (12.7,27.2)	5.95 (2.9,12.0)	13.69 (8.7,21.6)	25.93 (17.1,39.3)	40.67 (29.1,56.8)	54.90 (36.6,82.4)	61.53 (44.7,84.7)	81.57 (58.7,113.4)
White	17.47 (14.1,22.0)	5.71 (3.6,9.1)	12.90 (9.6,17.4)	24.13 (19.3,30.2)	39.09 (31.3,48.9)	51.68 (41.4,64.5)	60.58 (48.5,75.6)	79.21 (62.3,100.7)
Black	17.59 (14.0,24.2)	6.68 (3.8,11.8)	14.06 (9.7,20.4)	25.32 (18.9,33.9)	39.95 (31.2,51.2)	51.76 (40.1,66.9)	59.46 (46.9,75.3)	72.46 (54.5,96.3)
Other race	27.63 (20.9,44.5)	11.57 (6.5,20.6)	23.88 (15.8,36.0)	41.45 (29.2,58.9)	63.61 (44.9,90.2)	80.24 (56.4,114.2)	94.04 (63.8,138.6)	121.64 (80.3,184.2)

Table C-26. Marine + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	12.35 (9.3,17.1)	4.07 (2.3,7.1)	9.21 (6.0,14.1)	17.11 (12.3,23.8)	28.17 (21.0,37.8)	36.67 (27.5,48.9)	43.28 (32.2,58.2)	59.46 (44.9,78.7)
Northeast	23.50 (19.0,30.4)	7.95 (5.5,11.5)	18.48 (14.3,24.0)	33.23 (26.5,41.6)	53.44 (40.8,70.0)	67.36 (51.7,87.8)	75.65 (59.1,96.8)	99.76 (74.9,132.9)
South	17.63 (14.1,24.5)	6.52 (3.4,12.6)	13.77 (9.5,19.9)	25.05 (19.2,32.7)	40.08 (32.0,50.2)	53.20 (41.8,67.7)	62.57 (49.2,79.6)	84.36 (64.2,110.9)
West	20.43 (16.0,28.1)	7.63 (5.3,11.1)	16.74 (11.8,23.7)	29.15 (22.0,38.5)	45.73 (34.6,60.4)	57.76 (44.3,75.3)	65.85 (51.0,85.0)	82.61 (62.9,108.5)
<b>Coastal Status</b>								
Noncoastal	15.99 (12.2,24.0)	5.32 (2.8,10.0)	12.31 (8.0,19.0)	23.23 (16.7,32.3)	38.05 (28.2,51.3)	51.15 (36.3,72.0)	59.72 (43.0,83.0)	77.32 (56.9,105.1)
Coastal	21.45 (17.0,25.7)	7.41 (5.4,10.3)	15.77 (12.3,20.2)	28.44 (22.5,36.0)	45.31 (36.2,56.7)	58.52 (47.0,72.9)	68.02 (54.6,84.8)	88.23 (69.4,112.2)
<b>Coastal/Inland Region</b>								
Pacific	20.74 (16.0,26.3)	7.14 (4.8,10.6)	16.28 (11.6,22.9)	28.34 (21.9,36.7)	44.45 (34.9,56.6)	56.87 (44.5,72.7)	63.94 (48.6,84.1)	81.09 (58.7,111.9)
Atlantic	24.50 (15.3,32.7)	8.74 (5.6,13.5)	17.36 (11.1,27.1)	30.08 (19.3,46.8)	47.56 (33.1,68.3)	61.01 (44.4,83.9)	70.66 (51.9,96.2)	89.17 (63.2,125.8)
Gulf of Mexico	21.47 (15.4,36.0)	7.91 (3.8,16.4)	16.42 (10.5,25.7)	32.27 (19.8,52.7)	52.27 (34.1,80.2)	70.38 (42.6,116.2)	83.23 (50.3,137.8)	107.36 (68.6,167.9)
Great Lakes	16.16 (10.6,21.1)	5.11 (3.0,8.6)	10.96 (7.4,16.2)	20.32 (14.0,29.5)	32.79 (22.3,48.1)	43.09 (29.4,63.2)	50.34 (33.9,74.8)	64.94 (40.6,103.8)
Inland Northeast	22.70 (15.5,37.6)	6.74 (3.7,12.1)	18.26 (11.3,29.5)	34.20 (22.1,52.9)	54.96 (33.7,89.7)	69.28 (42.9,112.0)	77.35 (50.9,117.7)	101.73 (65.1,158.9)
Inland Midwest	10.97 (7.8,18.6)	3.83 (2.0,7.3)	8.82 (5.1,15.2)	16.31 (10.3,25.7)	26.66 (17.7,40.3)	34.23 (23.8,49.3)	40.23 (28.1,57.6)	57.03 (37.2,87.4)
Inland South	14.25 (10.4,25.0)	5.53 (2.4,12.9)	12.21 (6.9,21.6)	21.97 (14.3,33.8)	34.40 (24.7,47.8)	44.74 (32.2,62.1)	53.39 (37.3,76.5)	69.92 (49.8,98.1)
Inland West	20.16 (13.9,34.9)	8.10 (4.8,13.8)	17.38 (10.5,28.7)	30.62 (18.9,49.7)	47.32 (29.5,75.9)	58.81 (38.6,89.6)	68.29 (44.0,106.0)	84.69 (57.8,124.0)

DRAFT DOCUMENT

Table C-27. Marine + estuarine fish usual fish consumption rate estimates, youth <21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	7.31 (5.4,12.1)	1.21 (0.7,2.2)	3.86 (2.2,6.9)	9.92 (6.6,15.0)	20.46 (13.8,30.4)	30.05 (20.5,44.2)	39.04 (25.3,60.3)	56.74 (39.9,80.7)
<b>Gender</b>								
Female	6.44 (4.7,11.2)	1.08 (0.6,2.0)	3.37 (1.9,5.9)	8.88 (5.9,13.4)	18.51 (12.2,28.1)	27.30 (17.6,42.3)	35.44 (21.0,59.7)	50.60 (32.6,78.6)
Male	8.21 (6.1,13.4)	1.37 (0.8,2.4)	4.39 (2.5,7.8)	11.05 (7.3,16.8)	22.65 (15.2,33.9)	33.09 (22.7,48.1)	41.92 (28.9,60.9)	65.65 (42.9,100.6)
<b>Age</b>								
1 to <3 yrs	3.57 (2.3,7.9)	0.56 (0.3,1.0)	1.90 (0.9,4.0)	4.63 (2.8,7.7)	10.56 (5.7,19.7)	16.43 (8.6,31.4)	22.70 (10.1,50.8)	33.20 (17.4,63.2)
3 to <6 yrs	4.79 (3.1,10.1)	0.97 (0.4,2.4)	3.31 (1.4,8.0)	7.55 (3.9,14.6)	13.69 (8.2,23.0)	19.25 (11.7,31.7)	23.83 (14.4,39.5)	33.07 (21.5,50.8)
6 to <11 yrs	7.04 (4.4,14.3)	1.24 (0.6,2.4)	4.11 (2.1,8.0)	9.99 (5.9,16.8)	20.15 (10.8,37.7)	28.19 (15.2,52.3)	36.35 (17.7,74.5)	49.36 (25.8,94.3)
11 to <16 yrs	7.28 (4.8,10.9)	1.19 (0.7,2.1)	3.82 (2.0,7.2)	9.35 (6.0,14.5)	17.88 (11.6,27.4)	25.97 (16.8,40.1)	32.42 (21.2,49.5)	44.69 (26.5,75.4)
16 to <18 yrs	8.26 (6.3,13.3)	1.50 (0.9,2.5)	4.77 (2.8,8.0)	12.70 (7.8,20.7)	22.98 (16.1,32.7)	32.01 (22.4,45.7)	39.62 (26.7,58.7)	53.09 (37.3,75.6)
18 to <21 yrs	12.85 (8.1,26.1)	2.24 (1.2,4.2)	7.30 (4.2,12.7)	18.69 (10.3,34.0)	37.70 (19.5,72.8)	51.84 (29.0,92.8)	65.65 (35.1,122.8)	97.94 (45.6,210.6)
<b>Income</b>								
<\$20,000	7.07 (5.4,9.3)	1.12 (0.7,1.8)	3.46 (2.4,5.0)	8.65 (6.2,12.0)	17.93 (13.1,24.5)	26.70 (19.8,36.0)	33.93 (24.9,46.2)	49.66 (37.1,66.5)
>\$20,000	7.32 (5.3,12.6)	1.23 (0.6,2.4)	3.91 (2.1,7.4)	10.06 (6.3,16.1)	20.47 (13.4,31.2)	29.78 (20.4,43.6)	38.86 (25.2,59.8)	57.04 (39.6,82.1)
Income unknown	8.25 (3.9,36.1)	1.46 (0.7,3.2)	5.45 (1.6,18.2)	14.75 (4.1,53.1)	33.70 (8.1,140.9)	44.45 (15.5,127.1)	52.62 (22.2,124.8)	74.53 (32.0,173.8)
<b>Income, finer detail</b>								
<\$20,000	7.07 (5.4,9.3)	1.12 (0.7,1.8)	3.46 (2.4,5.0)	8.65 (6.2,12.0)	17.93 (13.1,24.5)	26.70 (19.8,36.0)	33.93 (24.9,46.2)	49.66 (37.1,66.5)
\$20k-\$45k	6.52 (4.2,14.5)	1.12 (0.6,2.0)	3.43 (1.9,6.2)	9.26 (5.2,16.5)	19.15 (11.0,33.4)	28.09 (16.6,47.5)	37.73 (19.1,74.6)	59.48 (27.6,128.2)
\$45k-\$75k	7.10 (5.0,10.7)	1.05 (0.6,1.8)	3.46 (1.9,6.2)	9.03 (5.9,13.8)	18.89 (12.8,27.9)	26.64 (17.5,40.5)	33.55 (21.0,53.6)	50.70 (28.4,90.6)
\$75k+	8.08 (5.7,14.1)	1.43 (0.6,3.2)	4.56 (2.2,9.6)	11.38 (6.9,18.9)	22.99 (14.3,37.0)	33.48 (21.2,52.8)	42.68 (26.5,68.7)	61.00 (42.4,87.7)
>\$20,000	7.82 (4.8,14.2)	1.87 (0.5,6.7)	4.77 (2.6,8.7)	10.99 (6.2,19.5)	19.33 (11.2,33.4)	25.35 (13.0,49.5)	29.23 (11.1,76.6)	48.39 (19.7,119.0)
Inc Ref/DK	7.59 (3.3,32.5)	1.29 (0.6,2.7)	4.82 (1.8,12.8)	13.88 (3.5,55.6)	28.90 (6.8,122.7)	41.47 (10.5,163.5)	49.31 (14.6,166.9)	61.30 (27.4,137.1)
Inc missing	9.21 (3.3,58.2)	1.56 (0.4,6.0)	6.33 (1.0,38.9)	17.44 (3.1,98.5)	39.68 (6.4,245.6)	51.81 (13.0,207.3)	63.47 (18.0,224.2)	88.68 (28.3,278.2)
<b>Race/Ethnicity</b>								
Mexican American	6.55 (4.8,8.8)	1.08 (0.7,1.6)	3.29 (2.2,4.8)	8.39 (6.1,11.6)	16.28 (11.6,22.8)	23.57 (16.3,34.1)	29.15 (19.4,43.8)	42.89 (26.2,70.2)
Other Hispanic	5.91 (1.9,11.8)	0.73 (0.3,1.9)	2.39 (1.1,5.2)	6.09 (2.5,14.6)	12.09 (4.8,30.2)	17.41 (6.9,44.2)	22.76 (10.2,50.7)	32.11 (12.7,80.9)
White	6.75 (4.2,15.5)	1.15 (0.5,2.7)	3.60 (1.6,8.2)	9.53 (5.1,17.9)	20.53 (10.8,39.0)	30.43 (16.5,56.1)	39.96 (20.3,78.5)	60.72 (31.3,117.7)
Black	8.06 (4.8,11.1)	1.51 (1.0,2.4)	4.66 (3.2,6.8)	9.90 (6.5,15.1)	17.41 (10.9,27.9)	23.43 (13.9,39.5)	28.02 (15.8,49.7)	38.11 (19.4,74.9)
Other race	13.21 (8.7,28.8)	2.63 (1.0,6.6)	10.04 (3.5,29.0)	22.83 (9.9,52.6)	42.18 (20.2,88.2)	52.07 (34.1,79.4)	59.50 (41.1,86.1)	75.53 (46.0,123.9)

Table C-27. Marine + estuarine fish usual fish consumption rate estimates, youth <21 year (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	5.53 (4.1,7.9)	0.90 (0.4,2.0)	2.66 (1.4,5.1)	7.29 (4.4,12.1)	13.90 (9.5,20.2)	20.89 (13.4,32.7)	26.81 (16.6,43.2)	42.31 (27.3,65.5)
Northeast	9.11 (5.7,18.6)	1.27 (0.9,1.9)	4.24 (3.0,6.0)	11.19 (8.3,15.1)	26.14 (14.5,47.2)	40.10 (18.1,88.8)	52.83 (20.5,136.1)	97.94 (19.0,503.8)
South	7.18 (5.2,11.1)	1.26 (0.7,2.1)	3.86 (2.4,6.3)	9.54 (6.4,14.1)	18.67 (13.0,26.9)	26.86 (18.8,38.4)	34.46 (22.9,51.9)	50.89 (33.4,77.5)
West	8.27 (5.3,18.2)	1.60 (0.6,4.2)	5.08 (2.0,13.2)	13.04 (5.7,29.6)	25.29 (12.9,49.6)	36.35 (19.3,68.6)	43.62 (25.9,73.5)	56.70 (34.5,93.1)
<b>Coastal Status</b>								
Noncoastal	6.70 (4.5,13.1)	1.15 (0.6,2.2)	3.69 (1.9,7.3)	9.34 (5.7,15.3)	18.88 (11.6,30.7)	27.43 (16.9,44.5)	35.88 (20.2,63.8)	54.33 (29.1,101.3)
Coastal	8.40 (6.6,11.7)	1.33 (0.8,2.3)	4.14 (2.7,6.4)	10.97 (7.9,15.3)	23.20 (17.0,31.7)	34.09 (25.0,46.5)	42.68 (31.3,58.2)	61.00 (44.9,82.8)
<b>Coastal/Inland Region</b>								
Pacific	8.02 (5.9,13.6)	1.08 (0.5,2.3)	3.57 (2.0,6.4)	11.07 (5.5,22.4)	25.25 (14.2,44.8)	39.68 (21.5,73.1)	45.44 (28.4,72.8)	63.40 (36.3,110.9)
Atlantic	8.42 (5.6,11.5)	1.48 (0.9,2.4)	4.47 (2.9,6.9)	10.36 (6.6,16.3)	20.15 (14.1,28.7)	28.71 (20.5,40.2)	34.54 (24.5,48.8)	47.62 (33.2,68.2)
Gulf of Mexico	10.19 (4.0,37.7)	1.99 (0.5,8.2)	6.18 (1.5,25.3)	15.86 (4.2,59.8)	30.52 (10.4,89.6)	44.50 (16.7,118.8)	55.12 (23.0,131.9)	88.07 (29.5,262.8)
Great Lakes	7.74 (3.5,13.1)	1.01 (0.5,2.0)	2.93 (1.8,4.8)	7.82 (4.0,15.4)	16.90 (6.7,42.6)	27.27 (12.8,58.1)	33.61 (15.3,73.8)	51.27 (23.5,111.7)
Inland Northeast	9.51 (5.1,24.4)	1.06 (0.5,2.2)	3.85 (2.3,6.5)	10.05 (6.2,16.2)	27.09 (13.2,55.7)	50.62 (13.0,197.4)	71.06 (13.2,381.8)	123.84 (12.9,1190.3)
Inland Midwest	4.52 (3.0,9.7)	0.86 (0.3,2.2)	2.53 (1.1,5.9)	7.17 (3.1,16.4)	13.19 (8.0,21.8)	18.98 (11.8,30.6)	24.27 (14.4,40.9)	37.96 (20.2,71.5)
Inland South	6.08 (4.2,9.6)	1.08 (0.6,1.8)	3.24 (2.0,5.2)	8.33 (5.3,13.1)	16.23 (10.5,25.2)	23.40 (14.8,36.9)	28.30 (18.3,43.7)	38.83 (26.2,57.6)
Inland West	8.46 (4.1,26.7)	2.07 (0.6,7.2)	6.61 (1.6,27.7)	14.31 (5.1,40.0)	25.47 (10.6,61.3)	33.66 (15.1,75.0)	41.02 (18.5,90.9)	52.07 (24.9,108.7)

Table C-28. Trophic level 2 fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	3.83 (2.7,5.4)	0.52 (0.3,0.9)	1.71 (1.1,2.6)	4.54 (3.2,6.5)	9.85 (7.0,13.8)	14.70 (10.1,21.4)	18.63 (12.2,28.5)	28.56 (17.2,47.4)
<b>Gender</b>								
Female	3.28 (2.4,4.5)	0.46 (0.2,0.9)	1.49 (0.9,2.4)	3.94 (2.7,5.7)	8.35 (6.0,11.7)	12.50 (8.9,17.5)	15.72 (10.9,22.6)	23.65 (15.0,37.2)
Male	4.50 (3.0,6.7)	0.62 (0.4,1.1)	2.02 (1.3,3.1)	5.34 (3.5,8.1)	11.70 (7.9,17.4)	17.26 (11.0,27.2)	22.23 (14.2,34.8)	33.27 (19.2,57.5)
<b>Age</b>								
1 to <3 yrs	0.96 (0.5,1.9)	0.10 (0.0,0.4)	0.29 (0.1,0.8)	0.88 (0.4,2.1)	2.26 (1.1,4.5)	3.95 (2.0,7.9)	5.87 (2.6,13.1)	10.97 (4.9,24.8)
3 to <6 yrs	1.52 (0.9,2.6)	0.21 (0.1,0.7)	0.64 (0.2,1.7)	1.72 (0.8,3.6)	3.76 (2.2,6.5)	5.59 (3.5,8.9)	7.55 (4.8,12.0)	13.19 (7.7,22.5)
6 to <11 yrs	1.40 (0.7,2.7)	0.17 (0.0,0.6)	0.53 (0.2,1.7)	1.50 (0.6,3.6)	3.52 (1.7,7.2)	5.50 (3.0,10.0)	7.29 (4.0,13.4)	12.80 (6.2,26.4)
11 to <16 yrs	1.83 (0.5,7.4)	0.14 (0.1,0.3)	0.56 (0.2,1.3)	1.83 (0.7,4.9)	4.55 (1.2,17.2)	7.48 (1.4,38.8)	10.01 (1.5,67.6)	17.62 (2.3,135.5)
16 to <18 yrs	1.90 (1.1,3.3)	0.26 (0.1,0.6)	0.80 (0.4,1.7)	2.12 (1.1,4.1)	4.45 (2.2,9.0)	7.40 (4.0,13.6)	9.65 (5.2,17.9)	17.12 (9.3,31.6)
18 to <21 yrs	3.25 (1.5,6.9)	0.35 (0.1,1.0)	1.21 (0.5,3.1)	3.47 (1.6,7.3)	8.26 (4.0,16.9)	14.10 (5.8,34.3)	18.30 (7.7,43.4)	28.18 (12.3,64.7)
21 to <35 yrs	4.11 (3.0,5.7)	0.74 (0.4,1.5)	2.11 (1.3,3.5)	5.06 (3.5,7.3)	10.29 (7.3,14.5)	14.36 (10.0,20.7)	17.93 (11.9,27.1)	27.79 (17.8,43.4)
35 to <50 yrs	5.19 (3.5,7.8)	0.99 (0.5,1.9)	2.65 (1.6,4.4)	6.11 (4.0,9.2)	12.58 (7.9,20.0)	18.43 (10.8,31.6)	23.72 (13.6,41.5)	40.70 (24.5,67.7)
50 to <65 yrs	4.97 (3.1,8.1)	1.18 (0.7,2.1)	2.95 (1.8,4.9)	6.49 (4.1,10.3)	12.15 (7.7,19.3)	16.60 (9.7,28.4)	20.51 (11.9,35.4)	28.99 (15.4,54.7)
65+ yrs	4.02 (2.7,5.9)	0.58 (0.2,1.3)	1.72 (0.9,3.3)	4.76 (3.0,7.4)	10.73 (7.5,15.3)	16.36 (11.4,23.5)	20.25 (13.9,29.6)	28.91 (19.0,43.9)
<b>Income</b>								
<\$20,000	3.02 (2.0,4.5)	0.37 (0.2,0.7)	1.25 (0.8,2.0)	3.41 (2.2,5.3)	7.57 (4.9,11.6)	11.73 (7.6,18.1)	15.03 (9.2,24.5)	24.41 (15.0,39.7)
>\$20,000	3.95 (2.8,5.6)	0.56 (0.3,1.0)	1.79 (1.2,2.8)	4.73 (3.3,6.9)	10.13 (7.0,14.6)	15.09 (10.2,22.4)	19.03 (12.2,29.7)	29.26 (17.6,48.7)
Income unknown	4.76 (2.6,8.7)	0.68 (0.2,2.9)	2.32 (0.7,7.3)	6.18 (2.7,14.0)	12.63 (6.6,24.1)	17.52 (10.4,29.5)	21.20 (12.1,37.2)	28.07 (13.1,60.1)
<b>Income, finer detail</b>								
<\$20,000	3.02 (2.0,4.5)	0.37 (0.2,0.7)	1.25 (0.8,2.0)	3.41 (2.2,5.3)	7.57 (4.9,11.6)	11.73 (7.6,18.1)	15.03 (9.2,24.5)	24.41 (15.0,39.7)
\$20k-\$45k	3.65 (2.6,5.2)	0.50 (0.2,1.0)	1.60 (0.9,2.8)	4.30 (2.8,6.6)	9.32 (6.5,13.4)	14.12 (10.0,20.0)	18.17 (13.0,25.4)	27.59 (18.9,40.2)
\$45k-\$75k	3.80 (2.5,5.8)	0.52 (0.3,1.0)	1.71 (1.0,2.9)	4.56 (2.9,7.2)	9.86 (6.4,15.2)	14.33 (9.1,22.6)	17.83 (10.8,29.5)	27.74 (16.4,47.0)
\$75k+	4.31 (2.6,7.1)	0.64 (0.4,1.1)	1.99 (1.2,3.2)	5.16 (3.1,8.6)	11.15 (6.8,18.2)	16.27 (9.3,28.6)	20.64 (11.3,37.7)	31.81 (17.1,59.1)
>\$20,000	4.04 (2.1,7.8)	0.70 (0.3,1.6)	2.14 (1.0,4.8)	4.96 (2.5,9.7)	9.61 (4.9,19.0)	14.64 (7.3,29.4)	19.29 (9.5,39.2)	29.75 (14.2,62.2)
Inc Ref/DK	5.50 (3.1,9.8)	0.88 (0.3,2.9)	2.90 (1.1,7.6)	7.54 (3.3,17.0)	14.01 (7.9,25.0)	19.21 (11.1,33.4)	22.15 (11.0,44.8)	28.50 (10.2,79.7)
Inc missing	3.33 (0.9,13.1)	0.44 (0.0,3.9)	1.42 (0.2,8.5)	4.41 (0.8,24.4)	8.10 (2.3,28.4)	12.64 (3.6,44.5)	16.51 (4.4,62.4)	23.76 (8.0,70.3)
<b>Race/Ethnicity</b>								
Mexican American	4.52 (2.9,7.0)	0.59 (0.3,1.1)	2.01 (1.2,3.3)	5.42 (3.6,8.2)	11.56 (7.3,18.2)	17.60 (11.0,28.3)	22.21 (13.0,37.8)	34.15 (18.4,63.4)
Other Hispanic	4.84 (3.1,7.6)	0.40 (0.2,0.8)	1.62 (1.0,2.6)	5.18 (3.3,8.1)	13.29 (7.8,22.7)	21.22 (11.9,37.7)	27.23 (15.7,47.4)	41.98 (24.2,72.9)
White	3.43 (2.3,5.2)	0.49 (0.3,0.9)	1.55 (1.0,2.5)	4.08 (2.7,6.2)	8.78 (5.7,13.4)	13.35 (8.6,20.7)	16.69 (9.9,28.1)	24.94 (12.9,48.1)
Black	3.62 (2.4,5.4)	0.60 (0.4,1.0)	1.87 (1.2,2.8)	4.62 (3.2,6.7)	9.24 (6.3,13.6)	13.15 (8.5,20.4)	15.65 (8.6,28.5)	22.77 (11.1,46.8)
Other race	6.70 (3.3,13.4)	0.96 (0.4,2.6)	3.21 (1.2,8.3)	8.32 (3.5,20.0)	16.34 (8.6,31.1)	24.94 (12.7,49.0)	32.00 (17.0,60.1)	52.97 (25.2,111.5)

Table C-28. Trophic level 2 fish usual fish consumption rate estimates, all ages (continued)

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.04 (1.0,4.0)	0.29 (0.1,0.6)	0.91 (0.5,1.6)	2.31 (1.2,4.4)	4.82 (2.3,10.3)	7.34 (3.1,17.1)	9.43 (3.7,24.3)	16.92 (6.9,41.5)
Northeast	5.70 (3.9,8.3)	0.73 (0.4,1.3)	2.69 (1.8,4.1)	7.11 (4.9,10.3)	14.55 (9.9,21.5)	21.20 (13.8,32.7)	26.14 (15.6,43.8)	42.03 (25.5,69.2)
South	4.24 (2.9,6.2)	0.71 (0.3,1.7)	2.20 (1.1,4.2)	5.27 (3.4,8.1)	10.54 (7.2,15.4)	15.25 (10.3,22.6)	18.90 (12.2,29.2)	28.16 (17.1,46.4)
West	3.91 (2.6,6.0)	0.58 (0.3,1.1)	1.81 (1.1,3.0)	4.76 (3.1,7.4)	10.30 (6.6,16.1)	14.80 (9.5,23.1)	18.72 (11.8,29.7)	27.76 (17.2,44.7)
<b>Coastal Status</b>								
Noncoastal	3.26 (2.3,4.7)	0.44 (0.2,0.8)	1.39 (0.9,2.1)	3.67 (2.5,5.3)	8.07 (5.5,11.8)	12.67 (8.5,18.8)	16.46 (10.6,25.5)	26.56 (16.1,43.9)
Coastal	4.74 (3.1,7.4)	0.73 (0.4,1.4)	2.40 (1.4,4.1)	6.06 (3.8,9.6)	12.16 (7.8,18.9)	17.07 (10.2,28.6)	21.19 (12.2,36.9)	31.20 (17.0,57.2)
<b>Coastal/Inland Region</b>								
Pacific	4.64 (2.9,7.4)	0.77 (0.3,1.8)	2.47 (1.2,4.9)	6.14 (3.5,10.8)	11.96 (7.3,19.6)	16.40 (10.4,25.9)	20.16 (12.4,32.7)	28.99 (16.7,50.3)
Atlantic	4.54 (1.9,10.7)	0.79 (0.4,1.8)	2.54 (1.2,5.4)	5.97 (2.6,13.6)	11.57 (4.9,27.1)	16.08 (6.4,40.7)	19.06 (6.7,54.2)	27.64 (9.9,76.8)
Gulf of Mexico	7.24 (4.2,12.6)	1.34 (0.3,5.5)	4.03 (1.4,11.3)	9.66 (4.6,20.3)	17.27 (10.6,28.1)	24.11 (15.4,37.7)	29.05 (18.7,45.2)	47.61 (29.4,77.2)
Great Lakes	3.04 (1.6,5.9)	0.34 (0.2,0.8)	1.08 (0.4,2.7)	3.01 (1.3,6.8)	6.81 (3.0,15.3)	11.46 (5.4,24.3)	16.37 (7.7,34.7)	36.74 (15.1,89.4)
Inland Northeast	6.31 (3.7,10.6)	0.66 (0.4,1.2)	2.65 (1.7,4.2)	7.84 (4.5,13.8)	16.18 (9.1,28.7)	24.63 (13.2,46.1)	31.46 (16.4,60.3)	47.28 (24.1,92.7)
Inland Midwest	1.76 (0.9,3.4)	0.28 (0.1,0.7)	0.87 (0.5,1.7)	2.17 (1.2,4.0)	4.34 (2.1,8.8)	6.47 (3.0,13.8)	8.10 (3.5,18.6)	13.04 (5.6,30.2)
Inland South	3.41 (2.2,5.2)	0.60 (0.2,1.8)	1.86 (0.8,4.4)	4.33 (2.6,7.3)	8.26 (5.8,11.8)	12.07 (8.5,17.1)	15.09 (10.5,21.6)	21.40 (13.3,34.5)
Inland West	3.18 (1.9,5.4)	0.46 (0.2,0.9)	1.39 (0.8,2.5)	3.50 (1.9,6.3)	8.12 (4.8,13.8)	12.70 (7.5,21.6)	16.20 (9.1,28.8)	26.40 (15.4,45.3)

Table C-29. Trophic level 2 fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	4.65 (3.3,6.5)	0.87 (0.5,1.4)	2.40 (1.6,3.6)	5.69 (4.0,8.0)	11.56 (8.3,16.2)	16.51 (11.1,24.5)	20.87 (13.8,31.6)	31.79 (20.1,50.4)
<b>Gender</b>								
Female	3.93 (2.9,5.4)	0.74 (0.4,1.3)	2.07 (1.3,3.2)	4.84 (3.4,6.9)	9.64 (6.9,13.4)	13.95 (9.9,19.6)	17.21 (11.8,25.1)	25.63 (16.2,40.5)
Male	5.56 (3.7,8.3)	1.07 (0.6,1.8)	2.95 (1.9,4.5)	6.96 (4.7,10.3)	13.81 (9.2,20.7)	19.84 (12.7,30.9)	24.76 (15.5,39.5)	36.83 (21.9,61.9)
<b>Age</b>								
21 to <35 yrs	4.11 (3.0,5.7)	0.74 (0.4,1.5)	2.11 (1.3,3.5)	5.06 (3.5,7.3)	10.29 (7.3,14.5)	14.36 (10.0,20.7)	17.93 (11.9,27.1)	27.79 (17.8,43.4)
35 to <50 yrs	5.19 (3.5,7.8)	0.99 (0.5,1.9)	2.65 (1.6,4.4)	6.11 (4.0,9.2)	12.58 (7.9,20.0)	18.43 (10.8,31.6)	23.72 (13.6,41.5)	40.70 (24.5,67.7)
50 to <65 yrs	4.97 (3.1,8.1)	1.18 (0.7,2.1)	2.95 (1.8,4.9)	6.49 (4.1,10.3)	12.15 (7.7,19.3)	16.60 (9.7,28.4)	20.51 (11.9,35.4)	28.99 (15.4,54.7)
65+ yrs	4.02 (2.7,5.9)	0.58 (0.2,1.3)	1.72 (0.9,3.3)	4.76 (3.0,7.4)	10.73 (7.5,15.3)	16.36 (11.4,23.5)	20.25 (13.9,29.6)	28.91 (19.0,43.9)
<b>WCA (13-49 years)</b>	3.56 (2.6,4.9)	0.56 (0.3,1.2)	1.69 (1.0,2.9)	4.28 (2.9,6.4)	8.87 (6.3,12.4)	13.18 (9.3,18.7)	16.53 (11.2,24.5)	25.53 (15.9,41.1)
<b>Income</b>								
<\$20,000	3.66 (2.4,5.5)	0.58 (0.3,1.1)	1.75 (1.1,2.9)	4.21 (2.6,6.9)	8.89 (5.7,14.0)	13.35 (8.3,21.4)	16.96 (10.1,28.5)	28.02 (18.4,42.6)
>\$20,000	4.79 (3.4,6.8)	0.93 (0.6,1.5)	2.52 (1.7,3.8)	5.88 (4.1,8.4)	11.89 (8.4,16.9)	16.92 (11.2,25.5)	21.33 (13.9,32.6)	32.50 (20.3,51.9)
Income unknown	5.52 (3.1,9.8)	1.11 (0.3,4.1)	3.37 (1.1,10.8)	7.25 (3.6,14.4)	13.88 (7.7,25.2)	18.62 (10.7,32.3)	21.86 (11.8,40.7)	29.54 (13.4,64.9)
<b>Income, finer detail</b>								
<\$20,000	3.66 (2.4,5.5)	0.58 (0.3,1.1)	1.75 (1.1,2.9)	4.21 (2.6,6.9)	8.89 (5.7,14.0)	13.35 (8.3,21.4)	16.96 (10.1,28.5)	28.02 (18.4,42.6)
\$20k-\$45k	4.41 (3.1,6.2)	0.79 (0.4,1.4)	2.22 (1.3,3.7)	5.32 (3.6,7.9)	10.95 (7.7,15.6)	15.94 (11.4,22.3)	20.52 (14.6,28.9)	30.26 (20.5,44.7)
\$45k-\$75k	4.61 (3.0,7.0)	0.86 (0.5,1.6)	2.42 (1.4,4.1)	5.73 (3.6,9.1)	11.21 (7.3,17.3)	16.05 (10.2,25.4)	19.88 (12.2,32.5)	30.88 (18.7,51.0)
\$75k+	5.25 (3.2,8.6)	1.10 (0.6,1.9)	2.82 (1.7,4.6)	6.53 (4.0,10.6)	12.94 (8.0,21.0)	18.22 (10.3,32.3)	22.88 (12.6,41.5)	35.24 (20.1,61.8)
>\$20,000	4.66 (2.4,9.0)	0.93 (0.4,2.1)	2.58 (1.3,5.3)	5.59 (2.8,11.0)	11.34 (5.7,22.7)	17.15 (8.5,34.7)	21.99 (10.1,48.0)	31.47 (14.9,66.6)
Inc Ref/DK	6.16 (3.5,10.8)	1.34 (0.5,3.7)	3.83 (1.5,9.8)	8.74 (4.0,19.1)	15.37 (8.5,27.9)	20.83 (11.6,37.5)	22.15 (9.9,49.4)	28.50 (9.4,86.6)
Inc missing	4.07 (1.0,16.3)	0.75 (0.1,7.3)	2.32 (0.3,16.6)	5.42 (1.1,27.5)	8.57 (2.8,25.8)	14.07 (3.9,50.7)	17.52 (5.1,60.3)	31.15 (6.4,151.5)
<b>Race/Ethnicity</b>								
Mexican American	6.25 (4.1,9.5)	1.32 (0.7,2.4)	3.53 (2.2,5.6)	7.78 (5.1,11.9)	15.01 (9.6,23.5)	21.32 (12.9,35.3)	26.65 (15.6,45.4)	40.14 (22.3,72.2)
Other Hispanic	6.75 (4.0,11.3)	1.04 (0.5,2.4)	3.16 (1.7,5.7)	7.78 (4.7,12.9)	17.45 (9.8,31.0)	25.76 (14.5,45.8)	33.70 (18.7,60.8)	47.87 (26.0,88.2)
White	4.06 (2.7,6.2)	0.77 (0.5,1.3)	2.10 (1.4,3.2)	4.96 (3.3,7.5)	10.20 (6.7,15.4)	14.87 (9.5,23.3)	18.19 (10.6,31.2)	26.70 (13.9,51.4)
Black	4.56 (3.2,6.5)	1.01 (0.6,1.7)	2.70 (1.8,4.1)	6.07 (4.3,8.5)	10.94 (7.6,15.7)	14.75 (9.2,23.7)	18.20 (11.2,29.5)	26.03 (14.8,45.7)
Other race	7.79 (4.1,14.8)	1.59 (0.6,4.2)	4.21 (1.8,9.7)	9.68 (4.5,20.6)	17.95 (10.2,31.5)	27.23 (14.8,50.0)	36.64 (18.2,73.7)	57.07 (26.7,122.0)

Table C-29. Trophic level 2 fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.29 (1.2,4.3)	0.46 (0.2,0.9)	1.18 (0.6,2.2)	2.67 (1.4,5.2)	5.24 (2.5,11.1)	7.69 (3.5,17.1)	9.80 (4.3,22.3)	16.74 (8.2,34.1)
Northeast	7.16 (4.9,10.5)	1.55 (0.9,2.7)	4.00 (2.6,6.1)	9.29 (6.4,13.5)	16.85 (10.8,26.3)	23.80 (14.4,39.3)	30.18 (18.3,49.8)	45.42 (26.1,79.1)
South	5.22 (3.6,7.6)	1.24 (0.5,2.9)	3.11 (1.7,5.7)	6.66 (4.4,10.1)	12.32 (8.4,18.0)	17.42 (11.7,25.9)	21.29 (13.7,33.1)	30.46 (17.6,52.9)
West	4.64 (3.1,7.0)	0.92 (0.5,1.6)	2.52 (1.5,4.1)	5.98 (3.9,9.3)	11.63 (7.6,17.9)	16.00 (10.1,25.3)	20.16 (12.8,31.9)	29.52 (18.4,47.5)
<b>Coastal Status</b>								
Noncoastal	4.00 (2.7,5.8)	0.71 (0.4,1.2)	1.94 (1.3,2.9)	4.60 (3.1,6.8)	9.75 (6.7,14.3)	14.62 (9.4,22.7)	18.88 (11.9,30.0)	30.44 (18.3,50.5)
Coastal	5.66 (3.7,8.6)	1.28 (0.7,2.4)	3.32 (2.0,5.5)	7.42 (4.8,11.5)	13.66 (8.8,21.2)	18.65 (11.2,31.0)	23.08 (13.8,38.5)	33.89 (20.4,56.3)
<b>Coastal/Inland Region</b>								
Pacific	5.31 (3.3,8.5)	1.34 (0.6,3.2)	3.27 (1.7,6.4)	7.20 (4.1,12.6)	12.73 (8.0,20.2)	17.05 (10.5,27.7)	20.42 (12.1,34.4)	29.10 (16.4,51.8)
Atlantic	5.53 (2.5,12.3)	1.49 (0.7,3.1)	3.55 (1.7,7.2)	7.31 (3.3,16.0)	13.19 (5.8,30.0)	17.58 (7.0,44.3)	21.29 (8.2,55.3)	28.51 (9.6,84.6)
Gulf of Mexico	9.32 (5.5,15.7)	2.72 (0.8,9.1)	6.37 (2.5,16.2)	12.19 (6.5,22.8)	20.53 (12.9,32.6)	27.79 (18.0,42.9)	35.13 (22.5,55.0)	53.49 (31.8,89.9)
Great Lakes	3.24 (1.8,5.7)	0.51 (0.2,1.5)	1.35 (0.5,3.7)	3.39 (1.6,7.3)	6.92 (3.3,14.5)	11.08 (5.9,20.7)	15.76 (8.6,28.7)	40.29 (8.8,184.6)
Inland Northeast	8.10 (4.5,14.7)	1.46 (0.8,2.8)	4.22 (2.3,7.8)	10.42 (5.3,20.6)	19.99 (10.4,38.6)	28.50 (14.8,54.8)	36.43 (18.1,73.5)	51.65 (25.8,103.5)
Inland Midwest	2.05 (1.0,4.0)	0.45 (0.2,0.8)	1.14 (0.6,2.1)	2.56 (1.3,4.9)	4.83 (2.3,10.1)	6.97 (3.1,15.6)	8.58 (3.6,20.4)	13.55 (5.7,32.2)
Inland South	4.14 (2.8,6.2)	1.00 (0.4,2.6)	2.52 (1.2,5.2)	5.25 (3.3,8.3)	9.71 (6.8,13.9)	13.75 (9.6,19.7)	17.00 (11.7,24.6)	24.23 (15.4,38.1)
Inland West	3.91 (2.4,6.4)	0.70 (0.4,1.4)	1.83 (1.0,3.4)	4.42 (2.5,7.7)	10.14 (6.2,16.6)	14.59 (8.5,25.1)	18.88 (10.9,32.7)	29.52 (17.6,49.5)

Table C-30. Trophic level 2 fish usual fish consumption rate estimates, youth <21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	1.81 (1.1,2.9)	0.19 (0.1,0.5)	0.61 (0.3,1.2)	1.84 (1.1,3.1)	4.48 (2.9,6.9)	7.44 (4.6,11.9)	10.26 (6.1,17.1)	17.91 (9.1,35.3)
<b>Gender</b>								
Female	1.50 (1.0,2.3)	0.15 (0.1,0.4)	0.50 (0.2,1.0)	1.54 (0.9,2.7)	3.89 (2.4,6.3)	6.28 (4.1,9.7)	8.32 (5.2,13.3)	14.15 (7.7,26.1)
Male	2.13 (1.3,3.5)	0.23 (0.1,0.6)	0.74 (0.4,1.4)	2.16 (1.3,3.5)	5.14 (3.1,8.4)	8.63 (5.0,15.0)	12.43 (7.1,21.8)	20.51 (9.1,46.2)
<b>Age</b>								
1 to <3 yrs	0.96 (0.5,1.9)	0.10 (0.0,0.4)	0.29 (0.1,0.8)	0.88 (0.4,2.1)	2.26 (1.1,4.5)	3.95 (2.0,7.9)	5.87 (2.6,13.1)	10.97 (4.9,24.8)
3 to <6 yrs	1.52 (0.9,2.6)	0.21 (0.1,0.7)	0.64 (0.2,1.7)	1.72 (0.8,3.6)	3.76 (2.2,6.5)	5.59 (3.5,8.9)	7.55 (4.8,12.0)	13.19 (7.7,22.5)
6 to <11 yrs	1.40 (0.7,2.7)	0.17 (0.0,0.6)	0.53 (0.2,1.7)	1.50 (0.6,3.6)	3.52 (1.7,7.2)	5.50 (3.0,10.0)	7.29 (4.0,13.4)	12.80 (6.2,26.4)
11 to <16 yrs	1.83 (0.5,7.4)	0.14 (0.1,0.3)	0.56 (0.2,1.3)	1.83 (0.7,4.9)	4.55 (1.2,17.2)	7.48 (1.4,38.8)	10.01 (1.5,67.6)	17.62 (2.3,135.5)
16 to <18 yrs	1.90 (1.1,3.3)	0.26 (0.1,0.6)	0.80 (0.4,1.7)	2.12 (1.1,4.1)	4.45 (2.2,9.0)	7.40 (4.0,13.6)	9.65 (5.2,17.9)	17.12 (9.3,31.6)
18 to <21 yrs	3.25 (1.5,6.9)	0.35 (0.1,1.0)	1.21 (0.5,3.1)	3.47 (1.6,7.3)	8.26 (4.0,16.9)	14.10 (5.8,34.3)	18.30 (7.7,43.4)	28.18 (12.3,64.7)
<b>Income</b>								
<\$20,000	1.68 (1.1,2.6)	0.19 (0.1,0.4)	0.58 (0.3,1.0)	1.72 (1.1,2.6)	4.11 (2.7,6.3)	6.99 (4.5,10.8)	9.36 (5.8,15.1)	16.84 (10.1,28.1)
>\$20,000	1.79 (1.1,3.0)	0.18 (0.1,0.5)	0.61 (0.3,1.3)	1.83 (1.1,3.2)	4.42 (2.8,7.1)	7.27 (4.3,12.4)	9.87 (5.3,18.3)	17.77 (8.3,38.1)
Income unknown	3.03 (1.1,8.3)	0.23 (0.1,0.8)	0.81 (0.2,2.9)	3.11 (0.7,13.5)	8.93 (2.0,40.1)	13.59 (4.4,42.2)	16.69 (6.6,42.0)	27.64 (11.7,65.1)
<b>Income, finer detail</b>								
<\$20,000	1.68 (1.1,2.6)	0.19 (0.1,0.4)	0.58 (0.3,1.0)	1.72 (1.1,2.6)	4.11 (2.7,6.3)	6.99 (4.5,10.8)	9.36 (5.8,15.1)	16.84 (10.1,28.1)
\$20k-\$45k	1.74 (1.1,2.8)	0.20 (0.1,0.6)	0.61 (0.3,1.4)	1.85 (0.9,3.8)	4.38 (2.6,7.4)	7.23 (4.5,11.7)	9.40 (6.1,14.5)	15.80 (10.0,25.1)
\$45k-\$75k	1.54 (0.8,3.0)	0.16 (0.1,0.4)	0.56 (0.2,1.3)	1.58 (0.9,2.9)	3.67 (1.8,7.6)	5.87 (2.4,14.3)	7.95 (3.1,20.6)	14.64 (5.8,37.0)
\$75k+	1.97 (1.0,3.8)	0.19 (0.1,0.5)	0.62 (0.3,1.2)	1.93 (1.1,3.4)	4.80 (2.6,8.7)	8.14 (3.9,16.8)	12.06 (5.6,25.8)	21.22 (8.3,54.4)
>\$20,000	2.05 (1.0,4.3)	0.31 (0.1,1.3)	0.90 (0.4,2.2)	2.62 (0.9,7.4)	5.61 (2.0,15.4)	8.05 (3.3,19.7)	8.96 (3.7,21.7)	14.03 (5.2,37.9)
Inc Ref/DK	3.71 (1.3,10.8)	0.28 (0.1,0.9)	1.11 (0.3,4.5)	3.92 (0.9,17.5)	12.16 (2.0,72.6)	14.10 (5.4,36.8)	17.33 (6.5,46.1)	28.07 (9.4,83.7)
Inc missing	2.08 (0.4,10.2)	0.16 (0.0,0.9)	0.69 (0.1,6.8)	2.16 (0.3,16.6)	6.48 (0.7,62.2)	8.92 (1.7,46.9)	12.27 (2.5,61.2)	18.59 (4.6,75.0)
<b>Race/Ethnicity</b>								
Mexican American	1.87 (1.0,3.5)	0.24 (0.1,0.5)	0.72 (0.4,1.3)	2.04 (1.2,3.4)	4.67 (2.7,8.1)	7.33 (3.8,14.2)	9.51 (4.1,21.8)	16.62 (6.0,46.3)
Other Hispanic	1.39 (0.6,3.3)	0.13 (0.0,0.4)	0.45 (0.2,1.2)	1.17 (0.3,4.3)	3.26 (1.1,9.7)	6.40 (2.9,14.0)	9.50 (4.9,18.4)	15.17 (7.5,30.7)
White	1.55 (0.8,2.9)	0.15 (0.0,0.5)	0.51 (0.2,1.4)	1.58 (0.7,3.4)	3.88 (2.1,7.2)	6.52 (3.5,12.0)	8.61 (4.3,17.3)	15.25 (5.8,40.2)
Black	1.74 (0.7,4.0)	0.27 (0.2,0.5)	0.78 (0.5,1.3)	2.09 (1.3,3.4)	4.34 (2.1,9.1)	6.59 (2.5,17.1)	8.28 (2.5,27.1)	13.21 (2.8,61.8)
Other race	4.38 (1.5,12.6)	0.33 (0.1,0.8)	1.39 (0.5,4.0)	4.55 (1.5,13.7)	12.77 (3.1,52.8)	19.30 (5.8,64.0)	25.12 (7.7,82.2)	36.90 (15.2,89.8)

Table C-30. Trophic level 2 fish usual fish consumption rate estimates, youth <21 years (continued)

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.41 (0.4,4.4)	0.10 (0.0,0.3)	0.34 (0.1,0.9)	1.18 (0.5,2.7)	3.33 (1.2,9.0)	5.94 (1.6,21.9)	8.53 (1.9,38.1)	18.00 (4.0,81.5)
Northeast	1.87 (0.9,4.0)	0.20 (0.1,0.5)	0.62 (0.3,1.4)	1.88 (0.9,4.0)	4.80 (2.4,9.8)	7.98 (3.9,16.3)	11.74 (6.0,23.1)	16.30 (5.3,50.1)
South	1.74 (1.1,2.9)	0.25 (0.1,0.7)	0.73 (0.3,1.6)	2.04 (1.0,4.0)	4.40 (2.6,7.4)	6.76 (4.2,10.9)	8.49 (5.0,14.4)	14.47 (8.3,25.2)
West	2.24 (1.0,4.8)	0.22 (0.1,0.7)	0.75 (0.3,2.0)	2.23 (1.0,5.1)	5.44 (2.7,11.1)	9.55 (4.2,21.5)	14.26 (5.3,38.4)	22.52 (9.6,52.9)
<b>Coastal Status</b>								
Noncoastal	1.42 (0.9,2.3)	0.16 (0.1,0.4)	0.52 (0.2,1.2)	1.58 (0.8,3.0)	3.58 (2.2,5.8)	5.78 (3.6,9.2)	7.69 (4.8,12.3)	12.86 (7.8,21.3)
Coastal	2.43 (1.3,4.7)	0.24 (0.1,0.5)	0.77 (0.4,1.4)	2.39 (1.4,4.2)	6.07 (3.2,11.5)	10.32 (4.9,21.7)	14.64 (6.9,30.9)	24.18 (9.3,63.0)
<b>Coastal/Inland Region</b>								
Pacific	2.87 (1.0,7.9)	0.24 (0.1,0.7)	0.81 (0.3,2.1)	2.64 (1.1,6.4)	7.49 (2.7,20.9)	14.50 (3.7,57.4)	19.13 (5.1,71.2)	28.39 (9.0,89.4)
Atlantic	1.88 (0.6,6.1)	0.24 (0.1,0.5)	0.71 (0.3,1.7)	2.00 (0.8,5.1)	4.61 (1.4,15.6)	7.54 (2.0,29.1)	10.60 (2.8,40.2)	15.43 (2.7,87.0)
Gulf of Mexico	2.67 (1.1,6.6)	0.41 (0.1,1.9)	1.23 (0.3,5.2)	3.26 (0.9,11.3)	6.89 (2.6,18.6)	9.76 (4.6,20.7)	13.21 (6.6,26.3)	18.48 (10.2,33.5)
Great Lakes	2.62 (0.7,9.9)	0.15 (0.1,0.4)	0.52 (0.2,1.2)	1.94 (0.6,6.6)	6.53 (1.5,28.9)	11.70 (2.2,62.7)	18.31 (4.2,79.6)	29.49 (6.0,145.8)
Inland Northeast	1.55 (0.7,3.6)	0.16 (0.0,0.6)	0.50 (0.1,1.8)	1.51 (0.5,4.7)	4.27 (1.9,9.4)	6.61 (3.1,14.2)	9.36 (4.7,18.7)	13.18 (5.8,30.0)
Inland Midwest	1.02 (0.4,2.5)	0.09 (0.0,0.5)	0.30 (0.1,1.3)	1.02 (0.3,3.6)	2.57 (1.0,6.6)	4.30 (1.7,11.2)	5.94 (2.2,16.2)	11.00 (4.1,29.2)
Inland South	1.54 (0.8,3.2)	0.23 (0.1,0.9)	0.66 (0.2,2.0)	1.88 (0.7,5.3)	3.91 (1.9,8.0)	5.97 (3.1,11.6)	7.61 (4.2,13.6)	11.48 (6.7,19.5)
Inland West	1.72 (0.8,3.8)	0.21 (0.1,0.7)	0.71 (0.2,2.3)	1.96 (0.7,5.2)	4.08 (1.9,8.9)	6.86 (3.2,14.7)	9.44 (4.3,20.6)	15.51 (6.8,35.2)

Table C-31. Trophic level 3 fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	6.15 (4.7,8.0)	1.25 (0.7,2.1)	3.72 (2.5,5.6)	8.20 (6.2,10.9)	15.04 (11.6,19.4)	20.64 (15.9,26.8)	24.93 (19.2,32.4)	34.70 (25.6,47.1)
<b>Gender</b>								
Female	5.26 (4.0,6.9)	1.09 (0.6,1.8)	3.26 (2.1,5.0)	7.00 (5.2,9.5)	12.72 (9.7,16.7)	17.95 (13.7,23.5)	21.60 (16.4,28.4)	28.72 (20.4,40.4)
Male	7.22 (5.5,9.5)	1.50 (0.9,2.6)	4.47 (2.9,6.9)	9.78 (7.2,13.3)	17.38 (13.3,22.6)	23.55 (18.1,30.6)	28.52 (21.7,37.5)	39.96 (29.3,54.6)
<b>Age</b>								
1 to <3 yrs	1.80 (1.0,3.1)	0.22 (0.1,0.4)	0.69 (0.4,1.1)	1.78 (1.2,2.7)	3.89 (2.5,6.1)	6.48 (3.7,11.4)	9.58 (4.5,20.4)	22.70 (5.1,100.7)
3 to <6 yrs	2.18 (1.5,3.1)	0.35 (0.1,0.9)	1.08 (0.5,2.6)	2.85 (1.7,4.8)	5.58 (4.0,7.9)	7.82 (5.6,11.0)	10.11 (7.3,13.9)	14.13 (9.6,20.7)
6 to <11 yrs	3.44 (2.1,5.7)	0.48 (0.3,0.9)	1.42 (0.8,2.4)	4.24 (2.2,8.1)	8.76 (5.2,14.8)	13.37 (7.9,22.7)	17.56 (10.3,29.8)	27.25 (15.4,48.1)
11 to <16 yrs	2.88 (1.8,4.6)	0.49 (0.2,1.1)	1.35 (0.7,2.7)	3.53 (2.1,6.1)	7.58 (4.7,12.3)	10.81 (6.7,17.4)	13.57 (8.4,22.0)	19.50 (10.7,35.7)
16 to <18 yrs	2.90 (1.9,4.5)	0.31 (0.1,0.8)	0.92 (0.4,2.2)	2.71 (1.3,5.5)	6.90 (4.1,11.5)	12.64 (7.7,20.8)	18.57 (9.5,36.4)	29.57 (14.2,61.5)
18 to <21 yrs	4.78 (2.9,7.9)	0.75 (0.4,1.6)	2.38 (1.1,4.9)	6.11 (3.3,11.4)	12.25 (7.1,21.1)	17.30 (10.8,27.7)	21.62 (13.6,34.4)	31.85 (19.5,51.9)
21 to <35 yrs	7.04 (4.8,10.3)	1.83 (0.8,4.2)	4.43 (2.5,7.9)	9.11 (5.9,14.1)	16.46 (11.3,24.0)	23.04 (16.0,33.3)	27.79 (20.0,38.6)	39.30 (27.5,56.1)
35 to <50 yrs	6.88 (4.9,9.8)	2.12 (1.4,3.3)	4.78 (3.4,6.8)	8.99 (6.0,13.4)	15.83 (11.1,22.7)	20.81 (13.8,31.4)	25.07 (16.8,37.5)	34.07 (22.2,52.2)
50 to <65 yrs	9.31 (6.4,13.4)	3.37 (1.8,6.2)	7.01 (4.3,11.3)	12.62 (8.6,18.4)	20.10 (14.1,28.6)	25.43 (18.4,35.2)	29.52 (21.2,41.2)	39.79 (26.6,59.5)
65+ yrs	6.30 (4.5,8.8)	1.94 (1.1,3.4)	4.27 (2.8,6.4)	8.35 (6.0,11.7)	14.07 (9.5,20.8)	18.81 (12.1,29.2)	23.03 (15.3,34.7)	31.34 (19.5,50.3)
<b>Income</b>								
<\$20,000	5.81 (4.4,7.7)	1.03 (0.7,1.6)	3.13 (2.1,4.6)	7.59 (5.6,10.3)	14.78 (11.3,19.4)	20.66 (15.6,27.3)	25.03 (18.5,33.8)	34.75 (23.3,51.9)
>\$20,000	6.14 (4.7,8.1)	1.30 (0.7,2.3)	3.79 (2.5,5.8)	8.20 (6.1,11.0)	14.85 (11.4,19.4)	20.35 (15.5,26.6)	24.42 (18.6,32.1)	34.07 (25.0,46.5)
Income unknown	8.13 (4.0,16.5)	1.66 (0.5,5.9)	5.02 (1.7,14.4)	11.21 (4.9,25.4)	20.82 (9.8,44.0)	27.15 (15.0,49.1)	30.12 (20.0,45.4)	41.68 (27.2,63.8)
<b>Income, finer detail</b>								
<\$20,000	5.81 (4.4,7.7)	1.03 (0.7,1.6)	3.13 (2.1,4.6)	7.59 (5.6,10.3)	14.78 (11.3,19.4)	20.66 (15.6,27.3)	25.03 (18.5,33.8)	34.75 (23.3,51.9)
\$20k-\$45k	5.47 (4.1,7.4)	1.14 (0.6,2.1)	3.36 (2.0,5.6)	7.34 (5.2,10.4)	13.11 (9.9,17.3)	18.15 (13.6,24.3)	21.60 (15.9,29.3)	32.15 (23.0,45.0)
\$45k-\$75k	6.27 (4.6,8.6)	1.23 (0.7,2.1)	3.77 (2.3,6.1)	8.44 (5.9,12.1)	15.41 (11.3,21.1)	20.68 (15.5,27.5)	25.28 (18.8,34.1)	33.57 (23.6,47.7)
\$75k+	6.56 (4.9,8.7)	1.48 (0.8,2.6)	4.17 (2.9,6.0)	8.77 (6.4,12.0)	15.96 (11.9,21.4)	21.78 (16.2,29.2)	25.85 (19.1,34.9)	36.47 (26.0,51.1)
>\$20,000	6.54 (3.4,12.7)	1.80 (0.6,5.9)	4.49 (1.8,11.2)	8.96 (4.5,17.8)	14.21 (8.6,23.6)	19.49 (11.4,33.3)	23.63 (13.4,41.7)	32.19 (17.5,59.2)
Inc Ref/DK	8.04 (3.8,17.1)	1.65 (0.5,5.3)	5.07 (1.8,14.3)	11.96 (4.4,32.5)	20.82 (9.0,48.1)	25.66 (14.1,46.7)	28.72 (17.2,47.8)	35.74 (21.1,60.5)
Inc missing	8.29 (2.9,24.0)	1.71 (0.3,9.2)	4.85 (1.2,19.3)	10.28 (3.5,30.6)	21.68 (7.0,67.5)	29.02 (10.7,78.4)	36.93 (13.1,104.3)	45.08 (21.3,95.6)
<b>Race/Ethnicity</b>								
Mexican American	5.80 (4.1,8.3)	0.97 (0.6,1.6)	3.16 (2.0,5.0)	7.97 (5.4,11.8)	14.67 (10.3,20.9)	20.30 (14.1,29.2)	24.60 (17.1,35.4)	33.65 (22.5,50.3)
Other Hispanic	4.94 (3.4,7.1)	0.65 (0.4,1.2)	2.56 (1.7,3.9)	6.72 (4.5,9.9)	12.54 (8.4,18.8)	18.16 (12.1,27.3)	20.70 (13.2,32.4)	30.41 (19.7,47.0)
White	5.34 (4.1,7.0)	1.16 (0.6,2.1)	3.38 (2.2,5.2)	7.16 (5.3,9.6)	12.77 (9.6,17.0)	17.60 (13.3,23.3)	20.91 (15.3,28.6)	28.50 (19.5,41.7)
Black	7.39 (5.6,9.7)	2.01 (1.4,2.9)	5.27 (3.8,7.3)	10.31 (8.0,13.3)	16.78 (12.3,22.8)	21.83 (15.2,31.3)	25.54 (17.0,38.3)	34.11 (21.4,54.3)
Other race	13.57 (8.1,22.8)	3.43 (1.4,8.3)	10.11 (4.2,24.2)	20.40 (9.7,43.0)	30.79 (19.7,48.1)	38.49 (27.3,54.3)	43.53 (30.6,61.9)	55.83 (34.9,89.3)

Table C-31. Trophic level 3 fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.03 (2.8,5.9)	0.84 (0.4,1.7)	2.51 (1.4,4.6)	5.38 (3.5,8.2)	9.61 (6.7,13.8)	13.08 (9.2,18.7)	15.84 (11.0,22.8)	22.69 (15.1,34.1)
Northeast	6.90 (5.1,9.4)	1.25 (0.8,1.9)	4.25 (3.0,6.1)	9.60 (6.8,13.5)	17.46 (12.3,24.9)	22.95 (16.4,32.1)	26.87 (19.3,37.5)	36.18 (24.6,53.2)
South	6.91 (5.2,9.1)	1.60 (1.0,2.6)	4.57 (2.9,7.1)	9.40 (6.9,12.9)	16.49 (12.5,21.8)	21.87 (16.6,28.8)	25.97 (19.4,34.7)	35.70 (25.5,50.0)
West	6.77 (4.8,9.5)	1.36 (0.8,2.3)	4.01 (2.7,6.1)	8.87 (6.3,12.6)	16.73 (11.7,23.8)	23.08 (16.2,32.8)	27.82 (19.6,39.4)	38.83 (26.8,56.3)
<b>Coastal Status</b>								
Noncoastal	5.54 (3.9,7.9)	1.10 (0.6,2.0)	3.31 (2.0,5.5)	7.37 (5.1,10.7)	13.45 (9.7,18.7)	18.82 (13.4,26.5)	22.69 (16.2,31.9)	31.46 (22.0,45.0)
Coastal	7.12 (5.4,9.5)	1.57 (1.0,2.4)	4.49 (3.2,6.3)	9.50 (6.9,13.1)	17.18 (12.9,22.9)	23.45 (17.6,31.3)	27.95 (20.4,38.4)	38.27 (26.0,56.3)
<b>Coastal/Inland Region</b>								
Pacific	6.66 (4.5,9.8)	1.19 (0.7,2.1)	3.79 (2.3,6.2)	8.42 (5.3,13.5)	16.46 (11.3,24.0)	24.22 (16.8,35.0)	29.41 (20.3,42.5)	41.44 (26.2,65.6)
Atlantic	7.31 (4.5,11.8)	1.91 (1.2,3.1)	5.05 (3.2,8.0)	9.98 (6.0,16.7)	16.96 (10.2,28.1)	22.09 (12.8,38.2)	26.20 (15.1,45.5)	36.67 (22.6,59.4)
Gulf of Mexico	9.86 (6.6,14.8)	2.68 (0.9,8.0)	7.05 (3.2,15.4)	14.07 (8.5,23.2)	22.73 (15.8,32.8)	28.78 (19.8,41.9)	32.63 (20.3,52.5)	43.51 (23.8,79.6)
Great Lakes	4.88 (3.3,7.3)	1.06 (0.6,1.8)	2.97 (1.8,4.8)	6.50 (4.2,10.0)	11.55 (7.5,17.8)	16.23 (10.9,24.2)	19.84 (13.1,30.1)	27.92 (18.1,43.1)
Inland Northeast	6.31 (4.2,9.5)	0.89 (0.4,1.8)	3.34 (2.0,5.6)	8.75 (5.5,13.9)	16.85 (9.8,28.8)	22.19 (13.6,36.2)	26.36 (16.5,42.2)	36.09 (21.9,59.6)
Inland Midwest	3.79 (2.3,6.3)	0.79 (0.3,1.9)	2.40 (1.1,5.4)	5.07 (2.8,9.1)	9.03 (5.6,14.5)	12.31 (8.1,18.8)	14.69 (9.9,21.9)	20.21 (13.3,30.8)
Inland South	6.09 (4.3,8.7)	1.36 (0.8,2.4)	4.03 (2.3,7.0)	8.27 (5.6,12.1)	14.44 (10.3,20.3)	19.46 (13.9,27.3)	23.15 (16.5,32.4)	31.63 (21.8,45.9)
Inland West	6.89 (4.1,11.5)	1.49 (0.7,3.1)	4.24 (2.3,7.7)	9.37 (5.4,16.1)	16.91 (9.9,28.8)	22.55 (13.8,36.8)	26.61 (16.5,42.9)	37.56 (22.7,62.1)

Table C-32. Trophic level 3 fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	7.40 (5.7,9.6)	2.21 (1.3,3.8)	5.02 (3.5,7.2)	9.82 (7.5,12.9)	17.02 (13.1,22.0)	22.69 (17.4,29.6)	26.67 (20.1,35.3)	37.12 (27.0,51.1)
<b>Gender</b>								
Female	6.25 (4.8,8.2)	1.89 (1.1,3.4)	4.29 (2.9,6.3)	8.26 (6.2,11.0)	14.27 (10.9,18.7)	19.65 (14.9,25.9)	23.04 (17.3,30.7)	30.29 (21.1,43.5)
Male	8.86 (6.8,11.6)	2.79 (1.6,4.7)	6.16 (4.3,8.9)	11.84 (8.9,15.7)	19.58 (15.0,25.5)	26.16 (20.0,34.3)	31.43 (23.6,41.9)	43.53 (31.2,60.8)
<b>Age</b>								
21 to <35 yrs	7.04 (4.8,10.3)	1.83 (0.8,4.2)	4.43 (2.5,7.9)	9.11 (5.9,14.1)	16.46 (11.3,24.0)	23.04 (16.0,33.3)	27.79 (20.0,38.6)	39.30 (27.5,56.1)
35 to <50 yrs	6.88 (4.9,9.8)	2.12 (1.4,3.3)	4.78 (3.4,6.8)	8.99 (6.0,13.4)	15.83 (11.1,22.7)	20.81 (13.8,31.4)	25.07 (16.8,37.5)	34.07 (22.2,52.2)
50 to <65 yrs	9.31 (6.4,13.4)	3.37 (1.8,6.2)	7.01 (4.3,11.3)	12.62 (8.6,18.4)	20.10 (14.1,28.6)	25.43 (18.4,35.2)	29.52 (21.2,41.2)	39.79 (26.6,59.5)
65+ yrs	6.30 (4.5,8.8)	1.94 (1.1,3.4)	4.27 (2.8,6.4)	8.35 (6.0,11.7)	14.07 (9.5,20.8)	18.81 (12.1,29.2)	23.03 (15.3,34.7)	31.34 (19.5,50.3)
<b>WCA (13-49 years)</b>	5.31 (4.1,6.9)	1.19 (0.7,2.0)	3.36 (2.3,5.0)	6.95 (5.2,9.3)	12.62 (9.6,16.6)	17.94 (13.7,23.5)	21.72 (16.5,28.7)	29.33 (20.7,41.5)
<b>Income</b>								
<\$20,000	6.96 (5.3,9.2)	1.69 (1.1,2.7)	4.37 (3.1,6.2)	9.28 (7.0,12.4)	16.75 (12.7,22.1)	22.84 (17.0,30.7)	26.79 (18.8,38.2)	36.93 (23.5,58.1)
>\$20,000	7.39 (5.6,9.7)	2.30 (1.3,4.0)	5.09 (3.5,7.4)	9.81 (7.4,13.0)	16.86 (12.9,22.0)	22.25 (16.9,29.3)	26.46 (19.8,35.3)	36.90 (26.8,50.9)
Income unknown	9.54 (4.8,19.0)	2.79 (0.8,10.3)	6.65 (2.6,17.2)	13.08 (6.2,27.5)	22.73 (11.2,46.0)	27.82 (17.0,45.6)	31.39 (21.0,46.9)	43.79 (27.5,69.8)
<b>Income, finer detail</b>								
<\$20,000	6.96 (5.3,9.2)	1.69 (1.1,2.7)	4.37 (3.1,6.2)	9.28 (7.0,12.4)	16.75 (12.7,22.1)	22.84 (17.0,30.7)	26.79 (18.8,38.2)	36.93 (23.5,58.1)
\$20k-\$45k	6.51 (4.8,8.7)	1.89 (1.0,3.5)	4.39 (2.8,6.8)	8.59 (6.3,11.8)	14.88 (11.2,19.8)	19.71 (14.6,26.5)	23.39 (17.0,32.2)	34.42 (24.0,49.4)
\$45k-\$75k	7.58 (5.5,10.5)	2.24 (1.2,4.2)	5.15 (3.1,8.4)	10.25 (6.9,15.2)	17.45 (12.7,24.0)	23.10 (17.1,31.2)	27.18 (20.2,36.5)	37.20 (26.6,52.0)
\$75k+	7.98 (6.0,10.6)	2.70 (1.7,4.2)	5.62 (4.0,7.8)	10.49 (7.7,14.4)	17.85 (13.3,24.0)	23.51 (17.3,31.9)	27.40 (19.5,38.4)	38.12 (26.7,54.4)
>\$20,000	7.48 (4.1,13.7)	2.72 (0.9,8.1)	5.58 (2.5,12.6)	10.12 (5.5,18.6)	16.06 (9.4,27.4)	20.92 (12.4,35.4)	25.37 (14.5,44.5)	33.62 (18.1,62.4)
Inc Ref/DK	9.44 (4.5,19.7)	2.72 (0.8,9.4)	6.68 (2.5,17.7)	13.40 (5.8,30.8)	22.93 (10.3,50.9)	27.60 (15.3,49.9)	30.12 (18.1,50.2)	36.66 (21.2,63.5)
Inc missing	9.76 (3.6,26.7)	2.89 (0.5,15.2)	6.52 (1.8,23.3)	11.76 (4.6,29.8)	22.02 (8.8,55.1)	29.34 (12.5,69.1)	41.68 (12.1,143.3)	69.77 (12.5,389.9)
<b>Race/Ethnicity</b>								
Mexican American	8.04 (5.5,11.8)	2.28 (1.3,4.1)	5.72 (3.4,9.6)	10.97 (7.2,16.6)	18.15 (12.5,26.4)	24.28 (16.6,35.6)	28.14 (19.4,40.9)	37.76 (24.4,58.5)
Other Hispanic	6.96 (4.6,10.6)	2.07 (0.9,4.7)	4.85 (2.7,8.6)	9.37 (5.9,14.8)	15.63 (10.2,24.0)	20.56 (13.3,31.8)	24.58 (15.7,38.5)	36.12 (21.8,59.8)
White	6.32 (4.8,8.3)	2.00 (1.1,3.5)	4.43 (3.1,6.4)	8.39 (6.3,11.3)	14.35 (10.8,19.1)	18.95 (13.9,25.9)	22.41 (16.0,31.5)	30.02 (19.8,45.6)
Black	8.81 (6.9,11.3)	3.14 (1.9,5.1)	6.79 (4.7,9.8)	12.07 (9.4,15.5)	19.04 (14.4,25.1)	24.13 (17.3,33.7)	28.36 (19.9,40.4)	36.54 (23.5,56.8)
Other race	16.30 (10.3,25.8)	6.37 (2.7,14.9)	13.28 (6.5,27.0)	23.44 (12.7,43.3)	32.88 (23.2,46.6)	40.42 (28.7,56.9)	45.90 (30.5,69.0)	61.43 (36.3,104.0)

Table C-32. Trophic level 3 fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.78 (3.3,6.8)	1.55 (0.7,3.3)	3.35 (2.0,5.7)	6.27 (4.3,9.1)	10.74 (7.6,15.2)	14.07 (9.9,19.9)	16.94 (11.8,24.2)	24.63 (16.6,36.5)
Northeast	8.39 (6.1,11.6)	2.44 (1.5,4.0)	5.90 (4.0,8.6)	11.65 (8.3,16.3)	19.33 (13.9,26.9)	24.83 (18.0,34.3)	29.33 (20.6,41.8)	37.92 (25.5,56.3)
South	8.20 (6.3,10.7)	2.66 (1.5,4.7)	5.88 (3.9,8.8)	11.04 (8.2,14.9)	18.20 (13.8,23.9)	23.72 (17.8,31.6)	27.66 (19.9,38.4)	37.85 (26.3,54.5)
West	8.34 (5.9,11.7)	2.64 (1.6,4.4)	5.63 (3.8,8.4)	10.83 (7.6,15.4)	19.16 (13.3,27.6)	25.51 (17.7,36.7)	30.24 (21.4,42.8)	41.95 (28.2,62.5)
<b>Coastal Status</b>								
Noncoastal	6.73 (4.7,9.6)	1.96 (1.1,3.6)	4.55 (2.8,7.3)	8.97 (6.2,12.9)	15.56 (11.0,22.0)	20.67 (14.8,28.8)	24.60 (17.6,34.3)	33.97 (23.4,49.4)
Coastal	8.44 (6.2,11.4)	2.70 (1.8,4.1)	5.86 (4.1,8.3)	11.17 (8.0,15.6)	19.04 (13.9,26.0)	25.37 (18.6,34.7)	29.79 (20.9,42.5)	40.94 (27.5,60.9)
<b>Coastal/Inland Region</b>								
Pacific	7.89 (5.2,11.9)	2.35 (1.4,4.0)	5.12 (3.1,8.4)	9.73 (5.7,16.5)	18.49 (12.5,27.4)	25.82 (17.7,37.6)	30.79 (20.8,45.6)	43.67 (27.1,70.3)
Atlantic	8.76 (5.5,14.1)	3.14 (1.8,5.5)	6.51 (3.9,10.8)	11.72 (7.0,19.6)	18.87 (11.3,31.5)	24.52 (14.7,41.0)	28.52 (16.5,49.3)	39.36 (24.6,62.9)
Gulf of Mexico	11.27 (8.0,16.0)	4.02 (1.8,9.1)	8.79 (5.1,15.2)	16.11 (10.8,23.9)	24.16 (16.5,35.3)	29.80 (18.1,49.2)	34.07 (18.8,61.8)	47.32 (24.9,89.8)
Great Lakes	5.94 (4.1,8.6)	1.90 (1.1,3.3)	4.12 (2.7,6.3)	7.82 (5.2,11.7)	13.36 (9.1,19.6)	17.73 (11.8,26.5)	21.67 (14.5,32.4)	30.62 (19.4,48.4)
Inland Northeast	7.74 (4.9,12.2)	1.90 (1.0,3.7)	5.09 (2.9,8.8)	10.79 (6.6,17.6)	18.60 (11.3,30.7)	23.55 (15.2,36.6)	27.77 (17.8,43.2)	36.80 (23.2,58.4)
Inland Midwest	4.47 (2.8,7.1)	1.47 (0.6,3.6)	3.18 (1.6,6.3)	5.86 (3.6,9.5)	10.03 (6.4,15.7)	12.96 (8.8,19.2)	15.52 (10.4,23.1)	20.92 (13.3,32.9)
Inland South	7.33 (5.0,10.7)	2.28 (1.2,4.3)	5.32 (3.1,9.1)	9.91 (6.6,14.8)	16.58 (11.3,24.2)	21.65 (15.0,31.2)	25.13 (17.8,35.5)	33.97 (23.1,49.9)
Inland West	8.81 (5.0,15.5)	3.03 (1.3,7.0)	6.26 (3.3,11.9)	11.90 (6.6,21.5)	19.51 (11.4,33.4)	25.07 (15.2,41.3)	29.34 (18.2,47.4)	39.19 (24.2,63.6)

Table C-33. Trophic level 3 fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	3.06 (2.2,4.3)	0.43 (0.2,0.8)	1.24 (0.8,2.0)	3.51 (2.4,5.2)	7.82 (5.5,11.0)	11.99 (8.6,16.7)	15.53 (11.3,21.3)	24.98 (18.1,34.5)
<b>Gender</b>								
Female	2.57 (1.8,3.6)	0.36 (0.2,0.7)	1.04 (0.7,1.6)	2.96 (2.0,4.5)	6.64 (4.6,9.5)	9.83 (6.9,13.9)	12.74 (9.0,18.0)	21.59 (15.8,29.6)
Male	3.56 (2.4,5.2)	0.52 (0.3,0.9)	1.51 (0.9,2.5)	4.12 (2.7,6.3)	9.27 (6.1,14.0)	13.95 (9.5,20.4)	18.23 (12.1,27.5)	28.49 (19.1,42.5)
<b>Age</b>								
1 to <3 yrs	1.80 (1.0,3.1)	0.22 (0.1,0.4)	0.69 (0.4,1.1)	1.78 (1.2,2.7)	3.89 (2.5,6.1)	6.48 (3.7,11.4)	9.58 (4.5,20.4)	22.70 (5.1,100.7)
3 to <6 yrs	2.18 (1.5,3.1)	0.35 (0.1,0.9)	1.08 (0.5,2.6)	2.85 (1.7,4.8)	5.58 (4.0,7.9)	7.82 (5.6,11.0)	10.11 (7.3,13.9)	14.13 (9.6,20.7)
6 to <11 yrs	3.44 (2.1,5.7)	0.48 (0.3,0.9)	1.42 (0.8,2.4)	4.24 (2.2,8.1)	8.76 (5.2,14.8)	13.37 (7.9,22.7)	17.56 (10.3,29.8)	27.25 (15.4,48.1)
11 to <16 yrs	2.88 (1.8,4.6)	0.49 (0.2,1.1)	1.35 (0.7,2.7)	3.53 (2.1,6.1)	7.58 (4.7,12.3)	10.81 (6.7,17.4)	13.57 (8.4,22.0)	19.50 (10.7,35.7)
16 to <18 yrs	2.90 (1.9,4.5)	0.31 (0.1,0.8)	0.92 (0.4,2.2)	2.71 (1.3,5.5)	6.90 (4.1,11.5)	12.64 (7.7,20.8)	18.57 (9.5,36.4)	29.57 (14.2,61.5)
18 to <21 yrs	4.78 (2.9,7.9)	0.75 (0.4,1.6)	2.38 (1.1,4.9)	6.11 (3.3,11.4)	12.25 (7.1,21.1)	17.30 (10.8,27.7)	21.62 (13.6,34.4)	31.85 (19.5,51.9)
<b>Income</b>								
<\$20,000	3.43 (2.4,4.8)	0.51 (0.3,0.8)	1.41 (0.9,2.1)	3.88 (2.5,6.1)	8.87 (6.1,12.8)	13.52 (9.5,19.2)	18.06 (12.9,25.2)	26.45 (18.2,38.4)
>\$20,000	2.89 (2.0,4.2)	0.41 (0.2,0.8)	1.19 (0.7,2.0)	3.34 (2.2,5.2)	7.43 (5.0,11.0)	11.35 (7.8,16.4)	14.42 (10.2,20.3)	23.75 (15.8,35.7)
Income unknown	4.89 (1.8,13.0)	0.47 (0.2,1.1)	2.15 (0.5,8.8)	5.89 (1.6,21.3)	13.29 (4.1,43.5)	20.57 (6.9,61.6)	27.51 (9.5,79.5)	36.34 (15.8,83.7)
<b>Income, finer detail</b>								
<\$20,000	3.43 (2.4,4.8)	0.51 (0.3,0.8)	1.41 (0.9,2.1)	3.88 (2.5,6.1)	8.87 (6.1,12.8)	13.52 (9.5,19.2)	18.06 (12.9,25.2)	26.45 (18.2,38.4)
\$20k-\$45k	2.89 (1.9,4.5)	0.41 (0.2,0.8)	1.22 (0.7,2.2)	3.50 (2.0,6.2)	7.44 (4.9,11.3)	11.32 (7.5,17.0)	14.25 (9.9,20.5)	21.16 (14.9,30.1)
\$45k-\$75k	2.63 (1.8,3.8)	0.38 (0.2,0.7)	1.08 (0.7,1.7)	2.96 (1.9,4.5)	7.05 (4.8,10.3)	10.42 (6.9,15.7)	13.50 (9.0,20.3)	22.03 (14.6,33.2)
\$75k+	3.01 (1.9,4.7)	0.42 (0.2,0.8)	1.24 (0.7,2.2)	3.40 (2.1,5.6)	7.63 (4.6,12.7)	11.92 (7.2,19.7)	15.41 (9.6,24.7)	27.50 (15.2,49.9)
>\$20,000	3.54 (1.6,7.6)	0.56 (0.2,1.7)	1.72 (0.7,4.1)	4.45 (1.9,10.4)	9.04 (4.2,19.5)	13.11 (5.9,29.1)	14.65 (7.0,30.8)	26.81 (8.1,88.6)
Inc Ref/DK	4.22 (1.5,12.0)	0.46 (0.2,1.2)	1.82 (0.5,6.6)	5.51 (1.3,23.6)	12.01 (3.1,46.3)	16.69 (5.6,50.2)	19.00 (8.6,41.9)	27.51 (13.3,56.7)
Inc missing	5.81 (1.3,25.8)	0.49 (0.1,1.7)	2.58 (0.4,16.8)	6.45 (1.2,34.2)	17.89 (2.4,131.2)	28.29 (4.2,191.1)	30.62 (7.0,134.0)	36.93 (12.3,110.7)
<b>Race/Ethnicity</b>								
Mexican American	2.36 (1.5,3.6)	0.39 (0.2,0.7)	1.07 (0.7,1.7)	2.88 (1.9,4.4)	6.05 (3.9,9.3)	8.90 (5.4,14.6)	11.18 (6.3,19.9)	16.97 (8.3,34.5)
Other Hispanic	1.27 (0.3,6.2)	0.20 (0.1,0.5)	0.53 (0.1,2.1)	1.38 (0.2,8.1)	3.34 (0.7,16.3)	5.04 (1.0,26.6)	6.57 (1.3,33.4)	10.89 (2.6,45.0)
White	2.45 (1.4,4.3)	0.36 (0.2,0.7)	1.03 (0.5,1.9)	2.75 (1.6,4.7)	6.25 (3.5,11.2)	9.64 (5.2,17.7)	12.76 (6.7,24.5)	20.30 (10.6,38.9)
Black	4.54 (2.6,8.0)	1.01 (0.6,1.7)	2.72 (1.7,4.4)	6.07 (3.5,10.7)	10.94 (5.9,20.3)	14.80 (7.7,28.6)	17.82 (8.9,35.8)	24.47 (11.0,54.3)
Other race	7.71 (3.4,17.3)	1.12 (0.5,2.5)	4.07 (1.4,12.3)	9.99 (4.0,24.9)	21.81 (7.5,63.1)	29.19 (12.5,68.1)	33.26 (17.6,63.0)	49.58 (22.9,107.5)

Table C-33. Trophic level 3 fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.14 (1.3,3.6)	0.33 (0.1,0.9)	0.83 (0.4,1.6)	2.27 (1.3,4.1)	5.44 (3.0,9.7)	8.65 (4.6,16.1)	11.48 (6.1,21.5)	19.07 (10.5,34.6)
Northeast	3.02 (1.8,5.0)	0.36 (0.2,0.6)	1.12 (0.6,2.0)	3.43 (2.2,5.2)	7.74 (4.5,13.3)	12.84 (6.0,27.7)	16.31 (7.6,34.9)	23.84 (11.8,48.2)
South	3.62 (2.5,5.3)	0.61 (0.4,1.0)	1.74 (1.1,2.8)	4.53 (2.9,7.0)	9.02 (6.0,13.5)	13.10 (8.8,19.6)	16.62 (11.2,24.6)	24.90 (17.0,36.5)
West	3.21 (1.9,5.5)	0.40 (0.2,0.8)	1.26 (0.6,2.4)	3.41 (2.0,5.9)	8.01 (4.6,13.9)	13.16 (7.1,24.5)	18.10 (9.3,35.4)	29.67 (14.7,60.0)
<b>Coastal Status</b>								
Noncoastal	2.60 (1.7,4.0)	0.39 (0.2,0.7)	1.10 (0.6,1.9)	3.02 (1.9,4.9)	6.63 (4.3,10.2)	10.00 (6.8,14.8)	13.07 (8.8,19.5)	20.39 (13.6,30.6)
Coastal	3.79 (2.7,5.2)	0.51 (0.3,0.8)	1.54 (1.1,2.2)	4.41 (3.1,6.4)	9.91 (6.9,14.3)	14.76 (10.4,21.0)	19.34 (13.6,27.5)	30.41 (20.5,45.1)
<b>Coastal/Inland Region</b>								
Pacific	3.44 (1.9,6.2)	0.31 (0.2,0.6)	0.98 (0.5,1.8)	3.14 (1.9,5.2)	9.45 (4.9,18.3)	15.27 (7.6,30.6)	23.82 (8.1,69.7)	34.22 (12.7,92.4)
Atlantic	3.38 (2.0,5.8)	0.62 (0.4,1.1)	1.74 (1.0,3.1)	4.43 (2.7,7.4)	8.61 (5.0,14.8)	12.13 (6.8,21.6)	14.75 (8.1,27.0)	20.04 (9.2,43.6)
Gulf of Mexico	6.73 (2.1,21.3)	1.32 (0.3,5.6)	3.79 (0.9,16.0)	8.73 (2.5,30.9)	16.68 (5.2,53.3)	23.66 (7.8,71.8)	29.15 (10.2,83.2)	36.93 (17.8,76.4)
Great Lakes	2.53 (1.0,6.6)	0.41 (0.2,0.9)	1.09 (0.5,2.4)	2.83 (1.0,7.7)	6.03 (1.8,20.0)	9.84 (3.5,28.0)	13.48 (5.3,34.6)	21.88 (9.1,52.4)
Inland Northeast	2.51 (1.7,3.8)	0.24 (0.1,0.5)	0.74 (0.2,2.3)	2.29 (0.9,5.7)	6.05 (3.9,9.4)	11.42 (5.5,23.6)	15.23 (6.4,36.2)	26.45 (8.4,83.7)
Inland Midwest	2.02 (1.0,4.2)	0.32 (0.1,1.2)	0.78 (0.3,2.0)	2.10 (0.8,5.3)	5.21 (2.1,13.1)	8.40 (3.6,19.7)	11.35 (4.9,26.1)	17.13 (8.8,33.5)
Inland South	2.90 (1.9,4.4)	0.51 (0.3,0.9)	1.47 (0.9,2.5)	3.76 (2.3,6.0)	7.12 (4.4,11.5)	10.49 (6.5,16.8)	12.95 (7.9,21.2)	18.98 (11.7,30.8)
Inland West	3.02 (1.5,6.2)	0.53 (0.2,1.4)	1.49 (0.6,3.7)	3.57 (1.7,7.5)	7.32 (3.7,14.6)	10.97 (5.4,22.2)	13.78 (6.6,28.7)	24.82 (9.0,68.6)

Table C-34. Trophic level 4 fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	7.34 (5.6,9.6)	1.51 (0.8,2.7)	4.58 (3.2,6.6)	9.81 (7.4,13.1)	17.47 (13.0,23.4)	23.98 (17.7,32.4)	29.12 (21.5,39.5)	41.25 (30.3,56.2)
<b>Gender</b>								
Female	6.73 (5.2,8.8)	1.38 (0.8,2.5)	4.28 (3.0,6.2)	9.15 (7.0,12.0)	16.12 (12.1,21.5)	21.88 (16.2,29.6)	26.23 (19.0,36.3)	36.57 (25.8,51.8)
Male	8.06 (6.1,10.7)	1.67 (0.9,3.0)	4.96 (3.4,7.3)	10.68 (7.8,14.7)	19.20 (14.0,26.3)	26.31 (19.2,36.1)	32.67 (24.4,43.7)	46.55 (34.7,62.5)
<b>Age</b>								
1 to <3 yrs	1.80 (1.2,2.7)	0.26 (0.1,0.5)	0.83 (0.4,1.6)	2.12 (1.3,3.4)	4.32 (2.7,6.9)	6.69 (4.1,10.9)	9.11 (5.6,14.7)	14.59 (9.3,23.0)
3 to <6 yrs	2.61 (1.6,4.2)	0.46 (0.2,1.3)	1.47 (0.6,3.5)	3.36 (1.8,6.1)	6.38 (4.0,10.2)	8.45 (5.8,12.4)	10.52 (7.0,15.8)	16.56 (10.3,26.7)
6 to <11 yrs	3.64 (2.1,6.2)	0.58 (0.3,1.1)	1.92 (1.0,3.5)	4.72 (2.8,7.8)	9.40 (5.4,16.3)	13.57 (7.5,24.6)	16.17 (8.8,29.7)	22.57 (11.4,44.8)
11 to <16 yrs	3.27 (1.9,5.6)	0.54 (0.3,1.1)	1.69 (0.8,3.7)	4.16 (2.2,7.7)	7.84 (4.6,13.2)	11.06 (6.6,18.6)	14.12 (8.1,24.6)	22.57 (11.6,43.8)
16 to <18 yrs	4.46 (2.9,6.9)	0.57 (0.3,1.2)	1.99 (1.1,3.7)	5.88 (3.5,9.9)	12.03 (7.6,19.1)	17.12 (10.8,27.0)	20.02 (12.2,32.9)	28.87 (17.6,47.5)
18 to <21 yrs	7.35 (4.0,13.6)	0.94 (0.5,1.9)	3.27 (1.6,6.8)	8.24 (4.7,14.5)	17.29 (9.4,31.9)	26.68 (13.7,51.9)	41.28 (17.0,100.1)	67.90 (23.4,197.3)
21 to <35 yrs	7.21 (5.3,9.7)	1.77 (0.8,4.0)	4.64 (2.8,7.8)	9.56 (6.8,13.4)	16.73 (12.2,22.9)	22.95 (16.3,32.4)	28.02 (19.7,39.9)	39.63 (26.6,59.1)
35 to <50 yrs	7.91 (5.8,10.8)	2.61 (1.7,3.9)	5.74 (4.2,7.9)	10.61 (7.7,14.6)	17.67 (12.7,24.6)	23.41 (16.6,32.9)	27.63 (19.1,39.9)	37.01 (24.2,56.6)
50 to <65 yrs	12.11 (8.6,17.1)	4.47 (2.5,8.0)	8.87 (6.0,13.1)	16.09 (11.6,22.3)	26.03 (18.6,36.4)	34.47 (24.1,49.2)	40.32 (28.3,57.5)	56.32 (36.7,86.3)
65+ yrs	8.36 (5.0,13.9)	2.98 (1.8,4.9)	6.18 (3.8,10.1)	11.23 (6.7,18.9)	17.96 (9.9,32.5)	23.89 (13.5,42.4)	27.89 (14.8,52.5)	38.31 (20.9,70.3)
<b>Income</b>								
<\$20,000	5.87 (4.4,7.8)	0.98 (0.6,1.8)	3.35 (2.2,5.1)	7.51 (5.6,10.1)	14.48 (11.0,19.0)	20.02 (15.0,26.7)	25.88 (18.8,35.6)	38.22 (26.5,55.2)
>\$20,000	7.59 (5.8,10.0)	1.65 (0.9,2.9)	4.81 (3.4,6.9)	10.19 (7.6,13.7)	17.97 (13.2,24.5)	24.44 (17.7,33.8)	29.73 (21.6,40.9)	41.57 (29.9,57.8)
Income unknown	8.26 (4.5,15.2)	1.72 (0.5,5.8)	5.30 (2.0,14.2)	11.33 (5.5,23.2)	19.31 (11.5,32.3)	26.67 (16.4,43.3)	31.25 (20.9,46.7)	47.85 (28.9,79.2)
<b>Income, finer detail</b>								
<\$20,000	5.87 (4.4,7.8)	0.98 (0.6,1.8)	3.35 (2.2,5.1)	7.51 (5.6,10.1)	14.48 (11.0,19.0)	20.02 (15.0,26.7)	25.88 (18.8,35.6)	38.22 (26.5,55.2)
\$20k-\$45k	6.42 (4.6,9.0)	1.31 (0.8,2.2)	3.99 (2.7,5.9)	8.48 (6.0,12.1)	14.98 (10.0,22.4)	20.46 (13.1,32.0)	25.39 (16.6,38.9)	38.55 (27.0,55.0)
\$45k-\$75k	7.14 (5.1,10.1)	1.48 (0.9,2.5)	4.40 (2.9,6.6)	9.51 (6.6,13.8)	17.18 (11.8,25.0)	23.61 (16.1,34.6)	28.32 (19.1,41.9)	39.76 (26.5,59.8)
\$75k+	8.82 (6.8,11.5)	2.20 (1.1,4.4)	6.01 (4.1,8.8)	12.06 (9.1,16.0)	20.67 (15.5,27.5)	26.89 (19.4,37.2)	32.43 (23.6,44.6)	44.95 (32.3,62.5)
>\$20,000	7.96 (4.8,13.1)	1.86 (0.9,3.7)	5.20 (2.9,9.4)	10.54 (6.5,17.2)	17.86 (11.3,28.3)	26.20 (15.1,45.5)	33.64 (17.1,66.2)	44.02 (24.2,80.0)
Inc Ref/DK	7.68 (4.4,13.5)	1.68 (0.6,4.9)	5.30 (2.0,14.2)	11.00 (5.4,22.2)	18.17 (10.8,30.5)	23.27 (14.8,36.5)	27.23 (17.2,43.0)	38.31 (22.1,66.3)
Inc missing	9.38 (3.6,24.2)	1.76 (0.3,9.9)	5.27 (1.5,18.5)	12.09 (4.4,33.3)	22.52 (9.6,53.1)	32.41 (14.2,73.9)	44.77 (15.8,126.5)	55.32 (28.2,108.3)
<b>Race/Ethnicity</b>								
Mexican American	5.71 (4.0,8.1)	0.98 (0.5,1.8)	3.30 (1.9,5.7)	7.49 (5.1,11.0)	14.12 (9.9,20.1)	19.32 (14.0,26.7)	23.76 (17.2,32.8)	33.29 (22.3,49.7)
Other Hispanic	6.06 (4.1,8.9)	0.97 (0.5,1.9)	3.45 (2.2,5.5)	7.90 (5.2,12.0)	14.73 (10.0,21.8)	21.25 (14.5,31.2)	25.88 (17.5,38.2)	37.95 (25.7,55.9)
White	7.41 (5.6,9.8)	1.61 (0.9,3.0)	4.71 (3.3,6.8)	9.88 (7.2,13.5)	17.44 (12.5,24.3)	23.90 (17.1,33.4)	28.98 (20.8,40.5)	41.14 (29.9,56.6)
Black	6.86 (5.1,9.2)	1.46 (0.9,2.5)	4.29 (2.9,6.4)	9.19 (6.7,12.6)	16.43 (12.2,22.2)	22.39 (16.4,30.5)	27.69 (20.7,37.0)	38.31 (28.1,52.2)
Other race	11.14 (8.4,14.8)	2.98 (1.3,6.9)	7.79 (4.9,12.4)	15.21 (11.1,20.9)	25.03 (17.7,35.4)	33.96 (23.7,48.7)	40.27 (27.0,60.0)	58.54 (40.5,84.6)

Table C-34. Trophic level 4 fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	5.86 (4.0,8.5)	1.15 (0.6,2.4)	3.65 (2.2,6.0)	7.87 (5.3,11.7)	13.82 (9.0,21.3)	19.05 (12.1,29.9)	23.65 (15.4,36.3)	33.85 (22.2,51.7)
Northeast	8.94 (6.4,12.4)	1.77 (1.1,3.0)	5.59 (3.8,8.2)	12.16 (8.7,17.1)	21.63 (15.3,30.5)	29.34 (20.7,41.6)	34.80 (24.4,49.6)	48.89 (33.6,71.1)
South	7.02 (5.4,9.1)	1.42 (0.8,2.5)	4.26 (2.9,6.2)	9.09 (6.8,12.1)	16.61 (12.7,21.8)	23.05 (17.4,30.6)	28.90 (21.9,38.1)	43.65 (31.6,60.2)
West	8.27 (6.1,11.2)	2.00 (1.0,3.9)	5.77 (3.9,8.5)	11.49 (8.4,15.7)	19.23 (13.6,27.2)	25.31 (17.4,36.8)	29.96 (20.1,44.7)	39.91 (25.1,63.5)
<b>Coastal Status</b>								
Noncoastal	7.22 (5.3,9.8)	1.51 (0.8,2.9)	4.65 (2.9,7.4)	9.74 (7.1,13.4)	17.15 (12.7,23.2)	23.24 (17.0,31.8)	27.79 (20.0,38.7)	39.54 (28.0,55.8)
Coastal	7.52 (5.3,10.6)	1.51 (0.9,2.5)	4.48 (3.0,6.6)	9.91 (6.7,14.7)	18.07 (11.9,27.3)	25.32 (17.3,37.2)	31.02 (21.4,45.1)	44.49 (31.6,62.6)
<b>Coastal/Inland Region</b>								
Pacific	7.28 (4.6,11.5)	1.55 (0.9,2.8)	4.93 (3.1,7.7)	10.12 (6.4,16.0)	17.11 (10.0,29.2)	23.37 (14.4,38.0)	26.95 (15.0,48.5)	35.63 (18.4,69.2)
Atlantic	7.87 (4.7,13.1)	1.84 (1.0,3.3)	4.97 (2.8,8.9)	10.62 (6.2,18.3)	18.60 (10.7,32.2)	25.44 (15.2,42.6)	30.95 (19.1,50.0)	41.93 (25.2,69.9)
Gulf of Mexico	8.51 (5.0,14.5)	1.28 (0.6,2.7)	3.69 (2.2,6.1)	9.34 (5.9,14.9)	22.32 (11.3,44.1)	34.97 (16.6,73.7)	45.37 (21.8,94.4)	67.85 (35.1,131.2)
Great Lakes	6.13 (4.0,9.4)	0.91 (0.5,1.7)	3.09 (1.8,5.2)	7.63 (4.4,13.3)	15.95 (10.3,24.6)	23.27 (15.4,35.1)	28.73 (19.2,43.1)	41.61 (29.1,59.5)
Inland Northeast	9.28 (5.7,15.1)	1.56 (0.8,2.9)	5.68 (3.4,9.6)	12.64 (7.9,20.3)	22.91 (13.7,38.3)	31.12 (18.2,53.1)	37.22 (21.9,63.2)	50.25 (29.7,85.0)
Inland Midwest	5.76 (3.9,8.5)	1.22 (0.5,2.8)	3.80 (2.1,6.7)	7.88 (5.2,12.0)	13.42 (8.9,20.2)	18.14 (11.9,27.6)	21.97 (14.4,33.5)	31.05 (20.5,47.0)
Inland South	6.47 (4.7,8.8)	1.35 (0.7,2.7)	4.26 (2.5,7.2)	8.68 (6.3,12.0)	15.12 (11.4,20.1)	20.76 (15.6,27.6)	24.38 (18.2,32.7)	34.53 (24.8,48.0)
Inland West	9.27 (6.0,14.4)	2.53 (0.9,7.5)	6.58 (3.6,12.0)	12.67 (8.2,19.5)	21.11 (14.0,32.0)	27.13 (18.0,40.8)	33.12 (21.9,50.1)	43.77 (28.0,68.3)

Table C-35. Trophic level 4 fish usual fish consumption rate estimates, adults ≥21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	8.75 (6.7,11.5)	2.69 (1.6,4.5)	6.08 (4.4,8.4)	11.63 (8.7,15.6)	19.63 (14.5,26.6)	26.23 (19.2,35.9)	31.73 (23.5,42.9)	43.40 (31.4,60.1)
<b>Gender</b>								
Female	7.97 (6.1,10.4)	2.42 (1.4,4.1)	5.62 (4.1,7.7)	10.70 (8.1,14.1)	18.01 (13.5,24.1)	23.95 (17.6,32.6)	28.46 (20.5,39.5)	38.42 (26.7,55.4)
Male	9.73 (7.3,13.0)	3.08 (1.9,5.0)	6.82 (4.8,9.7)	12.87 (9.3,17.9)	21.74 (15.7,30.1)	29.35 (21.7,39.6)	35.30 (26.3,47.5)	48.37 (35.2,66.5)
<b>Age</b>								
21 to <35 yrs	7.21 (5.3,9.7)	1.77 (0.8,4.0)	4.64 (2.8,7.8)	9.56 (6.8,13.4)	16.73 (12.2,22.9)	22.95 (16.3,32.4)	28.02 (19.7,39.9)	39.63 (26.6,59.1)
35 to <50 yrs	7.91 (5.8,10.8)	2.61 (1.7,3.9)	5.74 (4.2,7.9)	10.61 (7.7,14.6)	17.67 (12.7,24.6)	23.41 (16.6,32.9)	27.63 (19.1,39.9)	37.01 (24.2,56.6)
50 to <65 yrs	12.11 (8.6,17.1)	4.47 (2.5,8.0)	8.87 (6.0,13.1)	16.09 (11.6,22.3)	26.03 (18.6,36.4)	34.47 (24.1,49.2)	40.32 (28.3,57.5)	56.32 (36.7,86.3)
65+ yrs	8.36 (5.0,13.9)	2.98 (1.8,4.9)	6.18 (3.8,10.1)	11.23 (6.7,18.9)	17.96 (9.9,32.5)	23.89 (13.5,42.4)	27.89 (14.8,52.5)	38.31 (20.9,70.3)
<b>WCA (13-49 years)</b>	6.43 (5.0,8.3)	1.45 (0.8,2.6)	4.20 (2.9,6.2)	8.71 (6.7,11.4)	15.23 (11.5,20.1)	20.45 (15.1,27.7)	24.65 (18.0,33.8)	34.24 (24.2,48.5)
<b>Income</b>								
<\$20,000	7.14 (5.3,9.5)	1.64 (0.9,3.0)	4.64 (3.1,6.9)	9.11 (6.8,12.2)	16.59 (12.5,22.0)	23.30 (17.1,31.8)	28.73 (20.4,40.5)	40.04 (27.5,58.3)
>\$20,000	9.00 (6.8,12.0)	2.90 (1.8,4.6)	6.34 (4.6,8.8)	11.96 (8.7,16.4)	20.08 (14.5,27.7)	26.45 (18.7,37.4)	32.06 (23.2,44.2)	43.53 (30.8,61.5)
Income unknown	9.68 (5.4,17.3)	2.88 (0.8,11.0)	7.12 (2.7,18.4)	13.24 (6.9,25.5)	20.89 (13.5,32.4)	29.29 (18.1,47.3)	32.64 (21.6,49.4)	49.83 (29.5,84.1)
<b>Income, finer detail</b>								
<\$20,000	7.14 (5.3,9.5)	1.64 (0.9,3.0)	4.64 (3.1,6.9)	9.11 (6.8,12.2)	16.59 (12.5,22.0)	23.30 (17.1,31.8)	28.73 (20.4,40.5)	40.04 (27.5,58.3)
\$20k-\$45k	7.51 (5.3,10.7)	2.28 (1.4,3.8)	5.18 (3.6,7.5)	9.99 (6.9,14.4)	16.71 (11.0,25.4)	22.41 (14.2,35.5)	27.32 (17.5,42.6)	38.85 (25.4,59.5)
\$45k-\$75k	8.40 (6.0,11.9)	2.52 (1.6,4.1)	5.70 (3.8,8.5)	11.14 (7.7,16.2)	19.18 (13.4,27.5)	25.60 (17.6,37.2)	30.66 (21.4,44.0)	41.07 (27.1,62.3)
\$75k+	10.62 (8.1,13.9)	3.83 (2.4,6.0)	7.91 (5.7,10.9)	14.26 (10.7,19.0)	22.95 (17.0,31.0)	29.83 (21.8,40.8)	35.16 (25.4,48.6)	46.33 (31.4,68.3)
>\$20,000	9.31 (5.7,15.1)	2.96 (1.5,5.9)	6.56 (3.9,11.1)	11.94 (7.5,19.0)	19.89 (12.5,31.7)	29.27 (15.8,54.2)	36.32 (18.1,73.0)	45.96 (25.4,83.0)
Inc Ref/DK	8.85 (5.3,14.9)	2.85 (0.8,9.9)	6.99 (2.8,17.4)	12.35 (6.9,22.1)	19.02 (12.3,29.5)	24.89 (15.7,39.6)	29.29 (18.3,46.8)	40.91 (23.0,72.7)
Inc missing	11.56 (4.2,31.5)	3.06 (0.4,21.1)	7.48 (2.0,28.6)	15.70 (5.1,48.3)	26.67 (10.5,67.7)	39.22 (14.8,104.1)	46.62 (18.1,119.8)	55.32 (27.3,112.1)
<b>Race/Ethnicity</b>								
Mexican American	7.46 (5.1,11.0)	1.97 (0.9,4.2)	5.19 (2.9,9.2)	10.02 (6.5,15.3)	16.76 (11.8,23.9)	22.56 (16.2,31.5)	27.40 (19.4,38.7)	37.40 (25.0,55.9)
Other Hispanic	7.81 (5.1,11.9)	2.14 (1.1,4.3)	5.17 (3.1,8.6)	10.39 (6.6,16.4)	17.90 (11.9,26.9)	24.93 (16.2,38.3)	28.71 (19.2,43.0)	41.70 (27.4,63.6)
White	8.54 (6.3,11.6)	2.69 (1.7,4.4)	6.00 (4.3,8.4)	11.41 (8.2,15.9)	19.18 (13.5,27.3)	25.50 (17.8,36.6)	30.90 (22.1,43.2)	41.54 (28.7,60.2)
Black	8.72 (6.5,11.7)	2.74 (1.4,5.4)	6.20 (4.1,9.3)	11.74 (8.6,16.0)	19.38 (14.4,26.1)	26.00 (19.3,35.0)	31.26 (23.3,41.9)	42.03 (30.6,57.8)
Other race	13.62 (10.2,18.3)	4.90 (2.9,8.2)	10.34 (7.0,15.4)	18.35 (13.3,25.3)	28.73 (20.5,40.3)	38.34 (27.1,54.2)	47.20 (33.9,65.7)	62.93 (41.8,94.8)

Table C-35. Trophic level 4 fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	7.16 (4.8,10.7)	2.16 (1.2,4.0)	4.88 (3.1,7.7)	9.64 (6.4,14.5)	16.11 (10.4,24.9)	21.45 (13.5,34.2)	25.88 (16.3,41.1)	37.87 (25.8,55.6)
Northeast	10.23 (7.3,14.3)	3.04 (1.8,5.2)	7.36 (5.1,10.7)	14.12 (10.0,19.8)	23.38 (16.7,32.7)	30.50 (21.5,43.4)	35.31 (24.3,51.3)	46.24 (29.8,71.7)
South	8.48 (6.6,10.9)	2.52 (1.5,4.2)	5.76 (4.1,8.1)	10.91 (8.3,14.3)	19.04 (14.6,24.8)	25.85 (19.6,34.1)	32.13 (24.0,43.0)	46.62 (33.2,65.4)
West	9.83 (7.3,13.3)	3.56 (2.1,6.1)	7.39 (5.2,10.4)	13.25 (9.6,18.2)	21.39 (15.2,30.0)	27.43 (18.8,40.1)	32.29 (21.8,47.9)	42.71 (27.7,65.9)
<b>Coastal Status</b>								
Noncoastal	8.53 (6.3,11.5)	2.72 (1.4,5.4)	6.10 (4.1,9.1)	11.44 (8.4,15.6)	19.13 (14.1,25.9)	24.99 (18.0,34.6)	30.21 (21.9,41.7)	40.58 (28.4,57.9)
Coastal	9.08 (6.2,13.2)	2.66 (1.7,4.2)	6.05 (3.9,9.4)	12.01 (7.9,18.1)	20.67 (13.7,31.1)	28.09 (19.1,41.4)	34.18 (23.9,48.9)	47.20 (32.8,67.9)
<b>Coastal/Inland Region</b>								
Pacific	8.76 (5.6,13.7)	2.99 (1.8,5.1)	6.51 (4.1,10.3)	11.93 (7.6,18.7)	19.17 (11.6,31.8)	25.40 (15.8,40.7)	29.54 (17.7,49.2)	38.63 (22.3,66.8)
Atlantic	9.40 (5.5,16.1)	2.91 (1.4,6.1)	6.53 (3.5,12.0)	12.78 (7.5,21.7)	20.93 (11.9,36.7)	28.04 (16.7,47.0)	33.54 (20.4,55.1)	45.05 (27.6,73.6)
Gulf of Mexico	10.25 (5.6,18.8)	2.13 (1.0,4.4)	5.07 (3.0,8.6)	11.72 (6.9,19.9)	26.29 (12.1,57.0)	38.78 (17.2,87.3)	49.62 (22.8,108.1)	69.59 (35.2,137.8)
Great Lakes	7.76 (4.7,12.8)	1.91 (1.0,3.8)	4.56 (2.3,8.9)	10.03 (5.6,17.9)	18.66 (11.2,30.9)	26.34 (16.8,41.4)	33.10 (22.4,48.9)	44.20 (29.3,66.6)
Inland Northeast	10.30 (6.5,16.2)	2.85 (1.3,6.2)	7.42 (4.3,12.7)	14.49 (9.1,23.1)	23.82 (15.2,37.4)	30.73 (19.6,48.2)	35.34 (23.0,54.4)	44.41 (27.3,72.2)
Inland Midwest	6.98 (4.6,10.5)	2.26 (1.1,4.8)	4.93 (3.0,8.1)	9.51 (6.2,14.5)	15.39 (10.2,23.2)	20.20 (13.1,31.2)	24.30 (15.8,37.3)	33.77 (22.1,51.5)
Inland South	7.86 (5.7,10.8)	2.55 (1.1,5.8)	5.79 (3.5,9.7)	10.43 (7.7,14.2)	17.23 (13.1,22.7)	22.87 (17.3,30.3)	27.11 (20.2,36.4)	37.64 (27.0,52.5)
Inland West	10.98 (7.1,16.9)	4.25 (1.8,10.0)	8.39 (5.0,14.1)	14.70 (9.6,22.6)	22.98 (15.3,34.5)	29.70 (19.7,44.7)	35.24 (23.0,53.9)	47.41 (30.2,74.4)

DRAFT DOCUMENT

Table C-36. Trophic level 4 fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	3.84 (2.6,5.6)	0.53 (0.3,1.0)	1.70 (1.0,3.0)	4.47 (2.9,6.9)	9.23 (6.5,13.1)	14.12 (9.9,20.1)	17.97 (12.4,26.0)	29.82 (19.2,46.4)
<b>Gender</b>								
Female	3.35 (2.4,4.8)	0.48 (0.3,0.9)	1.51 (0.9,2.7)	4.02 (2.6,6.2)	8.42 (5.9,12.0)	12.82 (9.1,18.1)	15.89 (11.1,22.8)	24.78 (16.7,36.7)
Male	4.34 (2.8,6.7)	0.58 (0.3,1.1)	1.95 (1.0,3.7)	4.90 (3.1,7.6)	10.10 (6.9,14.7)	15.82 (10.6,23.6)	21.20 (13.6,33.1)	37.82 (21.0,68.0)
<b>Age</b>								
1 to <3 yrs	1.80 (1.2,2.7)	0.26 (0.1,0.5)	0.83 (0.4,1.6)	2.12 (1.3,3.4)	4.32 (2.7,6.9)	6.69 (4.1,10.9)	9.11 (5.6,14.7)	14.59 (9.3,23.0)
3 to <6 yrs	2.61 (1.6,4.2)	0.46 (0.2,1.3)	1.47 (0.6,3.5)	3.36 (1.8,6.1)	6.38 (4.0,10.2)	8.45 (5.8,12.4)	10.52 (7.0,15.8)	16.56 (10.3,26.7)
6 to <11 yrs	3.64 (2.1,6.2)	0.58 (0.3,1.1)	1.92 (1.0,3.5)	4.72 (2.8,7.8)	9.40 (5.4,16.3)	13.57 (7.5,24.6)	16.17 (8.8,29.7)	22.57 (11.4,44.8)
11 to <16 yrs	3.27 (1.9,5.6)	0.54 (0.3,1.1)	1.69 (0.8,3.7)	4.16 (2.2,7.7)	7.84 (4.6,13.2)	11.06 (6.6,18.6)	14.12 (8.1,24.6)	22.57 (11.6,43.8)
16 to <18 yrs	4.46 (2.9,6.9)	0.57 (0.3,1.2)	1.99 (1.1,3.7)	5.88 (3.5,9.9)	12.03 (7.6,19.1)	17.12 (10.8,27.0)	20.02 (12.2,32.9)	28.87 (17.6,47.5)
18 to <21 yrs	7.35 (4.0,13.6)	0.94 (0.5,1.9)	3.27 (1.6,6.8)	8.24 (4.7,14.5)	17.29 (9.4,31.9)	26.68 (13.7,51.9)	41.28 (17.0,100.1)	67.90 (23.4,197.3)
<b>Income</b>								
<\$20,000	3.24 (2.2,4.7)	0.47 (0.3,0.8)	1.54 (0.9,2.7)	4.02 (2.7,6.0)	7.92 (5.1,12.4)	11.88 (7.3,19.2)	15.21 (9.4,24.5)	21.85 (11.2,42.5)
>\$20,000	3.92 (2.6,5.9)	0.54 (0.3,1.0)	1.72 (1.0,3.1)	4.51 (2.8,7.2)	9.46 (6.4,13.9)	14.41 (9.9,21.0)	18.65 (12.7,27.4)	31.91 (19.7,51.7)
Income unknown	5.01 (2.1,11.8)	0.67 (0.3,1.8)	2.45 (0.7,8.4)	5.97 (2.2,16.0)	12.59 (4.9,32.2)	19.04 (7.7,47.1)	22.52 (10.9,46.5)	41.35 (14.6,116.7)
<b>Income, finer detail</b>								
<\$20,000	3.24 (2.2,4.7)	0.47 (0.3,0.8)	1.54 (0.9,2.7)	4.02 (2.7,6.0)	7.92 (5.1,12.4)	11.88 (7.3,19.2)	15.21 (9.4,24.5)	21.85 (11.2,42.5)
\$20k-\$45k	3.69 (2.4,5.6)	0.49 (0.3,0.9)	1.55 (0.9,2.7)	4.07 (2.6,6.4)	8.59 (5.9,12.4)	13.22 (9.2,18.9)	17.28 (11.7,25.5)	32.18 (17.5,59.0)
\$45k-\$75k	3.61 (2.2,5.9)	0.47 (0.2,0.9)	1.58 (0.8,3.0)	4.10 (2.5,6.8)	8.86 (5.4,14.6)	13.66 (7.9,23.6)	17.45 (9.1,33.5)	29.46 (13.8,62.8)
\$75k+	4.32 (2.6,7.1)	0.62 (0.3,1.4)	2.03 (0.9,4.4)	5.18 (2.9,9.3)	10.47 (6.7,16.5)	15.91 (10.2,24.9)	20.03 (13.0,30.9)	32.35 (20.3,51.7)
>\$20,000	3.60 (1.8,7.2)	0.79 (0.2,2.6)	2.07 (1.1,3.8)	3.97 (1.9,8.2)	7.94 (3.3,19.1)	13.85 (5.6,34.1)	15.79 (5.5,45.4)	31.21 (10.8,89.8)
Inc Ref/DK	4.49 (1.5,13.5)	0.54 (0.2,1.3)	2.06 (0.7,6.1)	5.38 (1.5,18.9)	12.59 (2.7,57.9)	18.04 (4.9,66.5)	20.58 (7.7,55.0)	26.80 (13.1,54.7)
Inc missing	5.72 (2.1,15.3)	0.93 (0.1,6.0)	2.81 (0.7,11.8)	6.87 (2.2,21.0)	13.25 (5.1,34.6)	19.96 (7.6,52.6)	28.52 (9.5,85.8)	43.41 (13.8,136.4)
<b>Race/Ethnicity</b>								
Mexican American	3.01 (1.8,4.9)	0.44 (0.2,0.8)	1.42 (0.8,2.5)	3.73 (2.3,6.0)	7.34 (4.4,12.3)	11.44 (7.0,18.8)	14.52 (8.2,25.6)	21.98 (10.8,44.8)
Other Hispanic	2.88 (1.1,7.7)	0.37 (0.1,1.2)	1.15 (0.4,3.7)	3.51 (1.4,8.6)	7.25 (2.6,20.2)	11.19 (4.1,30.2)	14.85 (5.6,39.1)	22.76 (7.9,65.3)
White	4.06 (2.0,8.1)	0.52 (0.2,1.2)	1.64 (0.8,3.5)	4.44 (2.3,8.4)	9.76 (5.2,18.2)	15.34 (8.0,29.6)	19.85 (10.5,37.6)	38.61 (13.5,110.6)
Black	3.14 (1.9,5.3)	0.62 (0.3,1.1)	1.93 (1.2,3.2)	4.12 (2.5,6.8)	7.38 (3.9,14.1)	10.27 (5.0,21.1)	12.57 (5.9,27.0)	18.50 (8.5,40.1)
Other race	5.85 (3.8,9.0)	1.05 (0.4,2.9)	3.48 (1.4,8.5)	8.20 (4.6,14.6)	14.46 (8.6,24.5)	19.42 (8.9,42.2)	22.57 (8.3,61.1)	34.10 (13.0,89.2)

Table C-36. Trophic level 4 fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.55 (1.8,3.7)	0.42 (0.2,1.0)	1.20 (0.6,2.4)	3.29 (1.9,5.7)	6.37 (4.3,9.3)	9.02 (5.5,14.7)	11.12 (6.0,20.5)	17.33 (8.4,35.6)
Northeast	5.57 (2.5,12.7)	0.63 (0.4,1.1)	2.16 (1.3,3.6)	5.54 (3.5,8.8)	13.71 (6.3,30.0)	22.42 (8.3,60.6)	34.38 (8.5,139.3)	57.49 (10.8,304.8)
South	3.31 (2.1,5.1)	0.48 (0.3,0.9)	1.55 (0.9,2.7)	3.96 (2.4,6.4)	7.83 (4.8,12.7)	11.56 (7.1,18.9)	14.69 (8.9,24.3)	24.67 (15.5,39.2)
West	4.73 (2.7,8.2)	0.74 (0.3,2.0)	2.34 (0.9,6.0)	6.19 (2.9,13.3)	12.30 (6.6,22.8)	17.20 (10.2,29.1)	21.54 (13.2,35.3)	28.48 (14.3,56.9)
<b>Coastal Status</b>								
Noncoastal	3.99 (2.5,6.4)	0.55 (0.3,1.0)	1.76 (1.0,3.2)	4.63 (2.9,7.5)	9.54 (6.3,14.6)	14.74 (9.3,23.4)	18.91 (11.7,30.6)	34.14 (16.3,71.6)
Coastal	3.59 (2.5,5.2)	0.50 (0.2,1.1)	1.63 (0.8,3.2)	4.23 (2.6,6.9)	8.86 (6.0,13.2)	13.09 (8.8,19.6)	16.85 (10.7,26.4)	25.89 (13.6,49.1)
<b>Coastal/Inland Region</b>								
Pacific	3.41 (2.1,5.5)	0.50 (0.2,1.3)	1.63 (0.7,3.8)	4.38 (2.4,8.2)	8.72 (5.2,14.5)	12.98 (6.5,26.0)	16.02 (6.5,39.6)	21.98 (5.7,84.6)
Atlantic	3.72 (2.1,6.6)	0.60 (0.3,1.3)	2.02 (0.9,4.5)	4.73 (2.5,9.0)	9.16 (5.0,16.7)	13.08 (7.4,23.0)	16.41 (9.4,28.7)	25.02 (14.2,44.0)
Gulf of Mexico	4.65 (2.0,10.7)	0.43 (0.2,0.9)	1.55 (0.8,3.1)	4.45 (2.1,9.4)	10.10 (4.7,21.6)	16.59 (7.4,37.4)	24.95 (10.0,62.4)	63.52 (12.6,321.0)
Great Lakes	2.52 (1.3,4.7)	0.36 (0.1,1.1)	1.08 (0.5,2.5)	2.67 (1.5,4.8)	5.89 (2.9,11.9)	10.16 (5.0,20.6)	13.90 (6.4,30.2)	22.75 (8.1,64.2)
Inland Northeast	6.58 (2.2,19.5)	0.57 (0.3,1.1)	1.98 (1.0,3.8)	5.36 (3.1,9.2)	16.82 (5.4,52.6)	34.38 (5.4,218.3)	45.70 (6.4,326.9)	74.42 (7.8,708.6)
Inland Midwest	2.56 (1.7,3.9)	0.44 (0.2,1.1)	1.27 (0.6,2.8)	3.47 (1.8,6.8)	6.41 (4.2,9.8)	8.78 (5.3,14.5)	10.49 (5.5,19.9)	15.61 (7.4,33.0)
Inland South	2.91 (1.7,5.0)	0.47 (0.2,0.9)	1.45 (0.8,2.7)	3.75 (2.1,6.7)	7.23 (4.0,13.0)	10.51 (5.8,19.1)	13.18 (7.1,24.4)	19.64 (10.8,35.6)
Inland West	5.82 (2.3,14.7)	1.12 (0.3,4.9)	3.24 (0.8,13.4)	7.77 (2.6,23.2)	14.54 (5.9,35.7)	19.75 (9.2,42.6)	23.99 (11.5,50.1)	35.38 (16.8,74.5)

Table C-37. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	2.70 (2.0,3.7)	0.35 (0.2,0.7)	1.17 (0.7,2.0)	3.21 (2.2,4.7)	6.93 (5.1,9.5)	10.55 (7.7,14.5)	13.55 (9.7,18.9)	20.68 (14.0,30.5)
<b>Gender</b>								
Female	2.32 (1.7,3.2)	0.31 (0.2,0.6)	1.03 (0.6,1.7)	2.82 (1.9,4.1)	5.93 (4.3,8.2)	8.99 (6.4,12.6)	11.54 (8.0,16.6)	17.44 (11.5,26.4)
Male	3.15 (2.3,4.4)	0.41 (0.2,0.8)	1.37 (0.8,2.4)	3.76 (2.5,5.7)	8.20 (5.9,11.5)	12.35 (8.8,17.3)	15.92 (11.1,22.8)	24.42 (15.5,38.6)
<b>Age</b>								
1 to <3 yrs	0.64 (0.3,1.3)	0.07 (0.0,0.2)	0.23 (0.1,0.5)	0.65 (0.3,1.3)	1.62 (0.8,3.4)	2.76 (1.1,6.9)	3.70 (1.5,9.3)	5.88 (2.4,14.5)
3 to <6 yrs	0.89 (0.5,1.5)	0.11 (0.1,0.2)	0.35 (0.2,0.7)	0.98 (0.6,1.7)	2.35 (1.4,4.0)	3.50 (2.2,5.6)	4.53 (2.8,7.3)	7.48 (4.6,12.1)
6 to <11 yrs	0.98 (0.5,1.8)	0.11 (0.0,0.3)	0.36 (0.2,0.8)	1.07 (0.6,2.0)	2.50 (1.4,4.6)	3.92 (2.2,7.1)	5.33 (2.8,10.2)	8.91 (4.1,19.6)
11 to <16 yrs	1.28 (0.6,2.6)	0.15 (0.0,0.5)	0.50 (0.2,1.3)	1.42 (0.6,3.3)	3.14 (1.4,7.1)	5.14 (2.6,10.1)	6.61 (3.4,12.9)	10.45 (5.4,20.3)
16 to <18 yrs	1.18 (0.7,2.1)	0.14 (0.1,0.3)	0.42 (0.2,1.0)	1.23 (0.6,2.5)	3.02 (1.6,5.6)	4.94 (2.7,9.0)	6.70 (3.6,12.3)	11.31 (5.4,23.8)
18 to <21 yrs	2.28 (1.0,5.3)	0.24 (0.1,0.5)	0.82 (0.4,1.7)	2.41 (1.2,4.8)	5.86 (2.5,13.8)	8.98 (3.8,21.0)	12.91 (4.3,39.2)	22.29 (5.6,88.1)
21 to <35 yrs	3.23 (2.2,4.6)	0.52 (0.3,1.0)	1.59 (1.0,2.6)	4.05 (2.6,6.2)	8.21 (5.6,12.1)	11.96 (8.2,17.4)	14.88 (10.4,21.3)	21.37 (15.3,29.9)
35 to <50 yrs	3.70 (2.5,5.4)	0.66 (0.3,1.3)	1.87 (1.1,3.1)	4.52 (3.0,6.8)	9.01 (6.2,13.2)	13.82 (8.7,22.0)	17.48 (10.5,29.0)	26.20 (14.0,48.9)
50 to <65 yrs	3.28 (2.1,5.1)	0.66 (0.3,1.6)	1.76 (0.9,3.5)	4.15 (2.5,6.9)	8.36 (5.7,12.2)	11.88 (8.2,17.2)	14.39 (9.9,20.8)	20.11 (13.7,29.4)
65+ yrs	2.59 (1.8,3.7)	0.47 (0.2,1.0)	1.29 (0.7,2.3)	3.14 (2.0,4.8)	6.45 (4.6,9.0)	9.44 (6.9,12.9)	11.99 (8.8,16.4)	18.19 (12.6,26.4)
<b>Income</b>								
<\$20,000	2.20 (1.5,3.1)	0.27 (0.1,0.5)	0.89 (0.5,1.6)	2.57 (1.7,4.0)	5.72 (4.0,8.2)	8.65 (6.1,12.2)	11.64 (8.3,16.3)	17.00 (11.9,24.2)
>\$20,000	2.79 (2.0,3.8)	0.37 (0.2,0.7)	1.22 (0.7,2.1)	3.31 (2.2,5.0)	7.15 (5.2,9.9)	10.81 (7.8,14.9)	13.96 (9.8,19.9)	21.39 (13.9,32.8)
Income unknown	2.86 (1.5,5.4)	0.38 (0.2,0.9)	1.39 (0.6,3.5)	3.83 (1.6,9.1)	7.49 (3.9,14.5)	11.16 (5.6,22.2)	12.84 (7.6,21.8)	18.22 (10.8,30.7)
<b>Income, finer detail</b>								
<\$20,000	2.20 (1.5,3.1)	0.27 (0.1,0.5)	0.89 (0.5,1.6)	2.57 (1.7,4.0)	5.72 (4.0,8.2)	8.65 (6.1,12.2)	11.64 (8.3,16.3)	17.00 (11.9,24.2)
\$20k-\$45k	2.52 (1.7,3.6)	0.33 (0.2,0.6)	1.06 (0.6,1.8)	2.94 (1.9,4.5)	6.52 (4.4,9.6)	9.83 (6.8,14.2)	12.98 (8.3,20.2)	19.63 (12.5,30.7)
\$45k-\$75k	2.82 (1.8,4.3)	0.37 (0.2,0.7)	1.20 (0.7,2.1)	3.36 (2.1,5.4)	7.24 (4.7,11.2)	10.84 (7.1,16.6)	14.16 (8.8,22.7)	21.51 (12.9,35.7)
\$75k+	2.96 (2.0,4.4)	0.40 (0.2,0.9)	1.35 (0.7,2.7)	3.55 (2.1,6.1)	7.59 (5.1,11.3)	11.28 (7.9,16.2)	14.86 (10.3,21.5)	22.02 (14.5,33.5)
>\$20,000	3.26 (1.6,6.5)	0.63 (0.2,1.7)	1.58 (0.8,3.3)	3.94 (1.9,8.0)	8.15 (4.0,16.5)	11.89 (5.7,24.6)	15.08 (7.2,31.5)	24.08 (9.0,64.6)
Inc Ref/DK	3.22 (1.7,6.0)	0.52 (0.2,1.2)	1.59 (0.8,3.3)	4.26 (2.0,9.0)	8.04 (4.4,14.6)	11.84 (6.3,22.2)	14.50 (7.9,26.8)	21.32 (11.3,40.2)
Inc missing	2.18 (0.7,7.1)	0.23 (0.1,0.9)	0.92 (0.2,3.8)	3.04 (0.6,15.1)	5.61 (1.8,17.6)	9.24 (2.4,35.5)	11.16 (3.3,37.3)	12.28 (5.6,26.8)
<b>Race/Ethnicity</b>								
Mexican American	3.39 (2.3,4.9)	0.44 (0.2,0.9)	1.44 (0.8,2.6)	4.00 (2.4,6.6)	8.81 (6.0,12.9)	13.34 (9.5,18.7)	17.19 (12.3,24.0)	26.87 (18.2,39.6)
Other Hispanic	3.73 (2.0,6.8)	0.52 (0.2,1.3)	1.71 (0.8,3.5)	4.52 (2.6,7.9)	9.39 (5.5,15.9)	14.74 (7.3,29.7)	18.09 (9.2,35.7)	26.92 (13.1,55.3)
White	2.30 (1.6,3.2)	0.30 (0.1,0.6)	1.01 (0.6,1.8)	2.75 (1.8,4.2)	5.87 (4.1,8.3)	9.02 (6.6,12.3)	11.65 (8.4,16.2)	17.41 (12.5,24.2)
Black	2.80 (1.9,4.1)	0.42 (0.2,0.9)	1.33 (0.7,2.4)	3.45 (2.1,5.5)	7.07 (4.7,10.7)	10.59 (7.4,15.1)	13.59 (9.8,18.9)	19.89 (13.8,28.6)
Other race	4.75 (2.1,10.9)	0.78 (0.3,1.9)	2.56 (1.1,6.1)	6.07 (2.8,13.0)	12.05 (5.2,28.0)	17.02 (7.1,41.0)	20.49 (8.6,49.0)	30.94 (10.2,93.4)

Table C-37. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.47 (0.8,2.7)	0.19 (0.1,0.5)	0.61 (0.3,1.5)	1.69 (0.8,3.5)	3.64 (1.9,7.1)	5.69 (3.2,10.0)	7.56 (4.5,12.6)	12.13 (7.4,19.9)
Northeast	3.65 (2.6,5.0)	0.56 (0.3,0.9)	1.81 (1.2,2.8)	4.63 (3.2,6.6)	9.09 (6.4,12.8)	13.48 (9.3,19.6)	17.02 (11.4,25.4)	25.27 (15.5,41.3)
South	3.14 (2.1,4.7)	0.45 (0.2,0.9)	1.46 (0.8,2.6)	3.88 (2.5,6.1)	8.07 (5.5,11.9)	12.09 (8.1,18.1)	15.39 (10.0,23.6)	22.40 (14.6,34.3)
West	2.73 (1.7,4.3)	0.40 (0.2,0.9)	1.28 (0.7,2.5)	3.24 (1.9,5.6)	6.94 (4.3,11.1)	10.36 (6.4,16.7)	13.34 (7.9,22.4)	20.64 (10.9,39.3)
<b>Coastal Status</b>								
Noncoastal	2.31 (1.7,3.1)	0.28 (0.1,0.6)	0.95 (0.6,1.6)	2.64 (1.8,3.9)	5.84 (4.2,8.0)	9.25 (6.5,13.2)	12.04 (8.1,17.9)	18.66 (11.8,29.6)
Coastal	3.31 (2.2,4.9)	0.52 (0.2,1.1)	1.63 (0.9,3.0)	4.12 (2.5,6.7)	8.38 (5.7,12.4)	12.33 (8.6,17.6)	15.68 (10.9,22.6)	22.64 (15.6,33.0)
<b>Coastal/Inland Region</b>								
Pacific	3.25 (1.8,5.7)	0.49 (0.2,1.1)	1.59 (0.8,3.3)	3.95 (2.1,7.3)	8.20 (4.6,14.7)	11.98 (6.6,21.6)	15.23 (8.2,28.4)	24.08 (10.3,56.5)
Atlantic	3.06 (1.6,6.0)	0.52 (0.2,1.5)	1.58 (0.6,4.0)	3.88 (1.8,8.3)	7.56 (3.8,15.0)	11.03 (6.1,19.9)	14.38 (8.9,23.1)	20.55 (12.8,33.0)
Gulf of Mexico	5.15 (2.6,10.0)	1.02 (0.3,3.3)	3.00 (1.1,7.9)	6.95 (3.3,14.9)	13.23 (7.0,25.1)	17.15 (10.2,29.0)	21.02 (12.2,36.1)	29.82 (17.5,50.7)
Great Lakes	2.33 (1.4,3.8)	0.32 (0.2,0.7)	1.02 (0.5,2.1)	2.75 (1.6,4.8)	5.85 (3.5,9.6)	8.98 (5.3,15.3)	11.31 (6.4,20.0)	16.76 (9.4,29.9)
Inland Northeast	4.00 (2.2,7.4)	0.56 (0.3,1.1)	1.89 (1.1,3.3)	5.07 (2.8,9.4)	10.11 (5.5,18.7)	14.86 (7.5,29.3)	18.50 (9.3,36.6)	28.42 (11.9,68.0)
Inland Midwest	1.23 (0.6,2.5)	0.17 (0.1,0.4)	0.54 (0.2,1.3)	1.43 (0.7,3.1)	3.05 (1.4,6.5)	4.72 (2.4,9.3)	6.12 (3.1,11.9)	10.23 (5.6,18.8)
Inland South	2.67 (1.6,4.5)	0.37 (0.2,0.8)	1.21 (0.7,2.2)	3.26 (1.9,5.7)	6.69 (4.1,10.9)	10.06 (6.0,16.9)	13.14 (7.2,23.9)	19.89 (10.6,37.5)
Inland West	2.22 (1.4,3.6)	0.33 (0.1,0.8)	1.04 (0.5,2.2)	2.58 (1.3,5.0)	5.47 (3.2,9.3)	8.69 (5.5,13.6)	11.22 (6.9,18.1)	16.99 (10.0,28.8)

Table C-38. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	3.29 (2.4,4.4)	0.59 (0.3,1.1)	1.66 (1.0,2.7)	4.07 (2.9,5.8)	8.23 (6.1,11.1)	12.08 (8.8,16.6)	15.25 (10.9,21.4)	22.56 (15.2,33.4)
<b>Gender</b>								
Female	2.80 (2.1,3.8)	0.51 (0.3,0.9)	1.44 (0.9,2.3)	3.46 (2.4,5.0)	6.87 (5.0,9.4)	10.17 (7.3,14.3)	12.79 (8.9,18.4)	19.30 (12.1,30.9)
Male	3.92 (2.8,5.4)	0.72 (0.4,1.5)	2.03 (1.2,3.4)	4.87 (3.3,7.3)	9.79 (7.0,13.6)	14.42 (10.3,20.3)	17.55 (12.6,24.4)	26.51 (17.1,41.2)
<b>Age</b>								
21 to <35 yrs	3.23 (2.2,4.6)	0.52 (0.3,1.0)	1.59 (1.0,2.6)	4.05 (2.6,6.2)	8.21 (5.6,12.1)	11.96 (8.2,17.4)	14.88 (10.4,21.3)	21.37 (15.3,29.9)
35 to <50 yrs	3.70 (2.5,5.4)	0.66 (0.3,1.3)	1.87 (1.1,3.1)	4.52 (3.0,6.8)	9.01 (6.2,13.2)	13.82 (8.7,22.0)	17.48 (10.5,29.0)	26.20 (14.0,48.9)
50 to <65 yrs	3.28 (2.1,5.1)	0.66 (0.3,1.6)	1.76 (0.9,3.5)	4.15 (2.5,6.9)	8.36 (5.7,12.2)	11.88 (8.2,17.2)	14.39 (9.9,20.8)	20.11 (13.7,29.4)
65+ yrs	2.59 (1.8,3.7)	0.47 (0.2,1.0)	1.29 (0.7,2.3)	3.14 (2.0,4.8)	6.45 (4.6,9.0)	9.44 (6.9,12.9)	11.99 (8.8,16.4)	18.19 (12.6,26.4)
<b>WCA (13-49 years)</b>	2.60 (1.8,3.7)	0.38 (0.2,0.7)	1.23 (0.8,2.0)	3.22 (2.2,4.8)	6.51 (4.6,9.1)	9.75 (6.7,14.2)	12.43 (8.2,18.8)	18.56 (11.7,29.4)
<b>Income</b>								
<\$20,000	2.66 (1.8,3.8)	0.40 (0.2,0.8)	1.26 (0.7,2.2)	3.27 (2.1,5.0)	6.68 (4.6,9.7)	10.42 (7.5,14.5)	13.28 (9.4,18.8)	18.46 (12.4,27.6)
>\$20,000	3.40 (2.5,4.6)	0.63 (0.3,1.2)	1.73 (1.0,2.9)	4.18 (2.9,6.1)	8.46 (6.2,11.6)	12.35 (8.9,17.1)	15.73 (10.9,22.7)	23.27 (15.1,35.9)
Income unknown	3.51 (1.8,6.7)	0.58 (0.3,1.3)	1.95 (0.8,4.7)	4.89 (2.0,12.0)	8.60 (4.7,15.9)	11.91 (6.9,20.5)	14.42 (8.4,24.8)	21.32 (11.3,40.2)
<b>Income, finer detail</b>								
<\$20,000	2.66 (1.8,3.8)	0.40 (0.2,0.8)	1.26 (0.7,2.2)	3.27 (2.1,5.0)	6.68 (4.6,9.7)	10.42 (7.5,14.5)	13.28 (9.4,18.8)	18.46 (12.4,27.6)
\$20k-\$45k	3.01 (2.1,4.2)	0.52 (0.3,1.0)	1.45 (0.9,2.4)	3.66 (2.5,5.4)	7.57 (5.3,10.8)	11.27 (7.6,16.7)	14.11 (9.7,20.5)	21.32 (13.8,32.9)
\$45k-\$75k	3.42 (2.2,5.2)	0.61 (0.3,1.2)	1.72 (1.0,3.0)	4.20 (2.6,6.7)	8.67 (5.4,13.9)	12.49 (7.9,19.6)	16.00 (9.7,26.4)	22.80 (14.3,36.5)
\$75k+	3.68 (2.5,5.4)	0.74 (0.3,1.8)	1.97 (1.0,3.8)	4.59 (2.8,7.5)	8.95 (6.0,13.3)	13.19 (9.3,18.8)	16.95 (11.6,24.8)	24.64 (15.3,39.6)
>\$20,000	3.66 (1.9,7.0)	0.81 (0.3,1.9)	1.88 (0.8,4.2)	4.43 (2.2,9.0)	9.04 (4.7,17.5)	13.08 (6.6,26.0)	15.69 (8.1,30.5)	25.94 (9.6,70.0)
Inc Ref/DK	3.80 (2.1,7.0)	0.72 (0.3,1.5)	2.07 (1.1,4.0)	5.08 (2.6,10.1)	9.55 (4.9,18.6)	13.65 (7.0,26.7)	15.92 (8.7,29.1)	23.16 (12.0,44.7)
Inc missing	2.85 (0.8,10.4)	0.32 (0.1,1.5)	1.56 (0.3,8.1)	4.08 (0.8,20.8)	7.72 (1.8,33.0)	11.16 (2.5,50.1)	11.86 (3.9,36.5)	14.22 (5.5,37.1)
<b>Race/Ethnicity</b>								
Mexican American	4.59 (3.2,6.6)	0.86 (0.4,1.7)	2.45 (1.4,4.3)	5.70 (3.6,9.1)	11.39 (8.0,16.2)	16.28 (11.6,22.9)	20.68 (14.7,29.0)	30.29 (20.2,45.5)
Other Hispanic	4.89 (2.8,8.7)	1.02 (0.5,2.2)	2.67 (1.5,4.8)	6.29 (3.6,11.1)	11.80 (6.8,20.3)	17.67 (8.5,36.7)	21.46 (10.5,43.7)	30.05 (15.0,60.3)
White	2.76 (2.0,3.9)	0.50 (0.2,1.0)	1.40 (0.8,2.5)	3.40 (2.2,5.1)	6.86 (4.9,9.6)	10.16 (7.4,13.9)	12.80 (9.3,17.7)	18.67 (13.3,26.1)
Black	3.54 (2.4,5.3)	0.74 (0.4,1.5)	2.00 (1.2,3.5)	4.56 (2.9,7.1)	8.64 (5.8,12.8)	12.45 (8.8,17.6)	15.60 (11.2,21.8)	21.65 (14.6,32.0)
Other race	5.99 (2.7,13.2)	1.48 (0.7,3.3)	3.66 (1.7,7.8)	7.55 (3.9,14.8)	14.86 (5.8,38.1)	19.80 (7.9,49.9)	24.47 (9.0,66.6)	36.74 (9.7,139.5)

Table C-38. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.80 (1.0,3.3)	0.32 (0.1,0.9)	0.87 (0.3,2.2)	2.17 (1.1,4.3)	4.40 (2.4,8.1)	6.70 (3.9,11.4)	8.62 (5.2,14.3)	12.97 (7.6,22.1)
Northeast	4.37 (3.2,6.0)	0.94 (0.6,1.6)	2.51 (1.6,3.8)	5.61 (4.0,7.9)	10.70 (7.5,15.2)	14.86 (10.3,21.5)	18.23 (12.5,26.5)	26.51 (16.8,41.9)
South	3.82 (2.6,5.6)	0.76 (0.4,1.5)	2.09 (1.2,3.6)	4.80 (3.1,7.4)	9.47 (6.5,13.8)	13.76 (9.3,20.5)	16.81 (11.5,24.6)	24.79 (15.6,39.3)
West	3.40 (2.1,5.4)	0.68 (0.3,1.4)	1.82 (1.0,3.3)	4.18 (2.5,6.9)	8.39 (5.1,13.7)	12.01 (7.2,20.1)	15.18 (8.7,26.5)	22.90 (11.6,45.4)
<b>Coastal Status</b>								
Noncoastal	2.83 (2.1,3.8)	0.47 (0.2,0.9)	1.36 (0.8,2.2)	3.38 (2.4,4.8)	6.99 (5.1,9.6)	10.69 (7.4,15.5)	13.50 (9.1,20.1)	20.73 (12.7,33.8)
Coastal	4.02 (2.7,6.0)	0.86 (0.4,1.8)	2.29 (1.3,4.1)	5.09 (3.2,8.2)	9.73 (6.7,14.2)	14.09 (9.9,20.1)	17.09 (12.1,24.2)	24.90 (16.7,37.1)
<b>Coastal/Inland Region</b>								
Pacific	3.94 (2.2,7.0)	0.84 (0.4,1.9)	2.24 (1.1,4.5)	4.96 (2.7,9.1)	9.38 (5.3,16.7)	13.77 (7.3,26.0)	16.70 (8.9,31.2)	26.68 (10.5,68.1)
Atlantic	3.68 (1.9,7.2)	0.84 (0.3,2.6)	2.19 (0.9,5.2)	4.69 (2.2,10.2)	8.65 (4.4,17.1)	12.44 (7.1,21.9)	15.68 (9.7,25.4)	22.00 (13.6,35.6)
Gulf of Mexico	6.34 (3.4,11.9)	1.72 (0.6,5.2)	4.28 (1.8,10.3)	8.71 (4.4,17.3)	15.08 (8.4,26.9)	19.41 (11.5,32.8)	22.47 (13.8,36.5)	30.53 (18.9,49.3)
Great Lakes	2.91 (1.8,4.7)	0.60 (0.3,1.3)	1.57 (0.8,3.0)	3.47 (2.0,6.1)	7.08 (4.3,11.6)	10.14 (6.1,16.9)	12.55 (7.4,21.4)	19.78 (9.6,40.6)
Inland Northeast	4.74 (2.7,8.5)	0.93 (0.5,1.8)	2.63 (1.5,4.6)	6.14 (3.5,10.8)	11.79 (6.2,22.3)	15.92 (8.8,28.8)	19.70 (10.6,36.7)	29.62 (13.7,64.2)
Inland Midwest	1.51 (0.7,3.1)	0.28 (0.1,0.8)	0.75 (0.3,1.9)	1.83 (0.8,3.9)	3.64 (1.7,7.6)	5.50 (2.8,10.7)	7.04 (3.7,13.5)	11.20 (6.0,20.9)
Inland South	3.29 (2.0,5.5)	0.63 (0.3,1.3)	1.73 (1.0,3.1)	4.07 (2.5,6.7)	8.11 (4.8,13.8)	11.72 (6.7,20.4)	14.81 (8.2,26.8)	22.44 (11.1,45.5)
Inland West	2.81 (1.8,4.4)	0.59 (0.3,1.3)	1.50 (0.8,2.9)	3.39 (2.0,5.9)	6.61 (4.1,10.6)	10.37 (6.3,17.0)	12.96 (7.8,21.5)	18.56 (11.0,31.2)

Table C-39. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	1.22 (0.8,1.9)	0.13 (0.1,0.3)	0.42 (0.2,0.8)	1.24 (0.8,2.0)	3.02 (2.0,4.6)	4.96 (3.2,7.7)	6.76 (4.2,10.9)	11.83 (6.3,22.2)
<b>Gender</b>								
Female	1.03 (0.6,1.7)	0.11 (0.0,0.2)	0.35 (0.2,0.6)	1.07 (0.6,1.8)	2.65 (1.6,4.4)	4.30 (2.5,7.3)	5.76 (3.3,10.2)	9.66 (4.9,18.9)
Male	1.41 (0.9,2.2)	0.16 (0.1,0.3)	0.50 (0.3,0.9)	1.46 (0.9,2.4)	3.40 (2.2,5.3)	5.69 (3.7,8.8)	7.84 (4.8,12.7)	14.16 (7.0,28.9)
<b>Age</b>								
1 to <3 yrs	0.64 (0.3,1.3)	0.07 (0.0,0.2)	0.23 (0.1,0.5)	0.65 (0.3,1.3)	1.62 (0.8,3.4)	2.76 (1.1,6.9)	3.70 (1.5,9.3)	5.88 (2.4,14.5)
3 to <6 yrs	0.89 (0.5,1.5)	0.11 (0.1,0.2)	0.35 (0.2,0.7)	0.98 (0.6,1.7)	2.35 (1.4,4.0)	3.50 (2.2,5.6)	4.53 (2.8,7.3)	7.48 (4.6,12.1)
6 to <11 yrs	0.98 (0.5,1.8)	0.11 (0.0,0.3)	0.36 (0.2,0.8)	1.07 (0.6,2.0)	2.50 (1.4,4.6)	3.92 (2.2,7.1)	5.33 (2.8,10.2)	8.91 (4.1,19.6)
11 to <16 yrs	1.28 (0.6,2.6)	0.15 (0.0,0.5)	0.50 (0.2,1.3)	1.42 (0.6,3.3)	3.14 (1.4,7.1)	5.14 (2.6,10.1)	6.61 (3.4,12.9)	10.45 (5.4,20.3)
16 to <18 yrs	1.18 (0.7,2.1)	0.14 (0.1,0.3)	0.42 (0.2,1.0)	1.23 (0.6,2.5)	3.02 (1.6,5.6)	4.94 (2.7,9.0)	6.70 (3.6,12.3)	11.31 (5.4,23.8)
18 to <21 yrs	2.28 (1.0,5.3)	0.24 (0.1,0.5)	0.82 (0.4,1.7)	2.41 (1.2,4.8)	5.86 (2.5,13.8)	8.98 (3.8,21.0)	12.91 (4.3,39.2)	22.29 (5.6,88.1)
<b>Income</b>								
<\$20,000	1.25 (0.8,2.0)	0.13 (0.1,0.3)	0.43 (0.2,0.8)	1.26 (0.7,2.1)	3.05 (2.0,4.7)	5.10 (3.1,8.3)	6.91 (4.1,11.8)	12.86 (5.6,29.8)
>\$20,000	1.20 (0.8,1.9)	0.12 (0.1,0.3)	0.41 (0.2,0.7)	1.21 (0.7,2.0)	2.98 (1.9,4.6)	4.89 (3.1,7.7)	6.72 (4.1,10.9)	11.55 (6.3,21.0)
Income unknown	1.39 (0.6,3.1)	0.21 (0.1,0.9)	0.62 (0.2,2.0)	1.68 (0.6,4.9)	3.41 (1.5,7.6)	5.26 (2.5,11.1)	7.05 (3.1,16.3)	9.57 (3.7,24.8)
<b>Income, finer detail</b>								
<\$20,000	1.25 (0.8,2.0)	0.13 (0.1,0.3)	0.43 (0.2,0.8)	1.26 (0.7,2.1)	3.05 (2.0,4.7)	5.10 (3.1,8.3)	6.91 (4.1,11.8)	12.86 (5.6,29.8)
\$20k-\$45k	1.27 (0.7,2.3)	0.13 (0.1,0.3)	0.42 (0.2,0.8)	1.23 (0.7,2.2)	3.09 (1.7,5.5)	4.99 (2.9,8.7)	6.88 (3.8,12.4)	13.34 (5.2,34.5)
\$45k-\$75k	1.13 (0.7,1.9)	0.12 (0.1,0.3)	0.39 (0.2,0.8)	1.14 (0.6,2.0)	2.78 (1.7,4.6)	4.53 (2.8,7.4)	6.46 (3.7,11.4)	10.32 (6.1,17.4)
\$75k+	1.14 (0.7,1.8)	0.12 (0.0,0.3)	0.39 (0.2,0.8)	1.20 (0.7,2.2)	2.86 (1.8,4.6)	4.89 (3.1,7.7)	6.55 (4.1,10.4)	10.28 (6.1,17.4)
>\$20,000	1.99 (0.7,5.8)	0.28 (0.1,0.9)	0.86 (0.3,2.3)	2.45 (0.8,7.3)	4.82 (1.8,13.1)	7.36 (2.5,21.7)	9.93 (3.0,33.0)	17.64 (3.1,101.6)
Inc Ref/DK	1.64 (0.6,4.3)	0.25 (0.1,0.8)	0.78 (0.2,2.8)	2.11 (0.6,7.8)	4.46 (1.4,14.1)	6.36 (2.3,17.4)	7.83 (3.0,20.6)	11.67 (4.6,29.6)
Inc missing	1.05 (0.3,3.2)	0.15 (0.0,0.9)	0.50 (0.1,2.8)	1.40 (0.3,7.0)	2.90 (0.7,12.4)	3.39 (0.9,12.8)	4.30 (1.1,17.0)	6.39 (1.1,38.2)
<b>Race/Ethnicity</b>								
Mexican American	1.56 (1.0,2.6)	0.21 (0.1,0.5)	0.61 (0.3,1.3)	1.66 (0.9,3.1)	3.82 (2.3,6.4)	6.21 (3.8,10.0)	8.46 (5.2,13.8)	13.92 (8.4,23.1)
Other Hispanic	1.63 (0.7,3.6)	0.19 (0.1,0.4)	0.63 (0.2,1.6)	1.89 (0.8,4.7)	4.02 (2.0,8.0)	6.54 (3.0,14.4)	8.81 (3.7,21.0)	13.12 (6.1,28.1)
White	0.96 (0.6,1.5)	0.10 (0.0,0.2)	0.31 (0.2,0.6)	0.95 (0.6,1.6)	2.31 (1.5,3.6)	3.85 (2.5,6.0)	5.32 (3.4,8.4)	9.22 (5.4,15.7)
Black	1.31 (0.8,2.1)	0.18 (0.1,0.4)	0.55 (0.3,1.1)	1.47 (0.8,2.6)	3.21 (1.9,5.3)	5.02 (3.2,8.0)	6.60 (4.1,10.5)	11.38 (6.8,19.0)
Other race	2.13 (0.8,5.6)	0.28 (0.1,0.9)	0.91 (0.4,2.4)	2.56 (1.0,6.7)	5.68 (2.0,16.3)	8.01 (3.2,20.3)	11.31 (3.3,38.3)	14.48 (6.2,34.1)

Table C-39. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 year (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.63 (0.3,1.4)	0.07 (0.0,0.2)	0.21 (0.1,0.5)	0.62 (0.3,1.5)	1.53 (0.7,3.6)	2.63 (1.2,5.7)	3.49 (1.6,7.8)	6.08 (2.7,13.5)
Northeast	1.78 (1.0,3.3)	0.21 (0.1,0.4)	0.64 (0.4,1.1)	1.79 (1.2,2.7)	4.46 (2.4,8.2)	7.34 (3.3,16.3)	9.38 (4.4,20.2)	19.63 (4.2,92.7)
South	1.39 (0.8,2.4)	0.16 (0.1,0.4)	0.52 (0.3,1.0)	1.53 (0.8,2.8)	3.45 (2.1,5.8)	5.57 (3.2,9.6)	7.30 (4.3,12.4)	12.52 (6.6,23.9)
West	1.22 (0.7,2.1)	0.15 (0.1,0.4)	0.46 (0.2,1.0)	1.35 (0.7,2.5)	3.06 (1.7,5.4)	4.94 (2.8,8.7)	6.65 (3.7,11.9)	11.09 (6.0,20.7)
<b>Coastal Status</b>								
Noncoastal	1.03 (0.7,1.6)	0.10 (0.0,0.2)	0.34 (0.2,0.6)	1.02 (0.6,1.7)	2.44 (1.6,3.8)	4.07 (2.7,6.2)	5.69 (3.5,9.1)	10.05 (5.5,18.4)
Coastal	1.52 (0.9,2.5)	0.19 (0.1,0.4)	0.58 (0.3,1.1)	1.69 (1.0,2.9)	3.82 (2.3,6.2)	6.19 (3.7,10.4)	8.01 (4.8,13.2)	13.08 (7.5,22.7)
<b>Coastal/Inland Region</b>								
Pacific	1.46 (0.8,2.7)	0.17 (0.1,0.4)	0.55 (0.3,1.2)	1.62 (0.8,3.2)	3.67 (1.9,7.0)	6.11 (3.0,12.5)	7.83 (3.9,15.7)	13.08 (5.5,31.0)
Atlantic	1.37 (0.8,2.4)	0.18 (0.1,0.4)	0.54 (0.2,1.2)	1.56 (0.8,3.0)	3.29 (1.7,6.2)	5.39 (3.1,9.2)	6.83 (4.0,11.7)	11.52 (6.8,19.6)
Gulf of Mexico	2.51 (1.1,5.9)	0.41 (0.1,1.4)	1.15 (0.4,3.3)	2.98 (1.2,7.7)	6.31 (2.6,15.1)	8.93 (4.2,19.1)	12.27 (5.2,28.7)	19.16 (7.9,46.5)
Great Lakes	1.04 (0.5,2.1)	0.12 (0.0,0.3)	0.36 (0.2,0.8)	1.00 (0.4,2.5)	2.69 (1.3,5.5)	4.11 (1.9,8.8)	5.78 (2.7,12.4)	10.72 (4.1,27.8)
Inland Northeast	2.03 (0.8,5.5)	0.22 (0.1,0.4)	0.68 (0.4,1.3)	1.94 (1.1,3.5)	5.18 (1.9,14.4)	8.56 (2.5,28.8)	10.22 (3.8,27.5)	22.56 (3.2,160.0)
Inland Midwest	0.51 (0.2,1.1)	0.06 (0.0,0.2)	0.18 (0.1,0.5)	0.53 (0.2,1.2)	1.25 (0.5,2.9)	2.06 (0.9,4.5)	2.78 (1.3,6.1)	4.26 (1.6,11.1)
Inland South	1.10 (0.6,2.0)	0.13 (0.1,0.3)	0.41 (0.2,0.8)	1.17 (0.7,2.1)	2.75 (1.6,4.8)	4.32 (2.4,7.7)	5.76 (3.1,10.7)	10.27 (4.3,24.2)
Inland West	1.02 (0.5,1.9)	0.13 (0.1,0.3)	0.40 (0.2,0.9)	1.13 (0.5,2.4)	2.44 (1.2,5.1)	4.01 (2.1,7.8)	5.10 (2.6,9.9)	8.98 (5.0,16.0)

Table C-40. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	3.30 (2.4,4.5)	0.53 (0.3,1.0)	1.63 (1.0,2.7)	4.09 (2.9,5.8)	8.23 (6.0,11.3)	12.15 (8.5,17.4)	15.41 (10.2,23.4)	22.99 (13.9,38.0)
<b>Gender</b>								
Female	2.73 (1.9,3.9)	0.44 (0.2,0.9)	1.39 (0.8,2.5)	3.42 (2.3,5.2)	6.84 (4.9,9.6)	9.96 (7.1,14.1)	12.39 (8.5,18.0)	18.65 (11.8,29.5)
Male	3.99 (2.9,5.5)	0.66 (0.4,1.1)	2.00 (1.3,3.1)	5.03 (3.7,6.9)	9.93 (7.1,13.9)	14.66 (9.5,22.6)	18.26 (11.4,29.4)	27.22 (15.0,49.3)
<b>Age</b>								
1 to <3 yrs	0.76 (0.4,1.7)	0.10 (0.0,0.2)	0.29 (0.2,0.6)	0.83 (0.4,1.6)	1.87 (0.9,4.0)	3.00 (1.3,7.2)	4.17 (1.5,11.6)	6.99 (2.1,22.7)
3 to <6 yrs	1.01 (0.6,1.7)	0.13 (0.1,0.3)	0.42 (0.2,0.8)	1.15 (0.7,2.0)	2.53 (1.5,4.3)	3.91 (2.3,6.8)	5.39 (2.8,10.2)	8.39 (4.2,16.7)
6 to <11 yrs	1.45 (0.9,2.3)	0.21 (0.1,0.5)	0.62 (0.3,1.3)	1.62 (0.8,3.2)	3.66 (2.3,5.8)	5.79 (3.8,8.8)	7.61 (4.7,12.2)	12.50 (6.6,23.7)
11 to <16 yrs	1.56 (0.9,2.7)	0.19 (0.1,0.6)	0.63 (0.3,1.4)	1.73 (0.9,3.4)	3.95 (2.3,6.9)	6.12 (3.4,10.9)	8.10 (4.4,15.0)	12.47 (6.7,23.2)
16 to <18 yrs	1.64 (1.0,2.7)	0.23 (0.1,0.6)	0.72 (0.4,1.4)	2.06 (1.2,3.5)	4.18 (2.5,6.9)	6.18 (3.7,10.2)	7.85 (4.7,13.2)	12.70 (7.2,22.3)
18 to <21 yrs	2.98 (1.2,7.4)	0.42 (0.2,0.9)	1.35 (0.6,3.1)	3.30 (1.7,6.5)	7.19 (3.1,16.4)	11.94 (3.6,39.5)	15.91 (4.1,62.0)	26.16 (5.3,130.0)
21 to <35 yrs	3.93 (2.6,5.9)	0.77 (0.5,1.2)	2.08 (1.4,3.0)	4.95 (3.4,7.1)	9.43 (6.2,14.4)	13.88 (8.1,23.7)	17.63 (9.5,32.7)	25.99 (13.4,50.4)
35 to <50 yrs	3.89 (2.6,5.9)	0.88 (0.4,1.9)	2.20 (1.1,4.2)	5.00 (3.2,7.8)	9.34 (6.3,13.8)	13.30 (8.9,19.8)	16.75 (11.0,25.5)	23.34 (14.8,36.8)
50 to <65 yrs	4.76 (3.3,6.8)	1.20 (0.6,2.5)	2.87 (1.7,4.9)	5.98 (4.0,8.9)	11.08 (7.7,16.0)	15.75 (10.0,24.8)	19.30 (11.6,32.0)	28.05 (14.7,53.6)
65+ yrs	3.18 (2.1,4.8)	0.71 (0.3,1.8)	1.78 (0.9,3.7)	4.01 (2.5,6.5)	7.53 (5.1,11.2)	10.80 (7.4,15.7)	13.68 (9.3,20.0)	20.24 (12.5,32.8)
<b>Income</b>								
<\$20,000	3.41 (2.5,4.7)	0.50 (0.3,0.9)	1.57 (1.0,2.5)	4.11 (3.0,5.7)	8.48 (6.2,11.5)	12.97 (8.5,19.8)	16.48 (10.1,26.8)	25.89 (13.0,51.5)
>\$20,000	3.21 (2.3,4.5)	0.53 (0.3,1.0)	1.61 (0.9,2.8)	3.99 (2.7,5.9)	8.01 (5.7,11.2)	11.73 (8.2,16.7)	14.86 (9.9,22.2)	22.10 (13.7,35.7)
Income unknown	4.94 (2.4,10.3)	0.90 (0.4,2.1)	2.71 (1.2,6.2)	6.63 (2.9,15.1)	12.08 (6.0,24.4)	17.50 (8.1,37.8)	21.17 (9.8,45.6)	28.43 (14.9,54.4)
<b>Income, finer detail</b>								
<\$20,000	3.41 (2.5,4.7)	0.50 (0.3,0.9)	1.57 (1.0,2.5)	4.11 (3.0,5.7)	8.48 (6.2,11.5)	12.97 (8.5,19.8)	16.48 (10.1,26.8)	25.89 (13.0,51.5)
\$20k-\$45k	2.83 (2.0,4.0)	0.46 (0.2,0.8)	1.40 (0.8,2.3)	3.57 (2.5,5.1)	7.04 (5.0,10.0)	10.27 (7.1,14.8)	13.10 (8.6,19.9)	19.69 (12.2,31.7)
\$45k-\$75k	3.16 (2.2,4.5)	0.47 (0.2,1.0)	1.53 (0.9,2.7)	3.92 (2.6,5.8)	8.06 (5.5,11.8)	11.59 (7.7,17.4)	14.72 (9.3,23.4)	21.52 (12.7,36.5)
\$75k+	3.56 (2.4,5.3)	0.64 (0.3,1.3)	1.85 (0.9,3.8)	4.42 (2.6,7.5)	8.72 (5.9,12.8)	13.00 (9.0,18.7)	16.45 (10.9,24.8)	24.47 (14.7,40.7)
>\$20,000	3.30 (1.1,9.6)	0.65 (0.2,1.8)	1.71 (0.8,3.7)	4.15 (1.6,10.6)	8.25 (2.5,26.8)	11.13 (3.6,34.4)	14.44 (3.8,55.4)	20.65 (5.0,85.2)
Inc Ref/DK	4.70 (2.0,10.9)	0.87 (0.4,2.0)	2.58 (1.1,5.9)	6.30 (2.6,15.1)	11.51 (5.0,26.3)	16.75 (6.4,43.8)	19.63 (7.9,48.7)	26.92 (10.2,71.1)
Inc missing	5.40 (1.8,16.4)	0.93 (0.2,3.8)	2.99 (0.8,11.7)	7.51 (2.0,28.4)	13.54 (4.5,40.6)	17.76 (6.8,46.6)	24.69 (8.0,76.1)	34.15 (11.8,99.1)
<b>Race/Ethnicity</b>								
Mexican American	3.37 (2.3,5.0)	0.52 (0.3,1.0)	1.62 (0.9,2.8)	4.15 (2.6,6.5)	8.43 (5.7,12.5)	12.57 (8.6,18.4)	15.76 (10.6,23.3)	23.41 (14.9,36.9)
Other Hispanic	3.59 (2.1,6.0)	0.59 (0.3,1.1)	1.95 (1.1,3.6)	4.72 (2.7,8.1)	8.86 (5.4,14.5)	12.75 (7.4,22.1)	15.45 (9.0,26.6)	22.63 (12.1,42.3)
White	2.72 (1.9,3.9)	0.45 (0.2,0.9)	1.38 (0.8,2.5)	3.36 (2.1,5.3)	6.75 (4.8,9.6)	9.80 (6.9,14.0)	12.50 (8.4,18.6)	18.99 (11.5,31.3)
Black	4.23 (3.1,5.9)	0.81 (0.4,1.5)	2.38 (1.5,3.9)	5.39 (3.6,8.0)	10.39 (7.6,14.2)	14.58 (10.5,20.3)	18.02 (12.6,25.8)	26.51 (16.9,41.5)
Other race	7.18 (3.9,13.3)	1.63 (0.9,3.0)	4.57 (2.8,7.6)	9.68 (5.6,16.7)	16.94 (8.8,32.7)	23.34 (10.7,50.8)	27.55 (12.5,60.9)	39.74 (14.4,110.0)

Table C-40. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.01 (1.3,3.1)	0.32 (0.2,0.6)	0.98 (0.5,1.8)	2.47 (1.5,4.0)	4.97 (3.3,7.5)	7.23 (4.8,11.0)	9.45 (5.9,15.2)	14.30 (8.3,24.7)
Northeast	3.67 (2.6,5.2)	0.61 (0.3,1.2)	1.93 (1.1,3.4)	4.65 (3.1,6.9)	9.34 (6.3,13.8)	13.62 (8.1,22.8)	16.45 (9.6,28.1)	23.94 (12.3,46.7)
South	4.13 (2.9,5.8)	0.72 (0.4,1.2)	2.10 (1.3,3.5)	5.19 (3.6,7.5)	10.16 (7.2,14.3)	14.86 (10.1,21.9)	18.80 (12.2,29.0)	28.68 (16.0,51.4)
West	3.22 (2.1,5.0)	0.59 (0.3,1.3)	1.73 (0.9,3.4)	4.24 (2.7,6.7)	8.02 (5.1,12.6)	11.29 (7.0,18.3)	14.11 (8.3,23.9)	20.15 (10.8,37.5)
<b>Coastal Status</b>								
Noncoastal	2.69 (1.9,3.8)	0.43 (0.2,0.8)	1.33 (0.8,2.3)	3.30 (2.2,5.0)	6.74 (4.8,9.4)	9.80 (6.7,14.3)	12.74 (7.9,20.5)	18.80 (10.7,33.1)
Coastal	4.26 (3.1,5.9)	0.78 (0.4,1.4)	2.28 (1.3,3.9)	5.40 (3.6,8.0)	10.48 (7.5,14.6)	15.16 (10.6,21.6)	18.85 (12.7,28.0)	27.79 (16.8,45.9)
<b>Coastal/Inland Region</b>								
Pacific	3.54 (2.1,6.0)	0.66 (0.3,1.5)	1.97 (1.0,3.9)	4.72 (2.7,8.3)	8.72 (5.1,15.0)	12.05 (7.0,20.9)	14.99 (8.4,26.8)	21.41 (10.9,42.1)
Atlantic	4.16 (2.6,6.8)	0.84 (0.3,2.2)	2.34 (1.0,5.4)	5.27 (2.8,10.0)	10.22 (6.6,15.8)	14.66 (9.6,22.3)	18.08 (11.5,28.4)	26.76 (14.2,50.3)
Gulf of Mexico	7.64 (4.5,13.1)	1.69 (0.6,4.8)	4.81 (2.2,10.6)	10.30 (5.7,18.5)	18.24 (11.2,29.8)	24.73 (15.4,39.8)	29.89 (17.7,50.4)	41.81 (21.8,80.2)
Great Lakes	2.79 (1.8,4.4)	0.48 (0.2,1.0)	1.46 (0.7,2.9)	3.59 (2.2,5.9)	6.86 (4.4,10.8)	9.95 (6.0,16.4)	12.14 (7.3,20.2)	17.74 (10.0,31.6)
Inland Northeast	3.05 (2.0,4.6)	0.49 (0.2,1.2)	1.55 (0.7,3.5)	3.70 (1.9,7.0)	7.66 (5.2,11.2)	11.23 (7.4,17.0)	14.03 (8.7,22.7)	20.19 (11.2,36.5)
Inland Midwest	1.79 (1.1,2.8)	0.29 (0.2,0.5)	0.88 (0.5,1.6)	2.19 (1.4,3.5)	4.53 (2.8,7.3)	6.36 (4.0,10.1)	8.35 (4.8,14.5)	13.53 (6.0,30.5)
Inland South	3.29 (2.3,4.7)	0.55 (0.3,0.9)	1.71 (1.1,2.6)	4.12 (2.9,5.8)	8.16 (5.6,11.9)	11.56 (7.5,17.8)	14.61 (8.8,24.4)	22.56 (11.0,46.4)
Inland West	2.91 (1.8,4.8)	0.54 (0.2,1.4)	1.52 (0.6,3.6)	3.70 (2.1,6.5)	7.29 (4.5,11.9)	10.18 (6.0,17.2)	12.97 (7.3,23.1)	19.32 (9.4,39.7)

Table C-41. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	3.99 (2.9,5.4)	0.87 (0.5,1.7)	2.24 (1.3,3.7)	5.06 (3.6,7.1)	9.51 (7.0,13.0)	13.78 (9.5,20.1)	17.31 (11.1,27.0)	25.10 (14.9,42.2)
<b>Gender</b>								
Female	3.26 (2.3,4.7)	0.73 (0.4,1.5)	1.87 (1.1,3.3)	4.18 (2.8,6.2)	7.77 (5.5,11.0)	10.90 (7.7,15.5)	13.77 (9.4,20.2)	19.84 (12.5,31.4)
Male	4.93 (3.6,6.8)	1.13 (0.6,2.1)	2.86 (1.9,4.4)	6.30 (4.6,8.6)	11.83 (8.3,17.0)	16.88 (10.6,26.8)	20.52 (12.6,33.4)	29.34 (16.5,52.3)
<b>Age</b>								
21 to <35 yrs	3.93 (2.6,5.9)	0.77 (0.5,1.2)	2.08 (1.4,3.0)	4.95 (3.4,7.1)	9.43 (6.2,14.4)	13.88 (8.1,23.7)	17.63 (9.5,32.7)	25.99 (13.4,50.4)
35 to <50 yrs	3.89 (2.6,5.9)	0.88 (0.4,1.9)	2.20 (1.1,4.2)	5.00 (3.2,7.8)	9.34 (6.3,13.8)	13.30 (8.9,19.8)	16.75 (11.0,25.5)	23.34 (14.8,36.8)
50 to <65 yrs	4.76 (3.3,6.8)	1.20 (0.6,2.5)	2.87 (1.7,4.9)	5.98 (4.0,8.9)	11.08 (7.7,16.0)	15.75 (10.0,24.8)	19.30 (11.6,32.0)	28.05 (14.7,53.6)
65+ yrs	3.18 (2.1,4.8)	0.71 (0.3,1.8)	1.78 (0.9,3.7)	4.01 (2.5,6.5)	7.53 (5.1,11.2)	10.80 (7.4,15.7)	13.68 (9.3,20.0)	20.24 (12.5,32.8)
<b>WCA (13-49 years)</b>	2.91 (2.1,4.1)	0.52 (0.3,1.0)	1.56 (1.0,2.6)	3.69 (2.6,5.3)	7.24 (5.2,10.1)	10.41 (7.3,14.8)	12.89 (8.7,19.0)	19.19 (12.0,30.7)
<b>Income</b>								
<\$20,000	4.11 (3.0,5.6)	0.78 (0.4,1.3)	2.11 (1.3,3.5)	5.04 (3.6,7.0)	9.96 (7.3,13.6)	14.80 (9.7,22.7)	18.28 (11.6,28.9)	28.09 (14.5,54.3)
>\$20,000	3.90 (2.8,5.4)	0.88 (0.4,1.8)	2.23 (1.3,3.8)	4.96 (3.5,7.1)	9.26 (6.7,12.9)	13.23 (9.2,19.1)	16.71 (10.9,25.7)	23.72 (14.9,37.8)
Income unknown	5.86 (2.8,12.3)	1.40 (0.5,3.6)	3.72 (1.6,8.7)	8.13 (3.4,19.2)	14.08 (6.5,30.6)	18.10 (9.5,34.5)	23.55 (9.9,56.2)	31.98 (14.0,72.8)
<b>Income, finer detail</b>								
<\$20,000	4.11 (3.0,5.6)	0.78 (0.4,1.3)	2.11 (1.3,3.5)	5.04 (3.6,7.0)	9.96 (7.3,13.6)	14.80 (9.7,22.7)	18.28 (11.6,28.9)	28.09 (14.5,54.3)
\$20k-\$45k	3.37 (2.4,4.8)	0.73 (0.4,1.4)	1.90 (1.1,3.1)	4.31 (3.0,6.2)	8.08 (5.7,11.5)	11.47 (7.9,16.7)	14.45 (9.5,22.1)	20.96 (13.3,32.9)
\$45k-\$75k	3.85 (2.7,5.5)	0.81 (0.4,1.6)	2.16 (1.3,3.5)	4.97 (3.4,7.2)	9.25 (6.3,13.5)	13.20 (8.6,20.3)	16.37 (10.2,26.4)	22.88 (13.9,37.7)
\$75k+	4.38 (2.9,6.6)	1.09 (0.4,2.8)	2.59 (1.3,5.3)	5.45 (3.2,9.2)	10.36 (7.3,14.8)	14.53 (10.0,21.2)	18.44 (11.9,28.5)	27.05 (15.4,47.5)
>\$20,000	3.74 (1.4,9.8)	0.86 (0.4,1.9)	2.14 (1.0,4.5)	4.91 (1.9,12.7)	9.23 (2.9,29.3)	11.96 (4.1,35.2)	15.82 (4.0,62.0)	22.55 (5.2,97.4)
Inc Ref/DK	5.47 (2.5,12.2)	1.26 (0.6,2.8)	3.55 (1.5,8.5)	7.58 (3.2,18.0)	12.57 (5.9,26.8)	17.92 (7.5,43.1)	21.03 (8.6,51.2)	26.92 (11.4,63.8)
Inc missing	6.74 (2.1,21.6)	1.76 (0.3,9.9)	4.00 (1.2,13.7)	9.49 (2.6,35.0)	16.15 (4.9,53.1)	22.63 (6.4,80.3)	28.43 (7.4,108.7)	34.26 (12.3,95.6)
<b>Race/Ethnicity</b>								
Mexican American	4.47 (3.0,6.7)	1.00 (0.5,1.9)	2.69 (1.6,4.5)	5.80 (3.8,8.9)	10.67 (7.3,15.6)	15.01 (10.2,22.0)	18.15 (11.9,27.6)	27.04 (16.5,44.2)
Other Hispanic	4.66 (2.8,7.7)	1.20 (0.6,2.3)	2.87 (1.6,5.0)	6.19 (3.8,10.2)	10.70 (6.6,17.4)	14.69 (8.7,24.8)	18.39 (10.1,33.5)	25.99 (12.8,52.7)
White	3.24 (2.3,4.6)	0.75 (0.4,1.5)	1.86 (1.0,3.4)	4.12 (2.7,6.2)	7.69 (5.4,11.0)	10.83 (7.6,15.5)	13.91 (9.1,21.2)	20.39 (12.3,33.8)
Black	5.26 (3.8,7.4)	1.38 (0.7,2.7)	3.36 (2.1,5.5)	6.82 (4.7,10.0)	12.17 (8.7,16.9)	16.85 (11.9,23.9)	20.27 (13.8,29.7)	29.04 (18.0,46.9)
Other race	8.89 (5.1,15.6)	3.07 (1.8,5.4)	6.35 (4.0,10.1)	12.01 (6.9,20.8)	19.39 (10.4,36.3)	26.51 (11.8,59.4)	29.82 (14.7,60.5)	44.69 (14.3,139.4)

Table C-41. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.45 (1.6,3.7)	0.54 (0.3,1.2)	1.37 (0.7,2.6)	3.05 (1.9,4.9)	5.73 (3.8,8.7)	8.44 (5.4,13.1)	10.73 (6.5,17.8)	15.82 (8.9,28.2)
Northeast	4.39 (3.1,6.2)	1.02 (0.5,2.2)	2.60 (1.4,4.7)	5.54 (3.7,8.4)	10.70 (7.3,15.8)	15.01 (9.0,24.9)	17.92 (10.6,30.4)	24.92 (13.7,45.5)
South	5.00 (3.6,6.9)	1.16 (0.7,2.1)	2.86 (1.8,4.7)	6.36 (4.5,9.0)	11.89 (8.4,16.9)	17.04 (11.2,25.8)	21.18 (13.3,33.9)	30.86 (17.3,55.1)
West	3.90 (2.5,6.0)	1.00 (0.5,2.1)	2.42 (1.4,4.3)	5.14 (3.3,8.0)	8.97 (5.7,14.2)	12.60 (7.7,20.5)	15.39 (9.1,26.1)	21.43 (11.5,39.8)
<b>Coastal Status</b>								
Noncoastal	3.30 (2.4,4.6)	0.72 (0.4,1.4)	1.85 (1.1,3.2)	4.15 (2.9,6.0)	7.93 (5.6,11.1)	11.29 (7.6,16.8)	14.08 (8.8,22.5)	20.71 (11.6,37.1)
Coastal	5.09 (3.6,7.1)	1.24 (0.6,2.6)	3.08 (1.8,5.2)	6.56 (4.5,9.6)	11.97 (8.6,16.6)	17.10 (11.7,25.0)	20.70 (13.8,31.1)	29.55 (18.0,48.6)
<b>Coastal/Inland Region</b>								
Pacific	4.17 (2.4,7.2)	1.07 (0.5,2.4)	2.66 (1.4,5.1)	5.52 (3.1,9.8)	9.67 (5.6,16.7)	13.01 (7.4,22.9)	16.60 (8.9,30.8)	22.27 (11.5,43.2)
Atlantic	4.96 (3.0,8.2)	1.34 (0.5,3.7)	3.09 (1.4,7.0)	6.39 (3.5,11.6)	11.67 (7.7,17.8)	16.27 (10.6,24.9)	19.93 (12.4,32.1)	27.66 (15.3,50.0)
Gulf of Mexico	9.30 (5.7,15.2)	2.76 (1.1,7.2)	6.54 (3.4,12.7)	12.33 (7.3,20.9)	20.44 (13.0,32.2)	27.82 (17.2,45.1)	33.74 (19.0,59.9)	46.12 (21.8,97.7)
Great Lakes	3.43 (2.1,5.5)	0.85 (0.3,2.1)	2.12 (1.1,4.1)	4.37 (2.6,7.3)	8.23 (5.0,13.4)	11.40 (6.6,19.6)	13.57 (8.1,22.7)	19.78 (10.4,37.6)
Inland Northeast	3.65 (2.4,5.6)	0.77 (0.3,2.2)	2.05 (0.8,5.0)	4.58 (2.6,8.1)	8.86 (6.1,12.9)	13.07 (8.0,21.3)	15.78 (9.2,27.1)	22.37 (11.6,43.2)
Inland Midwest	2.19 (1.4,3.4)	0.49 (0.2,1.0)	1.21 (0.7,2.2)	2.75 (1.8,4.3)	5.16 (3.3,8.1)	7.34 (4.5,11.9)	9.52 (5.2,17.4)	14.24 (6.9,29.5)
Inland South	4.05 (2.8,5.8)	0.95 (0.6,1.6)	2.41 (1.6,3.6)	5.21 (3.7,7.3)	9.34 (6.5,13.5)	13.31 (8.3,21.2)	16.48 (9.5,28.5)	25.89 (10.9,61.5)
Inland West	3.62 (2.2,5.8)	0.94 (0.4,2.2)	2.22 (1.1,4.3)	4.74 (2.9,7.7)	8.39 (5.1,13.7)	11.90 (6.9,20.6)	14.83 (8.0,27.5)	20.49 (10.2,41.0)

Table C-42. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	1.58 (1.1,2.3)	0.19 (0.1,0.4)	0.60 (0.4,1.0)	1.71 (1.1,2.6)	3.90 (2.7,5.7)	6.26 (4.0,9.8)	8.28 (5.0,13.8)	13.88 (7.0,27.4)
<b>Gender</b>								
Female	1.28 (0.9,1.9)	0.15 (0.1,0.3)	0.47 (0.2,0.9)	1.44 (0.9,2.3)	3.22 (2.1,4.8)	5.23 (3.3,8.2)	6.88 (4.3,11.1)	11.60 (6.1,22.2)
Male	1.89 (1.2,2.9)	0.25 (0.1,0.4)	0.76 (0.5,1.2)	2.05 (1.4,3.0)	4.63 (3.1,7.0)	7.29 (4.4,12.0)	9.89 (5.2,18.8)	16.43 (7.2,37.6)
<b>Age</b>								
1 to <3 yrs	0.76 (0.4,1.7)	0.10 (0.0,0.2)	0.29 (0.2,0.6)	0.83 (0.4,1.6)	1.87 (0.9,4.0)	3.00 (1.3,7.2)	4.17 (1.5,11.6)	6.99 (2.1,22.7)
3 to <6 yrs	1.01 (0.6,1.7)	0.13 (0.1,0.3)	0.42 (0.2,0.8)	1.15 (0.7,2.0)	2.53 (1.5,4.3)	3.91 (2.3,6.8)	5.39 (2.8,10.2)	8.39 (4.2,16.7)
6 to <11 yrs	1.45 (0.9,2.3)	0.21 (0.1,0.5)	0.62 (0.3,1.3)	1.62 (0.8,3.2)	3.66 (2.3,5.8)	5.79 (3.8,8.8)	7.61 (4.7,12.2)	12.50 (6.6,23.7)
11 to <16 yrs	1.56 (0.9,2.7)	0.19 (0.1,0.6)	0.63 (0.3,1.4)	1.73 (0.9,3.4)	3.95 (2.3,6.9)	6.12 (3.4,10.9)	8.10 (4.4,15.0)	12.47 (6.7,23.2)
16 to <18 yrs	1.64 (1.0,2.7)	0.23 (0.1,0.6)	0.72 (0.4,1.4)	2.06 (1.2,3.5)	4.18 (2.5,6.9)	6.18 (3.7,10.2)	7.85 (4.7,13.2)	12.70 (7.2,22.3)
18 to <21 yrs	2.98 (1.2,7.4)	0.42 (0.2,0.9)	1.35 (0.6,3.1)	3.30 (1.7,6.5)	7.19 (3.1,16.4)	11.94 (3.6,39.5)	15.91 (4.1,62.0)	26.16 (5.3,130.0)
<b>Income</b>								
<\$20,000	1.98 (1.2,3.2)	0.25 (0.1,0.5)	0.76 (0.5,1.2)	2.24 (1.4,3.5)	5.02 (3.1,8.0)	7.76 (4.5,13.3)	10.61 (5.2,21.7)	16.11 (7.9,32.9)
>\$20,000	1.43 (1.0,2.1)	0.17 (0.1,0.4)	0.56 (0.3,1.0)	1.56 (1.0,2.4)	3.58 (2.5,5.2)	5.67 (3.7,8.7)	7.46 (4.6,12.1)	12.93 (6.2,26.9)
Income unknown	2.83 (1.1,7.4)	0.39 (0.2,0.9)	1.23 (0.5,3.1)	3.24 (1.2,9.1)	7.53 (2.3,24.6)	10.24 (4.0,26.1)	13.34 (5.3,33.5)	24.91 (7.5,82.8)
<b>Income, finer detail</b>								
<\$20,000	1.98 (1.2,3.2)	0.25 (0.1,0.5)	0.76 (0.5,1.2)	2.24 (1.4,3.5)	5.02 (3.1,8.0)	7.76 (4.5,13.3)	10.61 (5.2,21.7)	16.11 (7.9,32.9)
\$20k-\$45k	1.48 (0.9,2.5)	0.18 (0.1,0.3)	0.56 (0.3,0.9)	1.59 (1.0,2.5)	3.74 (2.3,6.2)	5.91 (3.3,10.5)	7.61 (4.2,13.8)	13.38 (5.4,33.4)
\$45k-\$75k	1.22 (0.8,1.9)	0.15 (0.1,0.3)	0.48 (0.3,0.9)	1.37 (0.8,2.4)	3.01 (1.7,5.2)	4.77 (3.0,7.7)	6.41 (4.0,10.3)	10.49 (6.0,18.3)
\$75k+	1.51 (1.0,2.2)	0.18 (0.1,0.4)	0.59 (0.3,1.1)	1.63 (1.0,2.8)	3.71 (2.5,5.5)	5.92 (3.9,9.0)	7.76 (4.9,12.3)	13.70 (6.6,28.6)
>\$20,000	1.89 (0.5,7.0)	0.28 (0.1,0.9)	0.85 (0.3,2.5)	1.92 (0.8,4.5)	4.57 (1.3,16.0)	7.75 (1.4,42.2)	10.09 (1.7,60.3)	13.78 (2.8,68.7)
Inc Ref/DK	2.61 (0.7,10.3)	0.39 (0.2,1.0)	1.13 (0.4,3.2)	2.77 (0.9,8.5)	5.79 (1.7,19.5)	10.08 (2.1,48.7)	13.34 (2.4,73.2)	26.62 (2.1,335.4)
Inc missing	3.14 (0.9,11.0)	0.39 (0.1,1.3)	1.56 (0.3,7.5)	3.87 (0.9,17.1)	9.01 (1.8,44.7)	10.48 (2.6,42.0)	13.38 (3.3,53.9)	20.78 (5.5,77.8)
<b>Race/Ethnicity</b>								
Mexican American	1.67 (1.1,2.5)	0.24 (0.1,0.6)	0.70 (0.4,1.3)	1.86 (1.1,3.1)	3.94 (2.5,6.2)	6.25 (4.0,9.8)	8.29 (5.2,13.3)	14.11 (7.4,26.8)
Other Hispanic	1.64 (0.9,3.2)	0.21 (0.1,0.4)	0.70 (0.4,1.3)	2.09 (1.0,4.3)	4.34 (2.1,9.1)	6.25 (3.1,12.8)	7.70 (3.9,15.3)	11.13 (5.7,21.9)
White	1.17 (0.8,1.8)	0.14 (0.1,0.3)	0.44 (0.2,0.8)	1.26 (0.8,2.0)	2.81 (1.9,4.2)	4.47 (2.9,6.8)	6.09 (3.7,9.9)	10.98 (5.3,22.8)
Black	2.16 (1.5,3.1)	0.36 (0.2,0.7)	1.03 (0.6,1.8)	2.60 (1.7,3.9)	5.30 (3.7,7.6)	7.92 (5.4,11.6)	10.40 (6.7,16.2)	15.11 (9.4,24.2)
Other race	3.52 (1.6,7.9)	0.57 (0.3,1.2)	1.77 (1.0,3.3)	4.46 (2.3,8.7)	8.74 (3.9,19.8)	12.58 (4.9,32.3)	15.27 (5.8,40.1)	26.16 (5.5,124.2)

Table C-42. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.89 (0.5,1.5)	0.11 (0.0,0.3)	0.33 (0.2,0.7)	0.99 (0.6,1.7)	2.32 (1.4,3.9)	3.39 (1.9,6.0)	4.59 (2.7,7.7)	7.35 (4.1,13.2)
Northeast	1.79 (1.1,3.0)	0.24 (0.1,0.4)	0.72 (0.4,1.2)	2.02 (1.3,3.1)	4.33 (2.7,6.8)	6.86 (3.8,12.5)	9.54 (4.1,22.3)	15.41 (5.1,46.9)
South	1.93 (1.2,3.1)	0.25 (0.1,0.5)	0.78 (0.4,1.4)	2.12 (1.3,3.5)	4.81 (3.0,7.7)	7.57 (4.4,12.9)	10.12 (5.5,18.6)	16.43 (8.0,33.8)
West	1.67 (1.0,2.8)	0.21 (0.1,0.5)	0.68 (0.4,1.2)	1.81 (1.1,3.0)	4.21 (2.5,7.1)	6.58 (3.5,12.4)	8.87 (4.0,19.4)	14.74 (5.3,41.0)
<b>Coastal Status</b>								
Noncoastal	1.21 (0.8,1.8)	0.15 (0.1,0.3)	0.49 (0.3,0.9)	1.35 (0.8,2.2)	3.02 (2.0,4.6)	4.73 (3.1,7.2)	6.13 (3.9,9.6)	10.59 (5.3,21.3)
Coastal	2.18 (1.4,3.3)	0.28 (0.1,0.5)	0.87 (0.5,1.4)	2.46 (1.6,3.7)	5.52 (3.5,8.6)	8.53 (5.1,14.3)	11.23 (6.3,20.0)	17.74 (9.0,34.8)
<b>Coastal/Inland Region</b>								
Pacific	1.91 (1.0,3.8)	0.22 (0.1,0.5)	0.73 (0.4,1.4)	2.09 (1.2,3.8)	4.86 (2.4,9.9)	7.66 (3.3,17.8)	9.98 (4.0,24.6)	16.64 (5.5,50.0)
Atlantic	1.99 (1.3,3.1)	0.29 (0.1,0.7)	0.87 (0.4,1.7)	2.25 (1.3,4.0)	4.74 (3.0,7.5)	7.31 (4.6,11.5)	9.87 (5.4,18.0)	16.43 (6.6,40.8)
Gulf of Mexico	3.98 (1.9,8.6)	0.69 (0.2,1.9)	2.03 (0.7,5.6)	5.06 (2.1,12.0)	9.76 (4.6,20.6)	13.74 (7.1,26.6)	16.62 (8.7,31.9)	28.63 (11.3,72.5)
Great Lakes	1.37 (0.8,2.3)	0.19 (0.1,0.4)	0.53 (0.2,1.2)	1.59 (0.9,2.8)	3.31 (1.9,5.9)	5.35 (3.2,8.8)	7.03 (4.0,12.3)	11.28 (6.2,20.4)
Inland Northeast	1.46 (0.9,2.3)	0.19 (0.1,0.4)	0.57 (0.2,1.3)	1.68 (1.0,2.9)	3.69 (2.3,6.0)	5.77 (3.3,10.1)	7.76 (4.1,14.9)	13.00 (4.9,34.5)
Inland Midwest	0.74 (0.5,1.2)	0.09 (0.0,0.2)	0.29 (0.2,0.5)	0.87 (0.5,1.4)	1.95 (1.2,3.3)	2.94 (1.7,5.0)	3.72 (2.2,6.3)	5.76 (3.4,9.9)
Inland South	1.36 (0.9,2.1)	0.20 (0.1,0.4)	0.58 (0.3,1.0)	1.56 (0.9,2.6)	3.33 (2.1,5.3)	5.15 (3.2,8.4)	6.88 (3.9,12.0)	11.57 (5.0,26.6)
Inland West	1.47 (0.8,2.6)	0.21 (0.1,0.5)	0.66 (0.3,1.3)	1.62 (0.8,3.2)	3.70 (2.1,6.6)	5.62 (3.1,10.2)	7.15 (3.9,13.2)	12.58 (4.7,33.4)

Table C-43. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	1.71 (1.1,2.6)	0.15 (0.1,0.3)	0.54 (0.3,1.0)	1.65 (1.0,2.9)	4.09 (2.5,6.6)	6.78 (4.2,10.8)	9.48 (6.1,14.8)	18.05 (11.7,27.8)
<b>Gender</b>								
Female	1.34 (0.8,2.3)	0.12 (0.1,0.2)	0.44 (0.2,0.9)	1.33 (0.7,2.4)	3.22 (1.8,5.8)	5.30 (3.0,9.4)	7.30 (4.1,12.9)	13.68 (8.2,22.7)
Male	2.16 (1.4,3.3)	0.19 (0.1,0.4)	0.70 (0.4,1.3)	2.10 (1.3,3.5)	5.08 (3.2,8.1)	8.52 (5.6,13.1)	12.09 (8.0,18.2)	23.01 (14.0,37.8)
<b>Age</b>								
1 to <3 yrs	0.39 (0.2,0.7)	0.03 (0.0,0.1)	0.11 (0.0,0.2)	0.34 (0.2,0.7)	0.95 (0.5,1.8)	1.64 (0.9,3.0)	2.32 (1.3,4.3)	4.38 (2.3,8.3)
3 to <6 yrs	0.48 (0.2,1.1)	0.04 (0.0,0.1)	0.13 (0.0,0.4)	0.41 (0.2,0.9)	1.13 (0.5,2.6)	2.09 (0.8,5.4)	3.06 (1.1,8.8)	5.37 (2.1,13.9)
6 to <11 yrs	0.67 (0.3,1.6)	0.05 (0.0,0.2)	0.19 (0.1,0.5)	0.60 (0.2,1.6)	1.56 (0.6,4.0)	2.61 (1.0,7.0)	3.66 (1.4,9.8)	6.75 (2.5,18.6)
11 to <16 yrs	0.87 (0.4,1.7)	0.06 (0.0,0.1)	0.21 (0.1,0.4)	0.69 (0.4,1.2)	2.01 (1.0,3.9)	3.54 (1.7,7.4)	5.07 (2.4,10.9)	10.09 (3.9,26.3)
16 to <18 yrs	0.62 (0.1,3.5)	0.06 (0.0,0.3)	0.19 (0.0,1.0)	0.59 (0.1,3.4)	1.55 (0.3,7.9)	2.55 (0.5,14.2)	3.60 (0.7,19.4)	5.98 (0.8,45.5)
18 to <21 yrs	0.66 (0.2,2.1)	0.05 (0.0,0.2)	0.21 (0.1,0.6)	0.64 (0.2,1.9)	1.62 (0.5,4.8)	2.91 (1.1,7.6)	3.65 (1.1,12.7)	6.19 (1.4,27.9)
21 to <35 yrs	1.82 (1.2,2.8)	0.19 (0.1,0.4)	0.59 (0.3,1.0)	1.69 (1.1,2.7)	4.21 (2.7,6.5)	7.01 (4.5,10.9)	10.19 (6.2,16.8)	18.43 (10.4,32.8)
35 to <50 yrs	1.77 (1.0,3.2)	0.22 (0.1,0.5)	0.69 (0.3,1.4)	1.78 (0.9,3.7)	4.19 (2.2,7.8)	6.69 (3.6,12.6)	9.28 (5.2,16.5)	16.62 (9.5,29.0)
50 to <65 yrs	3.05 (1.9,4.8)	0.48 (0.2,1.0)	1.28 (0.7,2.4)	3.26 (2.0,5.4)	7.09 (4.4,11.3)	11.79 (7.3,18.9)	15.98 (9.6,26.7)	26.88 (15.5,46.7)
65+ yrs	2.17 (1.1,4.2)	0.32 (0.1,0.8)	0.91 (0.4,2.1)	2.33 (1.1,4.9)	5.05 (2.5,10.3)	7.89 (3.8,16.3)	10.66 (5.2,21.7)	19.39 (10.7,35.2)
<b>Income</b>								
<\$20,000	1.88 (1.3,2.8)	0.16 (0.1,0.3)	0.56 (0.3,0.9)	1.81 (1.2,2.8)	4.62 (3.0,7.0)	7.61 (5.1,11.4)	10.94 (7.0,17.1)	19.60 (12.1,31.7)
>\$20,000	1.65 (1.0,2.7)	0.14 (0.1,0.3)	0.53 (0.3,1.1)	1.60 (0.9,3.0)	3.93 (2.3,6.9)	6.51 (3.8,11.1)	9.03 (5.4,15.1)	17.55 (11.2,27.4)
Income unknown	2.37 (1.3,4.2)	0.22 (0.1,0.5)	0.73 (0.3,1.5)	2.27 (1.2,4.3)	5.72 (3.3,10.0)	9.30 (5.0,17.2)	12.82 (6.8,24.3)	23.98 (12.3,46.7)
<b>Income, finer detail</b>								
<\$20,000	1.88 (1.3,2.8)	0.16 (0.1,0.3)	0.56 (0.3,0.9)	1.81 (1.2,2.8)	4.62 (3.0,7.0)	7.61 (5.1,11.4)	10.94 (7.0,17.1)	19.60 (12.1,31.7)
\$20k-\$45k	1.42 (0.6,3.2)	0.13 (0.1,0.3)	0.47 (0.2,1.1)	1.37 (0.5,3.4)	3.39 (1.4,8.0)	5.44 (2.1,14.0)	7.70 (3.3,18.2)	14.49 (6.8,30.8)
\$45k-\$75k	1.41 (0.8,2.5)	0.12 (0.0,0.3)	0.44 (0.2,1.0)	1.37 (0.7,2.8)	3.31 (1.6,6.6)	5.38 (2.6,11.1)	7.54 (3.9,14.6)	14.39 (8.3,24.9)
\$75k+	1.98 (1.3,3.0)	0.18 (0.1,0.4)	0.65 (0.3,1.2)	1.94 (1.2,3.3)	4.75 (3.1,7.3)	7.87 (5.1,12.0)	11.33 (7.3,17.7)	20.82 (11.8,36.7)
>\$20,000	2.04 (0.8,4.9)	0.21 (0.1,0.6)	0.71 (0.3,1.7)	2.11 (0.9,5.1)	4.86 (2.1,11.5)	8.29 (3.2,21.7)	10.72 (4.3,27.0)	18.38 (6.8,49.8)
Inc Ref/DK	1.93 (0.8,4.4)	0.21 (0.1,0.5)	0.68 (0.3,1.7)	2.07 (0.9,4.6)	4.55 (1.8,11.7)	7.62 (3.1,18.9)	10.41 (4.3,25.3)	18.78 (8.1,43.8)
Inc missing	3.23 (0.8,12.4)	0.27 (0.0,1.6)	0.83 (0.2,3.4)	2.85 (0.7,11.4)	7.37 (2.2,24.9)	13.17 (3.6,47.9)	19.71 (4.9,80.0)	36.08 (7.6,170.5)
<b>Race/Ethnicity</b>								
Mexican American	1.60 (0.9,2.8)	0.14 (0.1,0.3)	0.49 (0.3,0.9)	1.55 (0.9,2.8)	3.91 (2.2,7.0)	6.57 (3.7,11.7)	9.28 (5.2,16.5)	16.33 (8.5,31.3)
Other Hispanic	1.54 (0.7,3.5)	0.14 (0.0,0.5)	0.52 (0.2,1.4)	1.59 (0.7,3.8)	3.60 (1.5,8.6)	5.98 (2.5,14.1)	8.43 (3.7,19.2)	16.12 (7.0,37.3)
White	1.35 (0.8,2.3)	0.13 (0.1,0.3)	0.45 (0.2,0.9)	1.36 (0.7,2.6)	3.23 (1.8,5.8)	5.32 (3.1,9.1)	7.15 (4.1,12.6)	13.51 (8.5,21.4)
Black	2.35 (1.4,3.9)	0.24 (0.1,0.5)	0.83 (0.4,1.6)	2.38 (1.3,4.5)	5.62 (3.1,10.2)	9.41 (5.7,15.5)	12.76 (7.6,21.3)	23.26 (14.2,38.0)
Other race	4.50 (2.5,8.1)	0.53 (0.2,1.3)	1.73 (0.9,3.3)	4.79 (2.7,8.4)	11.22 (6.2,20.3)	16.84 (9.3,30.6)	22.66 (11.9,43.2)	37.24 (18.4,75.4)

Table C-43. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.29 (0.6,2.8)	0.11 (0.0,0.3)	0.40 (0.1,1.1)	1.21 (0.5,3.2)	3.05 (1.3,7.2)	5.06 (2.2,11.9)	7.03 (3.1,16.1)	13.68 (6.9,27.0)
Northeast	1.48 (1.0,2.3)	0.12 (0.1,0.3)	0.48 (0.2,0.9)	1.51 (0.9,2.5)	3.67 (2.4,5.7)	5.76 (3.6,9.2)	7.69 (4.6,12.9)	15.61 (9.4,26.0)
South	2.09 (1.4,3.1)	0.19 (0.1,0.3)	0.67 (0.4,1.2)	2.00 (1.2,3.4)	4.87 (3.0,8.0)	8.36 (5.5,12.8)	12.09 (8.1,18.0)	22.58 (14.6,35.0)
West	1.75 (1.1,2.9)	0.17 (0.1,0.3)	0.60 (0.3,1.1)	1.72 (1.0,3.1)	4.30 (2.6,7.0)	6.94 (4.2,11.6)	9.51 (5.6,16.2)	16.71 (9.5,29.5)
<b>Coastal Status</b>								
Noncoastal	1.61 (1.0,2.5)	0.14 (0.1,0.3)	0.52 (0.3,0.9)	1.57 (0.9,2.7)	3.85 (2.3,6.3)	6.24 (3.7,10.5)	8.77 (5.3,14.4)	16.79 (10.1,27.9)
Coastal	1.87 (1.2,3.0)	0.16 (0.1,0.3)	0.58 (0.3,1.3)	1.77 (0.9,3.4)	4.44 (2.5,7.7)	7.49 (4.6,12.3)	10.70 (7.0,16.3)	19.74 (13.0,30.0)
<b>Coastal/Inland Region</b>								
Pacific	1.84 (1.0,3.3)	0.15 (0.1,0.4)	0.55 (0.2,1.4)	1.68 (0.8,3.7)	4.31 (2.3,8.2)	7.60 (4.4,13.3)	10.81 (6.1,19.2)	18.25 (9.6,34.6)
Atlantic	1.57 (0.7,3.7)	0.16 (0.1,0.5)	0.55 (0.2,1.6)	1.63 (0.7,4.0)	3.84 (1.6,9.2)	6.23 (2.7,14.5)	8.06 (3.0,21.5)	15.13 (7.0,32.5)
Gulf of Mexico	3.49 (2.1,5.7)	0.36 (0.2,0.8)	1.25 (0.6,2.4)	3.48 (1.8,6.7)	8.51 (5.1,14.2)	14.71 (9.4,23.1)	20.39 (12.8,32.6)	35.04 (18.8,65.3)
Great Lakes	1.19 (0.6,2.2)	0.10 (0.1,0.2)	0.37 (0.2,0.8)	1.12 (0.5,2.5)	2.81 (1.4,5.7)	4.61 (2.3,9.3)	6.69 (3.5,12.8)	12.37 (6.7,22.8)
Inland Northeast	1.32 (0.8,2.3)	0.10 (0.0,0.2)	0.40 (0.2,0.9)	1.29 (0.7,2.5)	3.11 (1.7,5.6)	5.15 (3.0,8.9)	6.79 (3.7,12.4)	13.87 (7.2,26.6)
Inland Midwest	1.31 (0.5,3.3)	0.11 (0.0,0.4)	0.41 (0.1,1.3)	1.23 (0.4,3.8)	3.09 (1.1,8.4)	5.12 (1.9,13.6)	7.13 (2.8,18.4)	13.92 (6.3,30.8)
Inland South	2.00 (1.3,3.0)	0.17 (0.1,0.3)	0.64 (0.4,1.0)	1.92 (1.3,2.9)	4.62 (3.0,7.0)	7.95 (5.2,12.1)	11.64 (6.9,19.7)	21.30 (11.6,39.2)
Inland West	1.65 (0.9,3.1)	0.18 (0.1,0.4)	0.65 (0.3,1.3)	1.78 (0.9,3.3)	4.29 (2.3,7.9)	6.40 (3.3,12.5)	8.48 (4.1,17.4)	13.97 (6.1,31.9)

Table C-44. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	2.14 (1.4,3.3)	0.26 (0.1,0.5)	0.80 (0.4,1.5)	2.16 (1.3,3.7)	4.97 (3.1,8.1)	8.19 (5.3,12.7)	11.53 (7.7,17.3)	20.71 (13.2,32.4)
<b>Gender</b>								
Female	1.64 (1.0,2.8)	0.21 (0.1,0.4)	0.64 (0.3,1.2)	1.71 (1.0,3.1)	3.91 (2.3,6.8)	6.29 (3.7,10.7)	8.52 (4.9,14.7)	15.45 (9.3,25.7)
Male	2.78 (1.8,4.2)	0.35 (0.2,0.7)	1.08 (0.6,2.0)	2.83 (1.7,4.7)	6.44 (4.1,10.1)	10.56 (7.0,16.0)	14.81 (9.7,22.6)	27.06 (15.8,46.3)
<b>Age</b>								
21 to <35 yrs	1.82 (1.2,2.8)	0.19 (0.1,0.4)	0.59 (0.3,1.0)	1.69 (1.1,2.7)	4.21 (2.7,6.5)	7.01 (4.5,10.9)	10.19 (6.2,16.8)	18.43 (10.4,32.8)
35 to <50 yrs	1.77 (1.0,3.2)	0.22 (0.1,0.5)	0.69 (0.3,1.4)	1.78 (0.9,3.7)	4.19 (2.2,7.8)	6.69 (3.6,12.6)	9.28 (5.2,16.5)	16.62 (9.5,29.0)
50 to <65 yrs	3.05 (1.9,4.8)	0.48 (0.2,1.0)	1.28 (0.7,2.4)	3.26 (2.0,5.4)	7.09 (4.4,11.3)	11.79 (7.3,18.9)	15.98 (9.6,26.7)	26.88 (15.5,46.7)
65+ yrs	2.17 (1.1,4.2)	0.32 (0.1,0.8)	0.91 (0.4,2.1)	2.33 (1.1,4.9)	5.05 (2.5,10.3)	7.89 (3.8,16.3)	10.66 (5.2,21.7)	19.39 (10.7,35.2)
<b>WCA (13-49 years)</b>	1.21 (0.7,2.1)	0.12 (0.1,0.2)	0.42 (0.2,0.8)	1.23 (0.7,2.2)	2.91 (1.6,5.3)	4.72 (2.5,8.8)	6.48 (3.5,12.1)	11.63 (6.0,22.6)
<b>Income</b>								
<\$20,000	2.38 (1.6,3.6)	0.26 (0.1,0.5)	0.85 (0.5,1.5)	2.43 (1.5,3.8)	5.74 (3.8,8.7)	9.57 (6.1,15.0)	12.71 (8.2,19.7)	21.80 (13.5,35.1)
>\$20,000	2.06 (1.3,3.3)	0.26 (0.1,0.6)	0.79 (0.4,1.5)	2.08 (1.1,3.9)	4.80 (2.8,8.3)	7.85 (4.8,12.9)	10.95 (7.0,17.2)	19.96 (12.6,31.7)
Income unknown	2.97 (1.7,5.1)	0.37 (0.1,0.9)	1.14 (0.6,2.3)	2.96 (1.6,5.4)	6.94 (4.0,11.9)	10.95 (5.9,20.4)	15.00 (7.9,28.5)	27.05 (13.6,53.8)
<b>Income, finer detail</b>								
<\$20,000	2.38 (1.6,3.6)	0.26 (0.1,0.5)	0.85 (0.5,1.5)	2.43 (1.5,3.8)	5.74 (3.8,8.7)	9.57 (6.1,15.0)	12.71 (8.2,19.7)	21.80 (13.5,35.1)
\$20k-\$45k	1.76 (0.8,3.9)	0.22 (0.1,0.5)	0.67 (0.3,1.6)	1.79 (0.7,4.3)	4.16 (1.8,9.5)	6.55 (2.7,16.1)	9.09 (3.9,20.9)	17.92 (9.9,32.6)
\$45k-\$75k	1.76 (1.0,3.0)	0.20 (0.1,0.5)	0.67 (0.3,1.3)	1.77 (0.9,3.5)	4.07 (2.1,7.8)	6.45 (3.3,12.6)	9.02 (5.0,16.3)	16.20 (9.1,29.0)
\$75k+	2.50 (1.6,3.8)	0.34 (0.2,0.7)	0.99 (0.5,1.8)	2.55 (1.5,4.2)	6.01 (4.0,9.1)	9.48 (6.2,14.6)	13.59 (8.4,22.1)	23.79 (13.3,42.7)
>\$20,000	2.41 (1.0,5.6)	0.29 (0.1,0.8)	0.90 (0.4,2.2)	2.60 (1.1,6.2)	5.59 (2.5,12.4)	9.12 (3.8,22.1)	11.80 (4.9,28.3)	20.13 (7.7,52.3)
Inc Ref/DK	2.38 (1.1,5.3)	0.31 (0.1,0.8)	1.03 (0.5,2.2)	2.69 (1.3,5.6)	6.07 (2.9,12.6)	9.10 (3.7,22.2)	11.73 (4.5,30.5)	22.29 (9.7,51.2)
Inc missing	4.28 (1.0,18.1)	0.50 (0.1,3.5)	1.30 (0.3,5.5)	3.65 (1.1,12.4)	9.76 (2.6,36.2)	16.46 (4.3,63.6)	23.98 (5.1,111.8)	42.98 (7.5,245.0)
<b>Race/Ethnicity</b>								
Mexican American	2.24 (1.3,3.8)	0.29 (0.2,0.5)	0.87 (0.5,1.5)	2.34 (1.4,4.0)	5.31 (3.0,9.5)	8.80 (5.0,15.4)	12.05 (6.9,21.0)	20.34 (10.9,38.1)
Other Hispanic	2.09 (0.9,4.7)	0.30 (0.1,0.9)	0.87 (0.3,2.2)	2.15 (0.9,5.1)	4.65 (1.9,11.4)	7.85 (3.5,17.7)	10.68 (4.8,23.6)	20.41 (8.0,51.9)
White	1.66 (1.0,2.7)	0.22 (0.1,0.5)	0.66 (0.3,1.3)	1.74 (0.9,3.2)	3.92 (2.2,6.8)	6.18 (3.6,10.6)	8.38 (5.0,14.1)	15.63 (10.0,24.4)
Black	3.04 (1.8,5.0)	0.44 (0.2,0.9)	1.29 (0.7,2.4)	3.31 (1.9,5.8)	7.14 (4.1,12.6)	11.61 (7.2,18.8)	15.67 (9.7,25.4)	26.57 (15.7,45.1)
Other race	5.76 (3.3,10.2)	0.91 (0.4,2.0)	2.56 (1.4,4.8)	6.32 (3.7,10.9)	13.80 (7.8,24.5)	19.74 (10.8,36.2)	26.36 (14.0,49.6)	51.03 (20.3,128.5)

Table C-44. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.63 (0.7,3.6)	0.20 (0.1,0.6)	0.61 (0.2,1.6)	1.63 (0.6,4.2)	3.83 (1.7,8.9)	6.13 (2.6,14.2)	8.65 (4.1,18.2)	15.80 (7.9,31.4)
Northeast	1.87 (1.2,2.9)	0.21 (0.1,0.5)	0.70 (0.4,1.4)	1.97 (1.2,3.3)	4.53 (2.9,7.0)	6.94 (4.4,10.9)	9.53 (6.1,14.8)	19.43 (9.8,38.7)
South	2.59 (1.7,3.9)	0.31 (0.2,0.6)	0.98 (0.6,1.7)	2.58 (1.5,4.4)	6.11 (4.0,9.4)	10.15 (6.8,15.2)	14.10 (9.5,21.0)	25.87 (16.6,40.4)
West	2.20 (1.4,3.5)	0.29 (0.1,0.6)	0.87 (0.5,1.6)	2.28 (1.3,3.9)	5.21 (3.2,8.5)	8.38 (5.1,13.8)	11.36 (6.8,19.1)	18.43 (9.9,34.2)
<b>Coastal Status</b>								
Noncoastal	2.02 (1.3,3.2)	0.25 (0.1,0.5)	0.77 (0.4,1.4)	2.08 (1.2,3.5)	4.74 (2.9,7.7)	7.66 (4.7,12.4)	10.61 (6.6,17.1)	19.66 (11.6,33.3)
Coastal	2.33 (1.5,3.7)	0.28 (0.1,0.6)	0.86 (0.4,1.8)	2.30 (1.2,4.4)	5.52 (3.4,9.1)	9.03 (5.8,14.1)	12.76 (8.6,18.9)	22.35 (14.6,34.3)
<b>Coastal/Inland Region</b>								
Pacific	2.28 (1.3,4.0)	0.26 (0.1,0.6)	0.81 (0.4,1.8)	2.18 (1.1,4.5)	5.29 (2.9,9.7)	9.05 (5.2,15.8)	12.67 (6.9,23.2)	20.66 (10.9,39.0)
Atlantic	1.94 (0.9,4.4)	0.26 (0.1,0.8)	0.80 (0.3,2.1)	2.11 (0.9,5.0)	4.59 (1.9,11.0)	7.17 (2.9,17.6)	9.72 (4.1,23.0)	17.78 (9.2,34.2)
Gulf of Mexico	4.38 (2.7,7.0)	0.63 (0.3,1.3)	1.80 (0.9,3.5)	4.76 (2.8,8.1)	10.74 (6.9,16.8)	16.98 (10.7,26.9)	23.32 (14.2,38.3)	42.52 (21.3,85.0)
Great Lakes	1.52 (0.8,2.8)	0.20 (0.1,0.4)	0.57 (0.2,1.3)	1.49 (0.7,3.4)	3.71 (2.0,6.8)	5.93 (3.2,10.9)	8.34 (4.7,14.9)	14.84 (8.1,27.1)
Inland Northeast	1.67 (1.0,2.9)	0.17 (0.1,0.4)	0.59 (0.3,1.3)	1.68 (0.9,3.2)	3.95 (2.3,6.8)	6.15 (3.5,10.8)	8.50 (4.9,14.8)	20.29 (5.9,69.7)
Inland Midwest	1.65 (0.7,4.1)	0.20 (0.1,0.6)	0.62 (0.2,1.9)	1.67 (0.6,4.7)	3.85 (1.5,10.2)	6.14 (2.3,16.4)	8.70 (3.6,20.9)	15.81 (6.8,36.5)
Inland South	2.50 (1.6,3.8)	0.31 (0.2,0.5)	0.95 (0.6,1.5)	2.52 (1.7,3.8)	5.68 (3.7,8.7)	9.66 (6.2,15.1)	13.66 (8.0,23.2)	23.79 (13.6,41.6)
Inland West	2.12 (1.1,3.9)	0.34 (0.2,0.7)	0.93 (0.5,1.8)	2.42 (1.3,4.5)	5.15 (2.8,9.4)	7.72 (4.0,15.0)	9.96 (4.9,20.4)	15.98 (6.9,37.3)

Table C-45. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	0.64 (0.4,1.1)	0.05 (0.0,0.1)	0.17 (0.1,0.3)	0.55 (0.3,1.1)	1.51 (0.8,2.7)	2.66 (1.5,4.7)	3.66 (1.9,6.9)	6.83 (3.4,13.6)
<b>Gender</b>								
Female	0.52 (0.3,0.9)	0.04 (0.0,0.1)	0.13 (0.1,0.3)	0.44 (0.2,0.9)	1.24 (0.7,2.2)	2.10 (1.1,3.9)	3.02 (1.6,5.7)	5.75 (2.9,11.3)
Male	0.77 (0.4,1.4)	0.07 (0.0,0.1)	0.22 (0.1,0.4)	0.70 (0.4,1.3)	1.84 (1.0,3.3)	3.15 (1.8,5.6)	4.22 (2.1,8.4)	7.68 (3.6,16.4)
<b>Age</b>								
1 to <3 yrs	0.39 (0.2,0.7)	0.03 (0.0,0.1)	0.11 (0.0,0.2)	0.34 (0.2,0.7)	0.95 (0.5,1.8)	1.64 (0.9,3.0)	2.32 (1.3,4.3)	4.38 (2.3,8.3)
3 to <6 yrs	0.48 (0.2,1.1)	0.04 (0.0,0.1)	0.13 (0.0,0.4)	0.41 (0.2,0.9)	1.13 (0.5,2.6)	2.09 (0.8,5.4)	3.06 (1.1,8.8)	5.37 (2.1,13.9)
6 to <11 yrs	0.67 (0.3,1.6)	0.05 (0.0,0.2)	0.19 (0.1,0.5)	0.60 (0.2,1.6)	1.56 (0.6,4.0)	2.61 (1.0,7.0)	3.66 (1.4,9.8)	6.75 (2.5,18.6)
11 to <16 yrs	0.87 (0.4,1.7)	0.06 (0.0,0.1)	0.21 (0.1,0.4)	0.69 (0.4,1.2)	2.01 (1.0,3.9)	3.54 (1.7,7.4)	5.07 (2.4,10.9)	10.09 (3.9,26.3)
16 to <18 yrs	0.62 (0.1,3.5)	0.06 (0.0,0.3)	0.19 (0.0,1.0)	0.59 (0.1,3.4)	1.55 (0.3,7.9)	2.55 (0.5,14.2)	3.60 (0.7,19.4)	5.98 (0.8,45.5)
18 to <21 yrs	0.66 (0.2,2.1)	0.05 (0.0,0.2)	0.21 (0.1,0.6)	0.64 (0.2,1.9)	1.62 (0.5,4.8)	2.91 (1.1,7.6)	3.65 (1.1,12.7)	6.19 (1.4,27.9)
<b>Income</b>								
<\$20,000	0.86 (0.6,1.3)	0.07 (0.0,0.1)	0.23 (0.1,0.4)	0.70 (0.4,1.2)	1.90 (1.2,3.1)	3.34 (2.1,5.4)	4.95 (3.0,8.0)	10.20 (5.6,18.6)
>\$20,000	0.57 (0.3,1.1)	0.04 (0.0,0.1)	0.16 (0.1,0.3)	0.52 (0.2,1.1)	1.37 (0.7,2.8)	2.45 (1.3,4.5)	3.38 (1.7,6.6)	5.84 (2.4,14.2)
Income unknown	1.02 (0.4,2.4)	0.09 (0.0,0.2)	0.26 (0.1,0.7)	0.92 (0.4,2.1)	2.84 (1.2,6.7)	4.95 (2.1,11.8)	6.30 (2.5,16.1)	10.76 (3.0,38.8)
<b>Income, finer detail</b>								
<\$20,000	0.86 (0.6,1.3)	0.07 (0.0,0.1)	0.23 (0.1,0.4)	0.70 (0.4,1.2)	1.90 (1.2,3.1)	3.34 (2.1,5.4)	4.95 (3.0,8.0)	10.20 (5.6,18.6)
\$20k-\$45k	0.54 (0.2,1.5)	0.04 (0.0,0.1)	0.15 (0.1,0.4)	0.51 (0.2,1.3)	1.32 (0.5,3.4)	2.32 (0.9,5.9)	3.16 (1.1,9.0)	5.64 (1.8,18.2)
\$45k-\$75k	0.45 (0.2,1.1)	0.03 (0.0,0.1)	0.13 (0.1,0.3)	0.40 (0.2,1.1)	1.06 (0.4,2.8)	1.81 (0.7,4.9)	2.53 (0.9,6.9)	5.10 (2.2,11.6)
\$75k+	0.66 (0.4,1.1)	0.05 (0.0,0.1)	0.18 (0.1,0.4)	0.57 (0.3,1.1)	1.60 (0.9,2.7)	2.93 (1.8,4.8)	3.77 (2.1,6.8)	6.59 (3.1,14.1)
>\$20,000	0.83 (0.3,2.1)	0.08 (0.0,0.3)	0.29 (0.1,0.9)	0.84 (0.3,2.3)	1.86 (0.8,4.2)	3.23 (1.4,7.6)	4.11 (1.7,10.1)	9.60 (2.0,46.6)
Inc Ref/DK	0.70 (0.2,2.1)	0.07 (0.0,0.2)	0.22 (0.1,0.8)	0.71 (0.2,2.2)	1.75 (0.6,5.5)	3.50 (1.4,8.9)	4.27 (1.5,11.9)	6.53 (1.6,27.0)
Inc missing	1.45 (0.4,5.8)	0.11 (0.0,0.6)	0.34 (0.1,1.4)	1.34 (0.3,6.8)	3.98 (0.7,21.5)	6.58 (1.3,33.3)	9.30 (2.0,43.2)	16.43 (3.3,80.9)
<b>Race/Ethnicity</b>								
Mexican American	0.61 (0.3,1.5)	0.06 (0.0,0.1)	0.20 (0.1,0.4)	0.60 (0.3,1.3)	1.53 (0.7,3.4)	2.56 (1.1,6.0)	3.47 (1.4,8.7)	5.99 (2.0,18.1)
Other Hispanic	0.53 (0.2,1.3)	0.05 (0.0,0.2)	0.17 (0.1,0.5)	0.53 (0.2,1.3)	1.52 (0.6,3.6)	2.23 (0.9,5.4)	3.12 (1.3,7.7)	4.87 (1.5,15.9)
White	0.43 (0.2,0.8)	0.04 (0.0,0.1)	0.12 (0.1,0.3)	0.39 (0.2,0.8)	1.03 (0.5,2.1)	1.73 (0.8,3.6)	2.59 (1.4,4.7)	4.56 (2.1,9.7)
Black	0.97 (0.5,1.9)	0.10 (0.0,0.2)	0.31 (0.1,0.7)	0.91 (0.4,2.0)	2.20 (1.0,4.8)	3.68 (1.7,8.0)	5.18 (2.5,10.8)	9.79 (4.9,19.6)
Other race	1.80 (0.9,3.6)	0.19 (0.1,0.6)	0.64 (0.3,1.5)	1.94 (0.9,4.0)	4.29 (2.3,8.1)	7.32 (3.7,14.5)	9.60 (4.7,19.4)	19.88 (7.2,54.9)

Table C-45. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.41 (0.1,1.5)	0.03 (0.0,0.1)	0.11 (0.0,0.4)	0.36 (0.1,1.4)	0.98 (0.3,3.7)	1.68 (0.4,6.6)	2.58 (0.8,8.1)	4.27 (0.9,20.5)
Northeast	0.49 (0.2,0.9)	0.04 (0.0,0.1)	0.15 (0.1,0.3)	0.49 (0.3,0.9)	1.26 (0.7,2.2)	2.02 (1.0,3.9)	2.82 (1.4,5.8)	4.77 (1.9,11.7)
South	0.82 (0.5,1.4)	0.07 (0.0,0.1)	0.22 (0.1,0.4)	0.69 (0.4,1.3)	1.89 (1.1,3.3)	3.27 (1.9,5.8)	4.55 (2.5,8.3)	9.10 (5.1,16.2)
West	0.71 (0.4,1.3)	0.06 (0.0,0.1)	0.20 (0.1,0.4)	0.66 (0.4,1.2)	1.69 (0.9,3.1)	2.94 (1.6,5.3)	4.24 (2.4,7.6)	7.63 (3.8,15.5)
<b>Coastal Status</b>								
Noncoastal	0.58 (0.3,1.1)	0.05 (0.0,0.1)	0.16 (0.1,0.3)	0.52 (0.3,1.0)	1.39 (0.8,2.5)	2.44 (1.4,4.4)	3.40 (1.9,6.3)	6.03 (2.9,12.7)
Coastal	0.74 (0.4,1.4)	0.05 (0.0,0.1)	0.20 (0.1,0.4)	0.62 (0.3,1.3)	1.68 (0.8,3.4)	3.02 (1.6,5.8)	4.27 (2.2,8.4)	8.03 (3.9,16.6)
<b>Coastal/Inland Region</b>								
Pacific	0.71 (0.3,1.5)	0.05 (0.0,0.1)	0.17 (0.1,0.5)	0.56 (0.2,1.6)	1.58 (0.7,3.8)	3.02 (1.5,6.2)	4.71 (2.3,9.4)	8.21 (3.5,19.1)
Atlantic	0.55 (0.2,1.5)	0.05 (0.0,0.1)	0.18 (0.1,0.4)	0.55 (0.2,1.4)	1.42 (0.6,3.3)	2.27 (0.9,6.0)	3.24 (1.3,8.1)	4.99 (1.2,20.4)
Gulf of Mexico	1.53 (0.8,2.8)	0.15 (0.1,0.3)	0.44 (0.2,1.0)	1.38 (0.6,3.0)	3.37 (1.5,7.8)	5.92 (2.8,12.7)	8.59 (4.5,16.5)	20.93 (7.8,56.0)
Great Lakes	0.45 (0.1,1.4)	0.04 (0.0,0.1)	0.13 (0.1,0.3)	0.40 (0.1,1.1)	1.06 (0.3,3.2)	2.01 (0.8,5.2)	2.86 (1.1,7.7)	4.33 (0.8,23.5)
Inland Northeast	0.41 (0.2,0.9)	0.04 (0.0,0.1)	0.12 (0.1,0.3)	0.39 (0.2,0.9)	1.08 (0.5,2.2)	1.77 (0.8,3.8)	2.51 (1.1,5.5)	4.00 (1.4,11.2)
Inland Midwest	0.40 (0.1,1.6)	0.03 (0.0,0.1)	0.11 (0.0,0.4)	0.35 (0.1,1.5)	0.95 (0.2,3.9)	1.61 (0.4,7.0)	2.49 (0.7,8.4)	4.22 (0.9,19.4)
Inland South	0.72 (0.4,1.2)	0.06 (0.0,0.1)	0.20 (0.1,0.4)	0.63 (0.4,1.1)	1.72 (1.0,2.8)	3.04 (1.8,5.2)	4.14 (2.3,7.4)	7.59 (3.8,15.0)
Inland West	0.72 (0.4,1.4)	0.07 (0.0,0.1)	0.24 (0.1,0.5)	0.71 (0.4,1.4)	1.79 (0.9,3.5)	2.91 (1.4,5.8)	3.93 (1.9,8.3)	7.29 (3.1,16.9)

Table C-46. Trophic level 2 marine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	0.86 (0.4,1.7)	0.10 (0.1,0.2)	0.35 (0.2,0.6)	0.99 (0.6,1.6)	2.26 (1.3,3.9)	3.43 (1.6,7.3)	4.51 (1.9,10.5)	6.96 (2.1,22.9)
<b>Gender</b>								
Female	0.67 (0.4,1.2)	0.08 (0.0,0.2)	0.29 (0.2,0.5)	0.80 (0.5,1.3)	1.74 (1.0,2.9)	2.64 (1.4,5.0)	3.33 (1.5,7.3)	5.12 (1.8,15.0)
Male	1.10 (0.5,2.3)	0.14 (0.1,0.3)	0.46 (0.3,0.8)	1.28 (0.8,2.2)	2.86 (1.4,5.7)	4.45 (2.0,9.9)	5.77 (2.3,14.3)	8.62 (2.4,30.9)
<b>Age</b>								
1 to <3 yrs	0.17 (0.1,0.5)	0.02 (0.0,0.1)	0.06 (0.0,0.2)	0.17 (0.1,0.6)	0.44 (0.1,1.5)	0.75 (0.2,2.6)	1.02 (0.3,3.4)	1.77 (0.5,6.0)
3 to <6 yrs	0.31 (0.1,0.7)	0.04 (0.0,0.1)	0.12 (0.1,0.3)	0.37 (0.2,0.8)	0.82 (0.4,1.7)	1.20 (0.5,3.0)	1.60 (0.6,4.4)	2.54 (0.7,9.6)
6 to <11 yrs	0.34 (0.1,0.8)	0.04 (0.0,0.1)	0.12 (0.0,0.4)	0.35 (0.1,1.0)	0.86 (0.4,2.1)	1.48 (0.6,3.7)	1.88 (0.8,4.3)	3.37 (1.4,8.0)
11 to <16 yrs	0.34 (0.1,2.3)	0.04 (0.0,0.2)	0.12 (0.0,0.7)	0.35 (0.1,2.1)	0.85 (0.1,5.7)	1.37 (0.2,10.1)	1.92 (0.3,13.3)	3.08 (0.3,27.2)
16 to <18 yrs	0.56 (0.2,1.3)	0.06 (0.0,0.2)	0.20 (0.1,0.4)	0.62 (0.3,1.2)	1.51 (0.7,3.1)	2.32 (1.0,5.4)	2.94 (1.0,8.3)	4.63 (1.2,18.4)
18 to <21 yrs	0.74 (0.3,1.7)	0.07 (0.0,0.2)	0.25 (0.1,0.7)	0.80 (0.3,2.3)	1.87 (0.8,4.4)	2.94 (1.3,6.6)	3.88 (1.7,8.9)	6.75 (2.6,17.8)
21 to <35 yrs	0.93 (0.6,1.5)	0.14 (0.1,0.4)	0.44 (0.2,0.9)	1.13 (0.7,1.9)	2.39 (1.6,3.7)	3.63 (2.2,6.1)	4.50 (2.3,8.8)	6.74 (2.4,19.0)
35 to <50 yrs	1.00 (0.5,2.2)	0.17 (0.1,0.3)	0.48 (0.3,0.8)	1.21 (0.7,2.1)	2.50 (1.2,5.3)	3.82 (1.6,9.1)	4.98 (2.0,12.5)	7.37 (2.1,26.4)
50 to <65 yrs	1.35 (0.6,3.0)	0.25 (0.1,0.5)	0.69 (0.4,1.2)	1.67 (0.9,3.0)	3.28 (1.4,7.6)	5.11 (2.2,12.1)	6.48 (2.4,17.2)	8.92 (2.0,39.6)
65+ yrs	0.91 (0.4,2.1)	0.14 (0.1,0.3)	0.41 (0.2,0.7)	1.07 (0.6,2.0)	2.33 (1.1,4.9)	3.43 (1.3,9.0)	4.56 (1.7,12.6)	6.83 (1.8,26.6)
<b>Income</b>								
<\$20,000	0.65 (0.3,1.3)	0.07 (0.0,0.1)	0.24 (0.1,0.4)	0.70 (0.4,1.2)	1.65 (0.9,3.2)	2.62 (1.2,5.8)	3.61 (1.6,8.1)	5.84 (2.0,16.6)
>\$20,000	0.89 (0.4,1.8)	0.11 (0.1,0.2)	0.37 (0.2,0.6)	1.03 (0.7,1.6)	2.31 (1.3,4.2)	3.50 (1.6,7.7)	4.57 (1.9,11.2)	6.98 (2.0,24.4)
Income unknown	1.36 (0.7,2.5)	0.18 (0.0,0.8)	0.62 (0.2,2.3)	1.79 (0.6,5.3)	3.50 (1.9,6.5)	5.67 (3.0,10.8)	6.66 (3.4,13.2)	8.92 (2.5,31.2)
<b>Income, finer detail</b>								
<\$20,000	0.65 (0.3,1.3)	0.07 (0.0,0.1)	0.24 (0.1,0.4)	0.70 (0.4,1.2)	1.65 (0.9,3.2)	2.62 (1.2,5.8)	3.61 (1.6,8.1)	5.84 (2.0,16.6)
\$20k-\$45k	0.81 (0.4,1.5)	0.10 (0.0,0.3)	0.33 (0.1,0.9)	0.93 (0.4,2.1)	2.08 (1.1,3.9)	3.16 (1.8,5.5)	4.22 (2.3,7.6)	6.60 (3.2,13.5)
\$45k-\$75k	0.83 (0.3,2.0)	0.10 (0.0,0.2)	0.34 (0.2,0.6)	0.95 (0.5,1.8)	2.15 (1.0,4.7)	3.42 (1.4,8.1)	4.41 (1.6,12.1)	6.68 (1.7,26.8)
\$75k+	1.01 (0.4,2.7)	0.14 (0.1,0.2)	0.46 (0.3,0.8)	1.21 (0.6,2.4)	2.65 (1.1,6.3)	3.84 (1.2,12.0)	4.99 (1.5,16.8)	7.85 (1.9,32.3)
>\$20,000	0.54 (0.2,1.7)	0.09 (0.0,0.2)	0.25 (0.1,0.7)	0.65 (0.2,1.8)	1.44 (0.5,4.0)	2.05 (0.6,7.0)	2.51 (0.6,10.5)	3.36 (0.4,25.9)
Inc Ref/DK	1.54 (0.8,2.9)	0.22 (0.1,0.7)	0.72 (0.3,2.1)	1.98 (0.9,4.6)	4.03 (2.2,7.4)	6.09 (3.1,11.9)	7.37 (3.5,15.5)	10.11 (2.9,35.2)
Inc missing	1.00 (0.2,4.7)	0.12 (0.0,1.0)	0.41 (0.1,3.4)	1.34 (0.2,11.3)	2.67 (0.5,14.0)	3.69 (0.9,14.7)	4.57 (1.2,17.5)	7.10 (1.7,29.5)
<b>Race/Ethnicity</b>								
Mexican American	0.82 (0.5,1.4)	0.10 (0.0,0.2)	0.33 (0.2,0.6)	0.94 (0.6,1.5)	2.12 (1.3,3.5)	3.22 (1.7,6.1)	4.37 (2.2,8.6)	6.92 (2.8,17.0)
Other Hispanic	0.82 (0.4,1.6)	0.10 (0.0,0.4)	0.37 (0.1,1.1)	0.96 (0.5,1.9)	2.17 (1.2,4.0)	3.08 (1.5,6.5)	3.97 (1.7,9.2)	6.09 (2.0,18.9)
White	0.83 (0.4,1.9)	0.10 (0.1,0.2)	0.34 (0.2,0.6)	0.95 (0.5,1.7)	2.15 (1.0,4.6)	3.27 (1.2,8.8)	4.37 (1.5,12.4)	6.87 (1.8,26.6)
Black	0.68 (0.4,1.1)	0.09 (0.0,0.2)	0.30 (0.2,0.5)	0.82 (0.6,1.2)	1.76 (1.2,2.7)	2.65 (1.5,4.7)	3.40 (1.7,7.0)	5.01 (1.6,15.9)
Other race	1.68 (0.8,3.5)	0.27 (0.1,1.1)	0.92 (0.2,3.9)	2.24 (0.8,6.6)	4.23 (2.0,8.8)	6.17 (3.1,12.3)	7.25 (3.8,13.8)	10.18 (4.2,24.7)

Table C-46. Trophic level 2 marine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.45 (0.2,1.1)	0.05 (0.0,0.1)	0.18 (0.1,0.4)	0.51 (0.3,1.0)	1.18 (0.5,2.6)	1.83 (0.7,4.7)	2.29 (0.7,7.4)	3.78 (1.0,14.3)
Northeast	1.24 (0.4,3.8)	0.16 (0.1,0.3)	0.54 (0.2,1.2)	1.47 (0.6,3.6)	3.12 (1.0,9.6)	4.86 (1.5,16.0)	6.27 (1.7,22.5)	9.58 (2.1,44.1)
South	0.97 (0.6,1.7)	0.12 (0.0,0.3)	0.41 (0.2,0.9)	1.15 (0.6,2.2)	2.53 (1.5,4.3)	3.92 (2.2,7.0)	5.10 (2.7,9.6)	7.23 (2.6,19.8)
West	0.90 (0.5,1.7)	0.13 (0.1,0.3)	0.43 (0.2,0.8)	1.10 (0.7,1.9)	2.38 (1.4,4.2)	3.42 (1.7,6.9)	4.37 (2.0,9.6)	6.70 (2.5,18.1)
<b>Coastal Status</b>								
Noncoastal	0.70 (0.3,1.5)	0.08 (0.0,0.2)	0.27 (0.2,0.5)	0.79 (0.5,1.3)	1.79 (0.9,3.4)	2.74 (1.2,6.5)	3.66 (1.4,9.7)	6.27 (2.0,19.5)
Coastal	1.12 (0.6,2.2)	0.16 (0.1,0.3)	0.52 (0.3,0.9)	1.38 (0.8,2.3)	2.90 (1.6,5.4)	4.26 (1.9,9.4)	5.36 (2.1,13.5)	7.99 (2.3,27.5)
<b>Coastal/Inland Region</b>								
Pacific	1.08 (0.6,2.0)	0.15 (0.1,0.3)	0.52 (0.2,1.1)	1.37 (0.7,2.6)	2.75 (1.5,5.1)	3.96 (2.0,7.9)	5.10 (2.4,10.7)	7.66 (2.9,20.3)
Atlantic	1.10 (0.3,3.8)	0.16 (0.1,0.4)	0.52 (0.2,1.3)	1.35 (0.5,3.7)	2.87 (0.9,8.9)	4.16 (1.1,16.1)	5.20 (1.1,23.8)	7.90 (1.4,45.5)
Gulf of Mexico	1.71 (0.9,3.4)	0.31 (0.1,1.3)	0.94 (0.3,3.1)	2.30 (0.9,5.8)	4.48 (2.2,9.0)	6.15 (3.3,11.5)	7.58 (3.8,14.9)	9.77 (3.3,28.5)
Great Lakes	0.66 (0.2,1.9)	0.09 (0.0,0.2)	0.29 (0.1,0.7)	0.80 (0.3,1.9)	1.74 (0.6,4.7)	2.45 (0.7,8.6)	3.30 (1.0,11.3)	5.00 (1.1,21.8)
Inland Northeast	1.26 (0.4,4.0)	0.15 (0.1,0.4)	0.51 (0.2,1.4)	1.45 (0.5,4.1)	3.12 (0.9,10.6)	5.15 (1.7,15.7)	6.55 (1.9,23.0)	10.40 (2.5,42.7)
Inland Midwest	0.39 (0.2,0.9)	0.05 (0.0,0.1)	0.16 (0.1,0.3)	0.45 (0.2,0.9)	1.01 (0.5,2.1)	1.59 (0.7,3.6)	2.03 (0.8,5.1)	3.06 (0.9,10.5)
Inland South	0.74 (0.4,1.4)	0.09 (0.0,0.3)	0.31 (0.1,0.8)	0.86 (0.4,2.0)	1.90 (1.0,3.7)	2.92 (1.6,5.5)	3.95 (2.0,8.0)	6.37 (2.9,13.9)
Inland West	0.73 (0.3,1.7)	0.12 (0.1,0.3)	0.35 (0.2,0.7)	0.88 (0.5,1.7)	1.87 (0.9,4.0)	2.67 (1.0,7.2)	3.43 (1.2,10.2)	5.41 (1.6,18.5)

Table C-47. Trophic level 2 marine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	1.05 (0.5,2.0)	0.17 (0.1,0.3)	0.49 (0.3,0.8)	1.26 (0.8,1.9)	2.65 (1.4,4.8)	3.97 (1.8,8.7)	5.15 (2.1,12.4)	7.70 (2.2,26.7)
<b>Gender</b>								
Female	0.80 (0.4,1.4)	0.13 (0.1,0.3)	0.39 (0.2,0.7)	0.99 (0.6,1.5)	2.03 (1.2,3.5)	2.96 (1.5,5.9)	3.75 (1.7,8.5)	5.49 (1.7,17.7)
Male	1.37 (0.6,2.9)	0.24 (0.1,0.4)	0.68 (0.4,1.1)	1.69 (1.0,2.8)	3.47 (1.7,7.1)	5.26 (2.3,11.9)	6.55 (2.5,17.4)	9.24 (2.2,38.8)
<b>Age</b>								
21 to <35 yrs	0.93 (0.6,1.5)	0.14 (0.1,0.4)	0.44 (0.2,0.9)	1.13 (0.7,1.9)	2.39 (1.6,3.7)	3.63 (2.2,6.1)	4.50 (2.3,8.8)	6.74 (2.4,19.0)
35 to <50 yrs	1.00 (0.5,2.2)	0.17 (0.1,0.3)	0.48 (0.3,0.8)	1.21 (0.7,2.1)	2.50 (1.2,5.3)	3.82 (1.6,9.1)	4.98 (2.0,12.5)	7.37 (2.1,26.4)
50 to <65 yrs	1.35 (0.6,3.0)	0.25 (0.1,0.5)	0.69 (0.4,1.2)	1.67 (0.9,3.0)	3.28 (1.4,7.6)	5.11 (2.2,12.1)	6.48 (2.4,17.2)	8.92 (2.0,39.6)
65+ yrs	0.91 (0.4,2.1)	0.14 (0.1,0.3)	0.41 (0.2,0.7)	1.07 (0.6,2.0)	2.33 (1.1,4.9)	3.43 (1.3,9.0)	4.56 (1.7,12.6)	6.83 (1.8,26.6)
<b>WCA (13-49 years)</b>	0.68 (0.4,1.1)	0.10 (0.0,0.2)	0.31 (0.2,0.6)	0.84 (0.5,1.3)	1.75 (1.1,2.8)	2.60 (1.5,4.7)	3.24 (1.5,6.8)	4.82 (1.7,13.8)
<b>Income</b>								
<\$20,000	0.79 (0.4,1.7)	0.11 (0.1,0.2)	0.33 (0.2,0.6)	0.88 (0.5,1.6)	1.95 (0.9,4.0)	3.11 (1.4,7.0)	4.25 (1.9,9.6)	6.40 (2.0,20.1)
>\$20,000	1.08 (0.5,2.1)	0.18 (0.1,0.3)	0.52 (0.3,0.8)	1.31 (0.8,2.0)	2.69 (1.4,5.1)	4.01 (1.7,9.2)	5.17 (2.0,13.2)	7.77 (2.2,28.1)
Income unknown	1.60 (0.9,2.9)	0.28 (0.1,1.4)	0.86 (0.2,3.2)	2.18 (0.8,5.8)	3.98 (2.1,7.4)	5.94 (3.0,11.6)	7.10 (3.2,15.8)	9.55 (2.5,36.8)
<b>Income, finer detail</b>								
<\$20,000	0.79 (0.4,1.7)	0.11 (0.1,0.2)	0.33 (0.2,0.6)	0.88 (0.5,1.6)	1.95 (0.9,4.0)	3.11 (1.4,7.0)	4.25 (1.9,9.6)	6.40 (2.0,20.1)
\$20k-\$45k	0.98 (0.5,1.7)	0.16 (0.0,0.5)	0.45 (0.2,1.1)	1.17 (0.5,2.5)	2.44 (1.3,4.4)	3.64 (2.1,6.3)	4.77 (2.6,8.7)	7.21 (3.4,15.1)
\$45k-\$75k	1.01 (0.4,2.4)	0.16 (0.1,0.3)	0.47 (0.3,0.9)	1.21 (0.6,2.3)	2.55 (1.2,5.6)	3.95 (1.6,9.5)	5.10 (1.9,13.6)	6.91 (1.4,34.7)
\$75k+	1.24 (0.5,3.3)	0.24 (0.1,0.4)	0.64 (0.4,1.1)	1.53 (0.7,3.2)	3.05 (1.1,8.2)	4.43 (1.4,14.3)	5.63 (1.6,19.9)	8.38 (1.8,39.6)
>\$20,000	0.61 (0.2,2.1)	0.11 (0.0,0.3)	0.29 (0.1,0.9)	0.74 (0.3,2.1)	1.63 (0.6,4.7)	2.24 (0.6,8.4)	2.71 (0.6,12.6)	4.52 (0.9,22.0)
Inc Ref/DK	1.74 (0.9,3.3)	0.33 (0.1,1.2)	0.95 (0.3,2.7)	2.24 (1.1,4.6)	4.63 (2.4,8.8)	6.54 (3.3,13.1)	7.90 (3.4,18.4)	10.37 (2.5,43.2)
Inc missing	1.28 (0.2,6.8)	0.19 (0.0,2.2)	0.68 (0.1,8.3)	1.95 (0.2,20.8)	3.16 (0.6,15.9)	4.10 (1.1,15.5)	5.67 (1.3,25.5)	8.53 (1.7,42.4)
<b>Race/Ethnicity</b>								
Mexican American	1.09 (0.6,1.9)	0.19 (0.1,0.4)	0.54 (0.3,1.0)	1.33 (0.8,2.1)	2.67 (1.6,4.6)	4.09 (2.2,7.7)	5.31 (2.6,10.8)	7.83 (2.9,21.3)
Other Hispanic	1.06 (0.5,2.0)	0.20 (0.1,0.7)	0.55 (0.2,1.4)	1.36 (0.7,2.8)	2.61 (1.4,5.0)	3.66 (1.6,8.2)	4.65 (1.9,11.6)	6.83 (2.0,23.2)
White	0.99 (0.4,2.3)	0.16 (0.1,0.3)	0.46 (0.3,0.8)	1.17 (0.6,2.1)	2.52 (1.2,5.4)	3.76 (1.4,10.1)	4.88 (1.6,14.5)	7.38 (1.7,31.2)
Black	0.86 (0.5,1.4)	0.16 (0.1,0.3)	0.45 (0.3,0.8)	1.06 (0.7,1.5)	2.14 (1.4,3.3)	3.14 (1.7,5.8)	3.89 (1.7,8.7)	5.60 (1.6,19.7)
Other race	2.10 (1.0,4.4)	0.50 (0.1,2.5)	1.34 (0.3,5.6)	2.76 (1.1,7.1)	5.14 (2.4,10.9)	6.85 (3.6,13.1)	8.09 (4.1,16.1)	10.53 (3.6,30.7)

Table C-47. Trophic level 2 marine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.54 (0.2,1.4)	0.09 (0.0,0.2)	0.25 (0.1,0.5)	0.64 (0.3,1.3)	1.40 (0.6,3.1)	2.03 (0.7,5.8)	2.51 (0.7,9.0)	4.06 (1.0,16.9)
Northeast	1.47 (0.5,4.8)	0.26 (0.1,0.5)	0.75 (0.3,1.6)	1.78 (0.7,4.8)	3.65 (1.1,11.8)	5.50 (1.6,19.0)	6.93 (1.7,27.5)	10.31 (2.0,53.0)
South	1.19 (0.7,2.0)	0.21 (0.1,0.5)	0.59 (0.3,1.3)	1.47 (0.8,2.7)	2.99 (1.8,5.1)	4.57 (2.5,8.2)	5.63 (2.8,11.3)	8.22 (3.1,22.1)
West	1.11 (0.6,2.0)	0.23 (0.1,0.5)	0.59 (0.3,1.1)	1.40 (0.8,2.3)	2.72 (1.5,5.0)	3.91 (1.9,8.1)	4.94 (2.2,11.0)	7.32 (2.6,20.9)
<b>Coastal Status</b>								
Noncoastal	0.86 (0.4,1.8)	0.13 (0.1,0.2)	0.39 (0.2,0.6)	0.99 (0.6,1.6)	2.13 (1.1,4.2)	3.17 (1.3,7.9)	4.23 (1.6,11.4)	6.78 (1.9,23.9)
Coastal	1.35 (0.7,2.7)	0.26 (0.1,0.5)	0.72 (0.4,1.2)	1.73 (1.1,2.8)	3.40 (1.8,6.5)	4.89 (2.2,11.0)	5.95 (2.2,16.1)	8.39 (2.1,33.8)
<b>Coastal/Inland Region</b>								
Pacific	1.30 (0.7,2.3)	0.25 (0.1,0.6)	0.71 (0.3,1.5)	1.65 (0.9,3.0)	3.19 (1.7,5.9)	4.57 (2.3,9.0)	5.70 (2.7,11.9)	8.09 (2.9,22.9)
Atlantic	1.32 (0.4,4.6)	0.27 (0.1,0.6)	0.70 (0.3,1.8)	1.70 (0.6,4.5)	3.25 (0.9,11.2)	4.64 (1.1,19.3)	5.68 (1.1,28.5)	8.34 (1.3,54.2)
Gulf of Mexico	2.13 (1.1,4.2)	0.50 (0.1,1.9)	1.36 (0.4,4.8)	2.82 (1.2,6.5)	5.28 (2.7,10.5)	7.00 (3.7,13.3)	8.18 (3.9,17.0)	10.90 (3.7,32.1)
Great Lakes	0.81 (0.3,2.3)	0.15 (0.1,0.4)	0.44 (0.2,1.0)	1.03 (0.4,2.4)	2.00 (0.7,5.9)	2.71 (0.7,10.8)	3.76 (1.1,13.1)	5.38 (1.1,26.4)
Inland Northeast	1.50 (0.5,4.9)	0.23 (0.1,0.6)	0.72 (0.3,1.8)	1.76 (0.6,5.3)	3.69 (1.1,12.4)	5.82 (1.8,18.6)	7.36 (2.0,26.4)	11.03 (2.3,52.2)
Inland Midwest	0.47 (0.2,1.1)	0.08 (0.0,0.2)	0.22 (0.1,0.4)	0.56 (0.3,1.1)	1.22 (0.6,2.5)	1.83 (0.8,4.2)	2.29 (0.9,6.1)	3.48 (1.0,11.8)
Inland South	0.92 (0.5,1.8)	0.16 (0.0,0.5)	0.45 (0.2,1.2)	1.09 (0.5,2.4)	2.27 (1.2,4.3)	3.39 (1.8,6.3)	4.62 (2.2,9.8)	6.59 (3.1,14.2)
Inland West	0.90 (0.4,2.0)	0.21 (0.1,0.5)	0.50 (0.3,0.9)	1.10 (0.6,2.1)	2.26 (1.1,4.7)	3.14 (1.2,8.3)	4.03 (1.4,11.4)	5.99 (1.6,22.3)

Table C-48. Trophic level 2 marine fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	0.40 (0.2,0.8)	0.04 (0.0,0.1)	0.13 (0.1,0.3)	0.41 (0.2,0.8)	1.01 (0.5,1.9)	1.69 (0.8,3.5)	2.31 (1.0,5.2)	3.74 (1.2,11.6)
<b>Gender</b>								
Female	0.30 (0.2,0.6)	0.03 (0.0,0.1)	0.10 (0.0,0.2)	0.32 (0.2,0.6)	0.80 (0.4,1.5)	1.29 (0.7,2.5)	1.74 (0.9,3.4)	2.70 (1.0,7.2)
Male	0.51 (0.2,1.1)	0.05 (0.0,0.1)	0.17 (0.1,0.3)	0.51 (0.3,1.0)	1.26 (0.6,2.8)	2.10 (0.9,4.9)	2.83 (1.1,7.3)	4.86 (1.6,14.8)
<b>Age</b>								
1 to <3 yrs	0.17 (0.1,0.5)	0.02 (0.0,0.1)	0.06 (0.0,0.2)	0.17 (0.1,0.6)	0.44 (0.1,1.5)	0.75 (0.2,2.6)	1.02 (0.3,3.4)	1.77 (0.5,6.0)
3 to <6 yrs	0.31 (0.1,0.7)	0.04 (0.0,0.1)	0.12 (0.1,0.3)	0.37 (0.2,0.8)	0.82 (0.4,1.7)	1.20 (0.5,3.0)	1.60 (0.6,4.4)	2.54 (0.7,9.6)
6 to <11 yrs	0.34 (0.1,0.8)	0.04 (0.0,0.1)	0.12 (0.0,0.4)	0.35 (0.1,1.0)	0.86 (0.4,2.1)	1.48 (0.6,3.7)	1.88 (0.8,4.3)	3.37 (1.4,8.0)
11 to <16 yrs	0.34 (0.1,2.3)	0.04 (0.0,0.2)	0.12 (0.0,0.7)	0.35 (0.1,2.1)	0.85 (0.1,5.7)	1.37 (0.2,10.1)	1.92 (0.3,13.3)	3.08 (0.3,27.2)
16 to <18 yrs	0.56 (0.2,1.3)	0.06 (0.0,0.2)	0.20 (0.1,0.4)	0.62 (0.3,1.2)	1.51 (0.7,3.1)	2.32 (1.0,5.4)	2.94 (1.0,8.3)	4.63 (1.2,18.4)
18 to <21 yrs	0.74 (0.3,1.7)	0.07 (0.0,0.2)	0.25 (0.1,0.7)	0.80 (0.3,2.3)	1.87 (0.8,4.4)	2.94 (1.3,6.6)	3.88 (1.7,8.9)	6.75 (2.6,17.8)
<b>Income</b>								
<\$20,000	0.36 (0.2,0.8)	0.04 (0.0,0.1)	0.12 (0.1,0.2)	0.36 (0.2,0.7)	0.90 (0.5,1.8)	1.48 (0.7,3.3)	2.13 (1.0,4.7)	3.33 (1.0,11.4)
>\$20,000	0.39 (0.2,0.9)	0.04 (0.0,0.1)	0.13 (0.1,0.3)	0.40 (0.2,0.8)	0.99 (0.5,2.0)	1.66 (0.8,3.6)	2.25 (0.9,5.4)	3.64 (1.1,12.2)
Income unknown	0.80 (0.3,2.1)	0.09 (0.0,0.5)	0.27 (0.1,1.2)	0.84 (0.2,3.0)	2.06 (0.7,6.3)	3.60 (1.1,11.6)	4.41 (1.7,11.5)	8.48 (2.6,27.5)
<b>Income, finer detail</b>								
<\$20,000	0.36 (0.2,0.8)	0.04 (0.0,0.1)	0.12 (0.1,0.2)	0.36 (0.2,0.7)	0.90 (0.5,1.8)	1.48 (0.7,3.3)	2.13 (1.0,4.7)	3.33 (1.0,11.4)
\$20k-\$45k	0.41 (0.2,0.9)	0.04 (0.0,0.1)	0.13 (0.0,0.4)	0.40 (0.1,1.1)	1.01 (0.4,2.4)	1.69 (0.7,3.8)	2.30 (1.1,5.0)	3.68 (1.5,8.8)
\$45k-\$75k	0.33 (0.1,1.0)	0.03 (0.0,0.1)	0.11 (0.0,0.2)	0.34 (0.2,0.7)	0.85 (0.3,2.2)	1.40 (0.4,4.4)	1.79 (0.4,7.5)	2.89 (0.4,20.0)
\$75k+	0.43 (0.2,1.1)	0.04 (0.0,0.1)	0.14 (0.1,0.3)	0.45 (0.2,1.0)	1.07 (0.4,2.9)	1.88 (0.8,4.7)	2.49 (0.9,7.0)	4.10 (1.1,14.8)
>\$20,000	0.30 (0.1,1.0)	0.04 (0.0,0.1)	0.12 (0.0,0.3)	0.38 (0.1,1.1)	0.84 (0.3,2.7)	1.27 (0.4,4.4)	1.44 (0.3,7.2)	2.10 (0.3,15.7)
Inc Ref/DK	1.00 (0.3,3.1)	0.11 (0.0,0.5)	0.33 (0.1,1.2)	1.08 (0.3,4.4)	2.65 (0.7,9.6)	3.93 (1.4,11.2)	5.69 (1.8,18.2)	9.20 (2.9,29.6)
Inc missing	0.51 (0.1,2.2)	0.07 (0.0,0.7)	0.19 (0.0,1.2)	0.66 (0.1,5.0)	1.47 (0.2,9.0)	1.96 (0.4,9.0)	2.28 (0.5,10.7)	4.23 (0.8,23.7)
<b>Race/Ethnicity</b>								
Mexican American	0.41 (0.2,0.9)	0.05 (0.0,0.1)	0.15 (0.1,0.3)	0.42 (0.2,0.8)	1.01 (0.5,2.0)	1.65 (0.8,3.5)	2.17 (0.9,5.1)	3.66 (1.2,11.1)
Other Hispanic	0.39 (0.2,0.8)	0.04 (0.0,0.1)	0.13 (0.0,0.4)	0.43 (0.2,1.1)	1.00 (0.5,2.2)	1.68 (0.8,3.6)	2.19 (1.0,4.7)	3.49 (1.3,9.4)
White	0.38 (0.2,0.9)	0.03 (0.0,0.1)	0.11 (0.1,0.2)	0.36 (0.2,0.7)	0.93 (0.4,2.0)	1.59 (0.7,3.8)	2.20 (0.8,5.7)	3.64 (1.0,12.9)
Black	0.32 (0.1,0.7)	0.04 (0.0,0.1)	0.13 (0.1,0.2)	0.36 (0.2,0.6)	0.82 (0.4,1.6)	1.29 (0.6,2.9)	1.72 (0.7,4.2)	2.67 (0.7,9.8)
Other race	0.77 (0.3,1.7)	0.09 (0.0,0.3)	0.33 (0.1,1.2)	0.91 (0.3,2.4)	2.13 (0.9,5.2)	3.06 (1.4,6.8)	3.78 (1.6,8.8)	5.31 (1.7,17.1)

Table C-48. Trophic level 2 marine fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.21 (0.1,0.7)	0.02 (0.0,0.1)	0.06 (0.0,0.2)	0.19 (0.1,0.5)	0.52 (0.2,1.5)	0.91 (0.3,2.8)	1.19 (0.3,4.5)	2.18 (0.5,9.6)
Northeast	0.64 (0.3,1.6)	0.06 (0.0,0.1)	0.21 (0.1,0.4)	0.62 (0.3,1.5)	1.59 (0.6,4.0)	2.69 (1.1,6.7)	3.52 (1.3,9.5)	6.23 (2.0,19.6)
South	0.41 (0.2,0.8)	0.05 (0.0,0.1)	0.15 (0.1,0.4)	0.44 (0.2,0.9)	1.04 (0.5,2.1)	1.67 (0.8,3.4)	2.21 (1.0,4.9)	3.67 (1.3,10.1)
West	0.44 (0.2,0.9)	0.05 (0.0,0.1)	0.16 (0.1,0.4)	0.49 (0.2,1.0)	1.16 (0.6,2.2)	1.82 (0.9,3.6)	2.40 (1.1,5.2)	3.69 (1.2,11.4)
<b>Coastal Status</b>								
Noncoastal	0.33 (0.1,0.7)	0.03 (0.0,0.1)	0.10 (0.1,0.2)	0.32 (0.2,0.6)	0.81 (0.4,1.6)	1.38 (0.6,3.0)	1.86 (0.8,4.6)	3.11 (0.9,10.5)
Coastal	0.52 (0.2,1.1)	0.06 (0.0,0.1)	0.19 (0.1,0.4)	0.57 (0.3,1.1)	1.32 (0.6,2.7)	2.20 (1.0,4.6)	2.75 (1.1,7.0)	4.63 (1.5,14.1)
<b>Coastal/Inland Region</b>								
Pacific	0.51 (0.2,1.1)	0.05 (0.0,0.1)	0.18 (0.1,0.4)	0.58 (0.3,1.3)	1.32 (0.6,2.8)	2.26 (1.0,4.9)	2.68 (1.1,6.4)	4.31 (1.3,13.8)
Atlantic	0.50 (0.2,1.4)	0.06 (0.0,0.2)	0.19 (0.1,0.4)	0.54 (0.2,1.3)	1.17 (0.4,3.7)	2.04 (0.7,6.0)	2.67 (0.8,8.9)	4.84 (1.5,15.9)
Gulf of Mexico	0.79 (0.4,1.7)	0.12 (0.0,0.4)	0.37 (0.1,1.3)	0.99 (0.4,2.6)	1.95 (0.9,4.4)	2.94 (1.3,6.6)	3.57 (1.3,9.5)	5.38 (1.4,20.2)
Great Lakes	0.33 (0.1,1.2)	0.04 (0.0,0.1)	0.10 (0.0,0.3)	0.32 (0.1,1.1)	0.80 (0.2,3.1)	1.38 (0.4,5.3)	2.05 (0.6,7.3)	4.41 (1.3,15.2)
Inland Northeast	0.64 (0.2,1.8)	0.06 (0.0,0.2)	0.19 (0.1,0.6)	0.58 (0.2,2.0)	1.60 (0.5,4.9)	2.80 (1.1,7.5)	3.50 (1.1,11.5)	6.32 (1.8,22.5)
Inland Midwest	0.17 (0.1,0.4)	0.02 (0.0,0.0)	0.05 (0.0,0.1)	0.17 (0.1,0.4)	0.45 (0.2,1.1)	0.78 (0.3,1.9)	1.02 (0.4,2.6)	1.80 (0.6,5.5)
Inland South	0.30 (0.2,0.6)	0.03 (0.0,0.1)	0.10 (0.0,0.3)	0.30 (0.1,0.6)	0.74 (0.4,1.5)	1.21 (0.6,2.4)	1.65 (0.8,3.3)	2.59 (1.2,5.6)
Inland West	0.38 (0.2,0.8)	0.04 (0.0,0.1)	0.15 (0.1,0.4)	0.42 (0.2,0.9)	1.01 (0.5,2.1)	1.63 (0.8,3.4)	2.02 (0.8,4.9)	3.08 (0.9,10.2)

Table C-49. Trophic level 3 marine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	3.18 (2.0,5.0)	0.63 (0.3,1.3)	1.81 (1.0,3.3)	4.13 (2.5,6.7)	7.75 (5.1,11.8)	10.95 (7.2,16.8)	13.48 (8.8,20.6)	19.37 (12.5,30.0)
<b>Gender</b>								
Female	2.78 (1.8,4.3)	0.56 (0.3,1.2)	1.63 (0.8,3.1)	3.61 (2.3,5.8)	6.69 (4.5,9.9)	9.57 (6.3,14.5)	11.64 (7.8,17.4)	16.50 (10.9,24.9)
Male	3.67 (2.3,5.9)	0.73 (0.4,1.5)	2.09 (1.2,3.8)	4.78 (2.9,8.0)	8.96 (5.6,14.2)	12.59 (8.0,19.9)	15.50 (9.7,24.8)	21.97 (13.7,35.2)
<b>Age</b>								
1 to <3 yrs	1.01 (0.6,1.7)	0.17 (0.1,0.4)	0.50 (0.2,1.1)	1.24 (0.7,2.3)	2.55 (1.5,4.4)	3.66 (2.2,6.0)	4.54 (2.8,7.3)	6.64 (4.0,11.1)
3 to <6 yrs	1.33 (0.6,2.9)	0.24 (0.1,0.8)	0.68 (0.2,2.1)	1.68 (0.7,4.2)	3.37 (1.5,7.6)	4.76 (2.4,9.6)	6.12 (3.0,12.5)	9.15 (4.7,17.9)
6 to <11 yrs	2.16 (0.8,5.6)	0.37 (0.1,1.2)	1.07 (0.3,3.4)	2.77 (0.9,8.4)	5.50 (2.1,14.6)	7.75 (3.3,18.3)	9.54 (4.4,20.9)	14.29 (6.9,29.7)
11 to <16 yrs	1.48 (0.9,2.6)	0.25 (0.1,0.5)	0.70 (0.4,1.3)	1.81 (1.0,3.2)	3.58 (2.1,6.1)	5.48 (3.1,9.6)	6.87 (4.0,11.8)	10.84 (5.8,20.2)
16 to <18 yrs	1.46 (0.8,2.6)	0.24 (0.1,0.5)	0.72 (0.4,1.5)	1.81 (1.0,3.4)	3.83 (2.0,7.4)	5.35 (3.0,9.5)	6.30 (3.7,10.8)	9.95 (5.5,18.0)
18 to <21 yrs	2.03 (1.2,3.4)	0.30 (0.1,0.7)	0.94 (0.5,1.8)	2.54 (1.4,4.5)	5.23 (3.0,9.0)	7.49 (4.4,12.8)	9.81 (5.7,16.8)	14.88 (8.6,25.9)
21 to <35 yrs	3.54 (1.9,6.6)	0.85 (0.3,2.5)	2.20 (0.9,5.3)	4.60 (2.4,9.0)	8.36 (4.7,15.0)	11.46 (6.8,19.3)	13.77 (8.7,21.8)	20.54 (11.7,36.1)
35 to <50 yrs	3.44 (2.5,4.8)	0.89 (0.5,1.5)	2.12 (1.4,3.3)	4.42 (3.1,6.3)	7.92 (5.8,10.8)	11.16 (8.0,15.6)	13.74 (9.6,19.7)	20.12 (13.4,30.3)
50 to <65 yrs	5.01 (2.5,9.9)	1.56 (0.6,4.3)	3.36 (1.5,7.4)	6.66 (3.2,13.7)	11.54 (5.7,23.3)	15.16 (8.0,28.9)	17.97 (9.8,32.9)	23.47 (14.3,38.6)
65+ yrs	3.29 (2.3,4.8)	0.91 (0.5,1.8)	2.14 (1.2,3.7)	4.32 (2.8,6.6)	7.56 (5.4,10.7)	10.26 (7.3,14.5)	12.37 (8.6,17.7)	17.38 (11.3,26.8)
<b>Income</b>								
<\$20,000	2.98 (2.1,4.2)	0.51 (0.3,0.9)	1.59 (1.0,2.5)	3.75 (2.6,5.4)	7.35 (5.2,10.3)	10.56 (7.4,15.0)	12.84 (8.8,18.8)	20.04 (13.4,29.9)
>\$20,000	3.18 (2.0,5.2)	0.65 (0.3,1.4)	1.85 (1.0,3.6)	4.14 (2.5,6.9)	7.73 (4.9,12.2)	10.90 (6.9,17.3)	13.44 (8.4,21.5)	19.10 (12.0,30.5)
Income unknown	4.11 (1.7,9.8)	0.91 (0.2,4.0)	2.57 (0.7,10.0)	5.58 (2.0,15.9)	10.12 (4.4,23.1)	13.76 (6.6,28.8)	16.23 (8.6,30.6)	21.84 (13.0,36.7)
<b>Income, finer detail</b>								
<\$20,000	2.98 (2.1,4.2)	0.51 (0.3,0.9)	1.59 (1.0,2.5)	3.75 (2.6,5.4)	7.35 (5.2,10.3)	10.56 (7.4,15.0)	12.84 (8.8,18.8)	20.04 (13.4,29.9)
\$20k-\$45k	2.87 (1.7,5.0)	0.58 (0.2,1.4)	1.67 (0.7,3.7)	3.70 (2.0,6.7)	6.87 (4.3,11.1)	9.80 (6.0,15.9)	11.96 (7.6,18.9)	17.95 (10.4,31.0)
\$45k-\$75k	3.38 (1.8,6.2)	0.63 (0.3,1.4)	1.90 (0.9,4.0)	4.40 (2.3,8.6)	8.33 (4.5,15.3)	11.79 (6.5,21.5)	14.39 (8.2,25.2)	20.62 (12.1,35.2)
\$75k+	3.29 (2.2,4.9)	0.71 (0.4,1.5)	1.94 (1.2,3.2)	4.29 (2.8,6.5)	7.94 (5.4,11.6)	11.21 (7.4,17.0)	13.84 (8.8,21.9)	19.31 (12.3,30.4)
>\$20,000	3.39 (1.5,7.8)	0.84 (0.2,2.8)	2.19 (0.8,6.2)	4.55 (1.9,11.1)	7.72 (3.7,16.2)	10.45 (5.2,21.2)	12.70 (6.0,26.7)	19.12 (7.5,48.9)
Inc Ref/DK	4.18 (1.6,10.7)	0.98 (0.2,4.7)	2.76 (0.6,12.2)	5.79 (1.8,18.4)	10.24 (4.1,25.6)	12.93 (6.7,24.9)	14.70 (8.6,25.1)	21.43 (11.1,41.3)
Inc missing	3.97 (1.2,13.3)	0.78 (0.1,4.1)	2.13 (0.5,8.9)	5.02 (1.4,18.7)	9.80 (3.2,30.5)	15.88 (3.9,65.0)	18.27 (5.1,65.0)	21.84 (8.3,57.2)
<b>Race/Ethnicity</b>								
Mexican American	2.67 (1.7,4.3)	0.51 (0.3,1.0)	1.50 (0.8,3.0)	3.58 (2.0,6.5)	6.47 (4.2,10.0)	9.04 (6.0,13.7)	11.09 (7.4,16.7)	16.15 (10.3,25.4)
Other Hispanic	2.20 (1.4,3.4)	0.45 (0.2,1.0)	1.33 (0.7,2.6)	2.99 (1.8,5.0)	5.28 (3.4,8.2)	6.96 (4.3,11.3)	8.57 (5.2,14.2)	12.22 (7.2,20.8)
White	2.87 (1.8,4.5)	0.59 (0.3,1.2)	1.68 (0.9,3.1)	3.73 (2.3,5.9)	6.92 (4.6,10.3)	9.92 (6.4,15.4)	12.10 (7.8,18.8)	16.77 (11.1,25.3)
Black	3.44 (2.4,4.9)	0.83 (0.5,1.5)	2.16 (1.4,3.4)	4.66 (3.1,6.9)	8.13 (5.7,11.6)	10.85 (7.4,15.9)	13.15 (8.7,19.9)	18.91 (11.9,30.1)
Other race	7.41 (3.7,14.8)	2.10 (0.7,6.2)	5.54 (2.0,15.5)	10.35 (4.9,21.7)	16.36 (9.4,28.6)	21.13 (12.3,36.2)	25.87 (13.7,48.8)	34.67 (18.5,65.1)

Table C-49. Trophic level 3 marine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.23 (1.2,4.0)	0.42 (0.2,0.9)	1.23 (0.6,2.6)	2.76 (1.5,4.9)	5.39 (3.1,9.4)	7.82 (4.4,14.0)	10.14 (5.2,19.8)	15.15 (7.5,30.7)
Northeast	3.72 (2.2,6.2)	0.73 (0.4,1.4)	2.16 (1.2,3.8)	4.96 (2.8,8.7)	8.93 (5.5,14.4)	12.77 (7.3,22.5)	15.07 (9.1,24.9)	22.85 (11.8,44.3)
South	3.25 (2.2,4.9)	0.68 (0.3,1.3)	1.96 (1.1,3.6)	4.26 (2.7,6.6)	7.73 (5.4,11.1)	10.78 (7.4,15.6)	13.17 (9.0,19.3)	19.07 (12.2,29.7)
West	3.72 (2.3,6.1)	0.82 (0.4,1.9)	2.26 (1.1,4.6)	4.91 (2.8,8.6)	9.14 (5.4,15.4)	12.38 (7.9,19.4)	15.01 (9.7,23.1)	20.33 (13.5,30.6)
<b>Coastal Status</b>								
Noncoastal	3.04 (1.6,5.8)	0.57 (0.2,1.3)	1.68 (0.8,3.7)	3.91 (2.0,7.8)	7.42 (4.0,13.7)	10.63 (5.7,19.9)	13.06 (7.1,24.0)	18.85 (10.6,33.7)
Coastal	3.41 (2.5,4.7)	0.75 (0.4,1.2)	2.04 (1.4,3.0)	4.47 (3.2,6.2)	8.17 (6.0,11.1)	11.47 (8.2,16.0)	14.06 (9.8,20.2)	19.91 (13.0,30.6)
<b>Coastal/Inland Region</b>								
Pacific	3.54 (2.5,5.0)	0.72 (0.4,1.2)	2.09 (1.3,3.3)	4.62 (3.2,6.7)	8.59 (6.1,12.2)	12.14 (8.5,17.3)	14.75 (10.0,21.7)	20.28 (12.7,32.4)
Atlantic	3.67 (2.4,5.7)	0.85 (0.5,1.6)	2.24 (1.3,3.8)	4.81 (3.1,7.6)	8.75 (5.7,13.3)	12.36 (8.1,19.0)	15.01 (9.6,23.4)	21.17 (12.6,35.6)
Gulf of Mexico	3.50 (2.2,5.6)	0.85 (0.3,2.3)	2.28 (1.1,4.9)	4.70 (2.8,8.0)	8.26 (5.4,12.6)	10.87 (7.3,16.1)	13.08 (8.8,19.5)	18.12 (11.6,28.4)
Great Lakes	2.32 (1.5,3.6)	0.48 (0.3,0.8)	1.40 (0.9,2.2)	3.05 (2.0,4.7)	5.43 (3.3,8.9)	7.66 (4.7,12.6)	9.61 (5.8,15.9)	14.15 (7.9,25.5)
Inland Northeast	3.56 (1.8,7.2)	0.61 (0.3,1.1)	2.03 (1.0,4.2)	4.63 (2.4,9.1)	8.63 (4.4,17.1)	12.07 (5.9,24.7)	14.57 (7.3,29.1)	22.85 (8.8,59.5)
Inland Midwest	2.20 (0.9,5.2)	0.41 (0.1,1.1)	1.19 (0.5,3.2)	2.66 (1.2,5.9)	5.37 (2.3,12.6)	7.88 (3.2,19.3)	10.22 (3.8,27.3)	15.20 (5.7,40.3)
Inland South	3.09 (1.7,5.6)	0.59 (0.3,1.2)	1.80 (0.8,4.0)	4.06 (2.1,7.8)	7.39 (4.3,12.6)	10.45 (6.1,17.8)	12.86 (7.6,21.8)	18.22 (11.0,30.3)
Inland West	3.90 (1.6,9.4)	0.90 (0.3,3.1)	2.45 (0.8,7.5)	5.17 (2.0,13.3)	9.64 (3.8,24.4)	12.68 (5.8,27.7)	15.43 (7.2,33.2)	20.56 (11.2,37.9)

Table C-50. Trophic level 3 marine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	3.81 (2.4,5.9)	0.99 (0.5,2.1)	2.40 (1.4,4.2)	4.96 (3.1,7.9)	8.94 (5.8,13.9)	12.30 (7.9,19.0)	14.79 (9.7,22.4)	21.07 (13.4,33.1)
<b>Gender</b>								
Female	3.28 (2.1,5.1)	0.86 (0.4,1.8)	2.11 (1.1,3.9)	4.31 (2.7,6.9)	7.68 (5.1,11.5)	10.47 (7.1,15.5)	12.69 (8.5,18.9)	17.89 (11.6,27.5)
Male	4.47 (2.8,7.2)	1.21 (0.6,2.4)	2.87 (1.6,5.1)	5.80 (3.7,9.1)	10.50 (6.5,17.1)	14.38 (8.8,23.5)	16.89 (11.0,25.9)	23.40 (14.9,36.9)
<b>Age</b>								
21 to <35 yrs	3.54 (1.9,6.6)	0.85 (0.3,2.5)	2.20 (0.9,5.3)	4.60 (2.4,9.0)	8.36 (4.7,15.0)	11.46 (6.8,19.3)	13.77 (8.7,21.8)	20.54 (11.7,36.1)
35 to <50 yrs	3.44 (2.5,4.8)	0.89 (0.5,1.5)	2.12 (1.4,3.3)	4.42 (3.1,6.3)	7.92 (5.8,10.8)	11.16 (8.0,15.6)	13.74 (9.6,19.7)	20.12 (13.4,30.3)
50 to <65 yrs	5.01 (2.5,9.9)	1.56 (0.6,4.3)	3.36 (1.5,7.4)	6.66 (3.2,13.7)	11.54 (5.7,23.3)	15.16 (8.0,28.9)	17.97 (9.8,32.9)	23.47 (14.3,38.6)
65+ yrs	3.29 (2.3,4.8)	0.91 (0.5,1.8)	2.14 (1.2,3.7)	4.32 (2.8,6.6)	7.56 (5.4,10.7)	10.26 (7.3,14.5)	12.37 (8.6,17.7)	17.38 (11.3,26.8)
<b>WCA (13-49 years)</b>	2.68 (1.8,3.9)	0.56 (0.3,1.1)	1.61 (0.9,2.9)	3.52 (2.3,5.3)	6.40 (4.6,8.9)	9.16 (6.4,13.1)	10.91 (7.7,15.4)	15.15 (10.2,22.6)
<b>Income</b>								
<\$20,000	3.57 (2.5,5.1)	0.77 (0.4,1.4)	2.04 (1.3,3.2)	4.51 (3.1,6.5)	8.57 (6.1,12.1)	11.79 (8.2,17.1)	14.22 (9.5,21.2)	22.17 (14.4,34.2)
>\$20,000	3.81 (2.4,6.1)	1.03 (0.5,2.2)	2.43 (1.3,4.4)	4.98 (3.0,8.2)	8.90 (5.6,14.2)	12.24 (7.6,19.6)	14.73 (9.3,23.3)	20.75 (12.8,33.6)
Income unknown	4.86 (2.0,11.6)	1.34 (0.3,6.5)	3.26 (0.9,11.5)	6.49 (2.6,16.3)	11.71 (4.8,28.5)	15.37 (7.3,32.6)	17.74 (9.4,33.6)	23.53 (13.5,41.2)
<b>Income, finer detail</b>								
<\$20,000	3.57 (2.5,5.1)	0.77 (0.4,1.4)	2.04 (1.3,3.2)	4.51 (3.1,6.5)	8.57 (6.1,12.1)	11.79 (8.2,17.1)	14.22 (9.5,21.2)	22.17 (14.4,34.2)
\$20k-\$45k	3.39 (2.0,5.8)	0.87 (0.4,2.1)	2.16 (1.0,4.6)	4.48 (2.4,8.2)	7.85 (4.9,12.7)	10.89 (6.8,17.4)	13.35 (8.3,21.5)	19.10 (11.3,32.2)
\$45k-\$75k	4.04 (2.2,7.5)	1.01 (0.4,2.3)	2.53 (1.2,5.5)	5.29 (2.7,10.4)	9.74 (4.9,19.2)	13.03 (7.3,23.3)	15.86 (9.1,27.8)	22.68 (12.6,40.9)
\$75k+	3.99 (2.7,5.8)	1.16 (0.6,2.1)	2.62 (1.7,4.1)	5.21 (3.6,7.6)	9.30 (6.2,14.0)	12.69 (8.1,19.8)	14.92 (9.8,22.8)	21.13 (13.1,34.2)
>\$20,000	3.77 (1.8,7.9)	1.10 (0.4,2.9)	2.68 (1.0,6.9)	5.15 (2.3,11.5)	8.54 (4.2,17.3)	10.68 (5.6,20.3)	14.06 (6.4,30.8)	19.73 (8.2,47.2)
Inc Ref/DK	4.75 (2.0,11.3)	1.33 (0.3,6.1)	3.29 (0.9,11.8)	6.43 (2.5,16.6)	11.27 (4.8,26.4)	13.76 (7.7,24.6)	16.04 (9.3,27.7)	21.43 (11.2,41.1)
Inc missing	5.10 (1.4,19.2)	1.36 (0.2,10.3)	3.04 (0.7,14.0)	6.78 (1.6,28.1)	14.09 (2.8,70.2)	17.74 (4.4,71.1)	19.24 (6.3,58.9)	24.71 (8.4,72.3)
<b>Race/Ethnicity</b>								
Mexican American	3.41 (2.1,5.5)	0.88 (0.4,1.8)	2.28 (1.1,4.6)	4.62 (2.7,8.1)	7.79 (5.1,11.8)	10.59 (7.0,16.1)	12.79 (8.4,19.5)	17.17 (10.7,27.6)
Other Hispanic	2.75 (1.8,4.3)	0.80 (0.4,1.7)	1.95 (1.0,3.7)	3.73 (2.3,6.0)	6.05 (3.8,9.6)	7.97 (4.7,13.4)	10.12 (6.2,16.4)	13.47 (7.5,24.1)
White	3.40 (2.2,5.3)	0.90 (0.4,1.9)	2.18 (1.2,3.9)	4.46 (2.8,7.1)	7.88 (5.2,11.9)	10.93 (7.0,17.0)	13.07 (8.5,20.0)	18.04 (11.7,27.7)
Black	4.23 (2.9,6.1)	1.31 (0.7,2.5)	2.95 (1.8,4.7)	5.66 (3.9,8.2)	9.43 (6.6,13.5)	12.40 (8.4,18.4)	14.99 (9.8,23.0)	20.87 (12.9,33.9)
Other race	8.97 (4.7,17.3)	3.35 (1.3,8.6)	7.04 (3.0,16.4)	12.12 (6.3,23.3)	19.19 (10.2,36.2)	23.47 (13.6,40.4)	27.95 (15.6,49.9)	35.78 (20.1,63.8)

Table C-50. Trophic level 3 marine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.67 (1.5,4.8)	0.68 (0.3,1.6)	1.59 (0.8,3.1)	3.32 (1.9,5.7)	6.13 (3.6,10.4)	9.03 (4.8,17.1)	11.22 (5.8,21.9)	16.34 (8.1,32.8)
Northeast	4.44 (2.6,7.5)	1.14 (0.6,2.1)	2.85 (1.6,4.9)	5.87 (3.5,9.9)	10.31 (6.1,17.5)	14.12 (8.1,24.5)	16.75 (9.8,28.5)	25.67 (11.7,56.4)
South	3.91 (2.6,5.9)	1.09 (0.5,2.2)	2.58 (1.5,4.5)	5.13 (3.3,7.9)	8.94 (6.1,13.1)	12.23 (8.2,18.2)	14.73 (9.9,22.0)	20.87 (13.1,33.3)
West	4.44 (2.7,7.4)	1.29 (0.6,3.0)	2.98 (1.5,6.0)	5.83 (3.4,10.0)	10.29 (6.2,17.1)	13.72 (8.7,21.7)	16.36 (10.6,25.3)	22.21 (14.6,33.8)
<b>Coastal Status</b>								
Noncoastal	3.64 (1.9,6.9)	0.89 (0.4,2.1)	2.24 (1.1,4.7)	4.75 (2.4,9.4)	8.66 (4.5,16.6)	12.02 (6.3,23.0)	14.46 (7.9,26.5)	20.81 (11.3,38.3)
Coastal	4.06 (3.0,5.6)	1.16 (0.7,1.9)	2.67 (1.8,3.9)	5.31 (3.9,7.3)	9.34 (6.8,12.8)	12.78 (9.0,18.2)	15.49 (10.6,22.7)	21.43 (13.6,33.8)
<b>Coastal/Inland Region</b>								
Pacific	4.16 (2.9,5.9)	1.16 (0.7,2.0)	2.66 (1.7,4.1)	5.45 (3.8,7.9)	9.70 (6.8,13.8)	13.40 (9.2,19.4)	16.04 (10.7,24.1)	22.32 (14.2,35.2)
Atlantic	4.35 (2.8,6.7)	1.28 (0.7,2.3)	2.87 (1.7,4.8)	5.62 (3.6,8.9)	9.88 (6.5,15.1)	13.60 (8.8,21.1)	16.49 (10.5,26.0)	22.95 (13.3,39.7)
Gulf of Mexico	4.28 (2.7,6.8)	1.39 (0.5,3.8)	2.95 (1.6,5.6)	5.79 (3.4,9.8)	9.43 (6.2,14.3)	12.28 (8.3,18.3)	14.63 (9.7,22.0)	20.87 (11.9,36.5)
Great Lakes	2.78 (1.7,4.4)	0.79 (0.4,1.4)	1.84 (1.1,3.0)	3.61 (2.2,5.9)	6.07 (3.5,10.6)	8.48 (4.9,14.6)	10.59 (6.3,17.9)	14.99 (8.1,27.7)
Inland Northeast	4.24 (2.1,8.7)	0.96 (0.5,1.8)	2.61 (1.4,5.0)	5.50 (2.8,10.7)	9.98 (4.8,20.9)	13.70 (6.3,29.9)	16.00 (7.8,32.8)	25.71 (8.8,74.8)
Inland Midwest	2.65 (1.1,6.1)	0.66 (0.2,1.9)	1.55 (0.7,3.6)	3.24 (1.5,7.0)	6.13 (2.8,13.6)	9.21 (3.5,24.3)	11.48 (4.3,30.7)	16.70 (6.2,44.9)
Inland South	3.74 (2.1,6.8)	0.97 (0.4,2.3)	2.41 (1.1,5.2)	4.93 (2.6,9.4)	8.55 (5.0,14.7)	11.84 (6.9,20.4)	14.53 (8.2,25.7)	20.24 (11.7,35.0)
Inland West	4.73 (1.9,11.7)	1.47 (0.4,5.4)	3.31 (1.0,10.5)	6.31 (2.4,16.5)	10.73 (4.5,25.5)	14.22 (6.4,31.4)	16.85 (8.0,35.5)	21.68 (12.0,39.1)

Table C-51. Trophic level 3 marine fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	1.63 (1.0,2.7)	0.26 (0.1,0.6)	0.77 (0.4,1.6)	1.97 (1.1,3.5)	4.14 (2.4,7.1)	6.05 (3.8,9.7)	7.74 (4.8,12.4)	11.83 (7.5,18.7)
<b>Gender</b>								
Female	1.40 (0.8,2.4)	0.23 (0.1,0.5)	0.67 (0.3,1.5)	1.74 (0.9,3.3)	3.56 (2.1,6.1)	5.12 (3.2,8.1)	6.41 (4.2,9.9)	9.70 (6.2,15.1)
Male	1.87 (1.1,3.2)	0.31 (0.1,0.7)	0.89 (0.5,1.7)	2.28 (1.2,4.2)	4.76 (2.7,8.5)	7.03 (4.1,12.1)	8.85 (5.3,14.7)	13.25 (8.4,21.0)
<b>Age</b>								
1 to <3 yrs	1.01 (0.6,1.7)	0.17 (0.1,0.4)	0.50 (0.2,1.1)	1.24 (0.7,2.3)	2.55 (1.5,4.4)	3.66 (2.2,6.0)	4.54 (2.8,7.3)	6.64 (4.0,11.1)
3 to <6 yrs	1.33 (0.6,2.9)	0.24 (0.1,0.8)	0.68 (0.2,2.1)	1.68 (0.7,4.2)	3.37 (1.5,7.6)	4.76 (2.4,9.6)	6.12 (3.0,12.5)	9.15 (4.7,17.9)
6 to <11 yrs	2.16 (0.8,5.6)	0.37 (0.1,1.2)	1.07 (0.3,3.4)	2.77 (0.9,8.4)	5.50 (2.1,14.6)	7.75 (3.3,18.3)	9.54 (4.4,20.9)	14.29 (6.9,29.7)
11 to <16 yrs	1.48 (0.9,2.6)	0.25 (0.1,0.5)	0.70 (0.4,1.3)	1.81 (1.0,3.2)	3.58 (2.1,6.1)	5.48 (3.1,9.6)	6.87 (4.0,11.8)	10.84 (5.8,20.2)
16 to <18 yrs	1.46 (0.8,2.6)	0.24 (0.1,0.5)	0.72 (0.4,1.5)	1.81 (1.0,3.4)	3.83 (2.0,7.4)	5.35 (3.0,9.5)	6.30 (3.7,10.8)	9.95 (5.5,18.0)
18 to <21 yrs	2.03 (1.2,3.4)	0.30 (0.1,0.7)	0.94 (0.5,1.8)	2.54 (1.4,4.5)	5.23 (3.0,9.0)	7.49 (4.4,12.8)	9.81 (5.7,16.8)	14.88 (8.6,25.9)
<b>Income</b>								
<\$20,000	1.78 (1.2,2.7)	0.29 (0.2,0.5)	0.82 (0.5,1.3)	2.14 (1.4,3.3)	4.54 (3.0,6.8)	6.63 (4.3,10.3)	8.32 (5.2,13.4)	12.99 (8.0,21.0)
>\$20,000	1.56 (0.9,2.9)	0.25 (0.1,0.6)	0.74 (0.3,1.6)	1.90 (1.0,3.7)	3.96 (2.1,7.4)	5.82 (3.3,10.4)	7.34 (4.2,12.7)	11.22 (6.5,19.3)
Income unknown	2.39 (0.8,6.7)	0.43 (0.1,1.6)	1.30 (0.3,5.5)	3.42 (0.7,15.8)	5.84 (2.1,16.2)	7.93 (3.4,18.4)	9.22 (4.4,19.4)	13.66 (6.1,30.5)
<b>Income, finer detail</b>								
<\$20,000	1.78 (1.2,2.7)	0.29 (0.2,0.5)	0.82 (0.5,1.3)	2.14 (1.4,3.3)	4.54 (3.0,6.8)	6.63 (4.3,10.3)	8.32 (5.2,13.4)	12.99 (8.0,21.0)
\$20k-\$45k	1.56 (0.8,3.1)	0.26 (0.1,0.7)	0.76 (0.3,1.9)	1.92 (0.9,4.3)	3.84 (2.0,7.4)	5.83 (2.9,11.6)	7.21 (4.0,13.1)	11.27 (5.9,21.5)
\$45k-\$75k	1.54 (0.9,2.8)	0.25 (0.1,0.6)	0.72 (0.3,1.7)	1.86 (1.0,3.6)	3.93 (2.2,7.1)	5.77 (3.4,9.8)	7.65 (4.1,14.1)	10.87 (6.9,17.2)
\$75k+	1.55 (0.9,2.8)	0.24 (0.1,0.5)	0.72 (0.4,1.4)	1.88 (1.0,3.5)	3.98 (2.1,7.6)	5.74 (3.2,10.2)	7.27 (4.1,12.8)	11.86 (5.6,24.9)
>\$20,000	2.15 (0.7,7.1)	0.41 (0.1,1.8)	1.31 (0.2,7.1)	2.69 (0.8,9.1)	5.05 (1.6,15.5)	6.44 (2.5,16.4)	9.06 (2.8,29.2)	15.94 (3.6,71.0)
Inc Ref/DK	2.62 (0.5,12.5)	0.46 (0.1,2.0)	1.41 (0.2,8.4)	3.60 (0.5,23.8)	6.34 (1.3,30.4)	9.05 (2.0,40.2)	10.53 (3.0,37.4)	19.90 (2.9,136.4)
Inc missing	2.08 (0.6,6.8)	0.35 (0.1,1.6)	1.12 (0.2,5.1)	3.14 (0.7,15.1)	5.23 (1.4,19.1)	6.67 (2.0,22.8)	7.79 (2.1,29.0)	11.84 (2.8,50.4)
<b>Race/Ethnicity</b>								
Mexican American	1.53 (0.9,2.6)	0.28 (0.1,0.6)	0.75 (0.4,1.4)	1.88 (1.1,3.3)	3.83 (2.2,6.7)	5.51 (3.3,9.2)	6.89 (4.3,11.1)	10.78 (6.4,18.1)
Other Hispanic	1.20 (0.7,2.1)	0.19 (0.1,0.4)	0.56 (0.3,1.1)	1.57 (0.8,3.3)	3.21 (1.6,6.3)	4.58 (2.4,8.7)	5.63 (3.2,9.9)	7.42 (4.6,12.1)
White	1.34 (0.8,2.3)	0.22 (0.1,0.5)	0.64 (0.3,1.4)	1.67 (0.8,3.3)	3.43 (1.9,6.2)	4.88 (3.0,7.9)	6.15 (3.9,9.6)	9.52 (5.9,15.4)
Black	1.86 (1.3,2.8)	0.41 (0.2,0.8)	1.09 (0.6,1.8)	2.45 (1.6,3.7)	4.45 (3.0,6.6)	6.18 (4.0,9.6)	7.80 (5.0,12.1)	10.93 (6.5,18.5)
Other race	4.09 (1.9,8.9)	0.85 (0.3,2.6)	2.48 (0.9,6.6)	5.92 (2.1,16.5)	9.70 (4.8,19.5)	12.99 (6.9,24.4)	15.32 (8.4,27.8)	20.55 (11.8,35.9)

Table C-51. Trophic level 3 marine fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.10 (0.6,1.9)	0.17 (0.1,0.4)	0.49 (0.2,1.0)	1.30 (0.7,2.5)	2.63 (1.6,4.4)	4.13 (2.4,7.1)	5.42 (3.1,9.4)	8.79 (4.9,15.7)
Northeast	1.86 (1.1,3.3)	0.33 (0.1,0.8)	0.92 (0.5,1.8)	2.30 (1.3,4.2)	4.68 (2.6,8.4)	6.62 (3.9,11.2)	7.99 (4.9,13.0)	11.74 (7.0,19.8)
South	1.56 (1.0,2.4)	0.29 (0.1,0.6)	0.82 (0.4,1.6)	1.98 (1.2,3.3)	3.90 (2.5,6.1)	5.47 (3.6,8.3)	6.78 (4.4,10.5)	10.06 (6.2,16.4)
West	2.09 (1.0,4.2)	0.33 (0.1,0.8)	0.99 (0.4,2.4)	2.66 (1.1,6.5)	5.39 (2.5,11.7)	7.87 (3.9,15.9)	9.93 (5.1,19.3)	14.29 (8.4,24.4)
<b>Coastal Status</b>								
Noncoastal	1.54 (0.8,3.1)	0.25 (0.1,0.6)	0.71 (0.3,1.7)	1.85 (0.9,4.0)	3.93 (1.9,8.3)	5.76 (3.0,11.2)	7.36 (3.9,14.0)	11.31 (6.1,20.9)
Coastal	1.77 (1.2,2.5)	0.30 (0.2,0.5)	0.87 (0.5,1.4)	2.18 (1.5,3.2)	4.50 (3.1,6.5)	6.48 (4.5,9.4)	8.05 (5.5,11.9)	12.58 (8.2,19.2)
<b>Coastal/Inland Region</b>								
Pacific	1.93 (1.3,2.9)	0.27 (0.1,0.5)	0.82 (0.5,1.4)	2.35 (1.5,3.8)	5.24 (3.2,8.7)	7.62 (4.7,12.3)	9.81 (5.9,16.4)	13.28 (7.7,23.0)
Atlantic	1.84 (1.1,3.0)	0.34 (0.2,0.6)	0.97 (0.5,1.7)	2.28 (1.4,3.8)	4.54 (2.8,7.3)	6.38 (3.8,10.7)	7.97 (4.6,13.7)	12.58 (7.2,21.9)
Gulf of Mexico	1.78 (1.0,3.2)	0.37 (0.1,0.9)	1.06 (0.4,2.6)	2.49 (1.1,5.4)	4.45 (2.4,8.1)	5.67 (3.0,10.6)	6.67 (3.3,13.3)	9.16 (3.5,23.9)
Great Lakes	1.29 (0.7,2.3)	0.21 (0.1,0.4)	0.60 (0.3,1.1)	1.46 (0.8,2.7)	3.17 (1.8,5.6)	5.07 (3.0,8.6)	6.73 (3.8,11.8)	9.32 (4.1,21.1)
Inland Northeast	1.74 (0.9,3.4)	0.31 (0.1,0.8)	0.81 (0.4,1.6)	2.15 (1.1,4.2)	4.53 (2.2,9.2)	6.23 (3.3,11.9)	7.79 (4.0,15.3)	11.61 (5.8,23.1)
Inland Midwest	1.04 (0.4,2.5)	0.16 (0.1,0.4)	0.47 (0.2,1.2)	1.26 (0.5,3.2)	2.48 (1.2,5.3)	3.89 (1.7,9.1)	5.06 (2.1,12.1)	8.29 (3.2,21.5)
Inland South	1.44 (0.8,2.5)	0.26 (0.1,0.5)	0.70 (0.4,1.4)	1.82 (1.0,3.5)	3.65 (2.0,6.6)	5.12 (3.1,8.5)	6.55 (3.8,11.3)	9.72 (5.6,17.0)
Inland West	2.23 (0.7,7.0)	0.39 (0.1,1.5)	1.13 (0.3,4.5)	2.90 (0.8,11.2)	5.50 (1.8,17.1)	8.13 (2.7,24.1)	9.93 (3.7,26.6)	14.99 (5.9,38.4)

Table C-52. Trophic level 4 marine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	5.84 (4.4,7.7)	1.07 (0.6,1.9)	3.31 (2.2,5.0)	7.61 (5.6,10.3)	14.38 (10.9,19.0)	20.21 (15.3,26.8)	24.88 (18.7,33.0)	35.99 (26.5,48.9)
<b>Gender</b>								
Female	5.61 (4.2,7.5)	1.02 (0.6,1.8)	3.18 (2.1,4.8)	7.36 (5.3,10.1)	13.82 (10.4,18.4)	19.17 (14.4,25.6)	23.61 (17.6,31.7)	34.12 (24.8,47.0)
Male	6.13 (4.6,8.2)	1.14 (0.6,2.1)	3.50 (2.3,5.4)	7.93 (5.7,11.0)	15.15 (11.2,20.5)	21.24 (15.6,28.9)	26.31 (19.4,35.7)	37.98 (27.5,52.4)
<b>Age</b>								
1 to <3 yrs	1.52 (0.9,2.6)	0.22 (0.1,0.5)	0.71 (0.4,1.4)	1.86 (1.1,3.2)	3.79 (2.3,6.2)	5.79 (3.3,10.1)	7.39 (4.2,12.9)	11.83 (6.1,23.0)
3 to <6 yrs	2.12 (1.2,3.9)	0.31 (0.1,0.7)	1.07 (0.5,2.5)	2.71 (1.4,5.4)	5.34 (3.0,9.6)	7.68 (4.4,13.3)	9.35 (5.8,15.2)	14.08 (8.7,22.8)
6 to <11 yrs	3.21 (1.6,6.3)	0.53 (0.2,1.5)	1.54 (0.7,3.4)	4.10 (2.0,8.6)	8.27 (4.1,16.6)	11.53 (6.2,21.5)	14.17 (7.7,25.9)	21.93 (11.1,43.3)
11 to <16 yrs	2.56 (1.3,4.9)	0.40 (0.2,0.9)	1.19 (0.6,2.5)	3.09 (1.6,5.9)	6.48 (3.3,12.6)	9.83 (4.8,20.0)	12.41 (6.1,25.1)	18.65 (9.3,37.3)
16 to <18 yrs	3.65 (2.1,6.5)	0.51 (0.3,1.0)	1.78 (0.8,3.9)	4.81 (2.3,10.0)	9.51 (5.1,17.8)	13.90 (7.5,25.6)	17.52 (9.3,33.1)	22.40 (13.5,37.2)
18 to <21 yrs	6.01 (3.3,11.0)	0.89 (0.4,1.9)	3.08 (1.4,6.6)	7.54 (4.1,13.9)	15.84 (8.1,30.9)	21.18 (12.0,37.5)	25.68 (14.9,44.2)	39.14 (22.0,69.6)
21 to <35 yrs	5.88 (4.3,8.1)	1.24 (0.7,2.3)	3.54 (2.2,5.7)	7.76 (5.4,11.2)	14.09 (10.2,19.5)	19.40 (13.9,27.0)	23.98 (17.2,33.5)	35.16 (24.0,51.4)
35 to <50 yrs	6.41 (4.8,8.5)	1.66 (1.1,2.6)	4.14 (2.9,5.9)	8.43 (6.3,11.3)	14.97 (11.0,20.4)	20.68 (15.3,27.9)	25.12 (18.3,34.4)	35.77 (25.4,50.3)
50 to <65 yrs	9.31 (6.2,13.9)	2.86 (1.4,5.8)	6.29 (3.8,10.5)	12.33 (8.2,18.6)	20.99 (14.6,30.1)	28.40 (19.8,40.7)	33.54 (23.7,47.5)	49.11 (31.0,77.8)
65+ yrs	6.37 (4.1,10.0)	1.65 (0.9,2.9)	4.00 (2.3,6.9)	8.30 (5.1,13.6)	15.10 (9.9,23.1)	20.41 (13.0,31.9)	25.47 (17.2,37.7)	35.53 (23.6,53.4)
<b>Income</b>								
<\$20,000	4.30 (3.2,5.8)	0.71 (0.4,1.3)	2.26 (1.4,3.5)	5.48 (3.9,7.7)	10.80 (8.0,14.6)	15.36 (11.2,21.1)	18.90 (13.4,26.7)	28.08 (19.5,40.5)
>\$20,000	6.13 (4.6,8.1)	1.18 (0.7,2.1)	3.55 (2.4,5.3)	8.00 (5.9,10.9)	15.07 (11.4,20.0)	20.98 (15.8,27.9)	25.89 (19.5,34.4)	36.95 (27.1,50.3)
Income unknown	6.28 (3.4,11.7)	1.23 (0.4,4.3)	3.63 (1.4,9.5)	8.11 (4.0,16.4)	15.16 (8.6,26.7)	20.46 (12.7,33.1)	25.27 (15.5,41.2)	42.33 (21.3,83.9)
<b>Income, finer detail</b>								
<\$20,000	4.30 (3.2,5.8)	0.71 (0.4,1.3)	2.26 (1.4,3.5)	5.48 (3.9,7.7)	10.80 (8.0,14.6)	15.36 (11.2,21.1)	18.90 (13.4,26.7)	28.08 (19.5,40.5)
\$20k-\$45k	4.97 (3.6,6.8)	0.93 (0.5,1.7)	2.76 (1.8,4.1)	6.44 (4.6,9.0)	12.05 (8.6,16.9)	17.22 (12.1,24.5)	20.95 (14.4,30.5)	31.52 (21.9,45.4)
\$45k-\$75k	5.70 (4.0,8.1)	1.06 (0.6,1.8)	3.17 (2.1,4.8)	7.34 (5.0,10.7)	14.02 (9.8,20.2)	20.11 (14.0,28.8)	24.98 (17.5,35.8)	36.18 (24.7,52.9)
\$75k+	7.34 (5.4,9.9)	1.61 (0.8,3.1)	4.60 (2.9,7.4)	9.75 (7.1,13.5)	17.65 (13.3,23.4)	24.01 (18.4,31.3)	28.96 (22.0,38.2)	41.16 (30.6,55.3)
>\$20,000	6.52 (3.9,10.8)	1.56 (0.6,4.1)	4.27 (1.9,9.4)	8.38 (5.0,14.1)	15.43 (9.4,25.3)	20.31 (12.4,33.3)	26.14 (15.8,43.3)	38.46 (21.6,68.6)
Inc Ref/DK	6.00 (2.8,12.7)	1.26 (0.3,5.0)	3.62 (1.3,10.3)	7.74 (3.6,16.6)	15.06 (6.8,33.3)	19.24 (10.8,34.4)	22.36 (13.5,36.9)	35.36 (17.2,72.6)
Inc missing	6.81 (3.2,14.6)	1.17 (0.3,4.6)	3.69 (1.2,11.5)	8.54 (3.7,20.0)	15.83 (7.7,32.8)	21.93 (10.2,47.3)	28.67 (14.5,56.7)	63.32 (15.2,263.7)
<b>Race/Ethnicity</b>								
Mexican American	4.61 (3.1,7.0)	0.72 (0.4,1.4)	2.35 (1.4,4.1)	5.79 (3.7,9.0)	11.68 (7.5,18.2)	16.86 (11.1,25.5)	21.40 (14.1,32.6)	31.45 (20.9,47.3)
Other Hispanic	4.43 (2.9,6.9)	0.76 (0.4,1.6)	2.45 (1.4,4.1)	5.66 (3.5,9.2)	10.84 (6.6,17.9)	15.83 (10.0,25.1)	19.24 (11.8,31.3)	27.54 (16.3,46.5)
White	6.11 (4.5,8.2)	1.16 (0.6,2.1)	3.53 (2.3,5.4)	7.99 (5.8,11.0)	15.06 (11.2,20.2)	20.87 (15.5,28.2)	25.63 (18.9,34.7)	37.00 (26.8,51.0)
Black	4.85 (3.6,6.6)	0.98 (0.5,1.8)	2.81 (1.8,4.4)	6.30 (4.5,8.9)	11.61 (8.5,15.8)	16.27 (11.9,22.2)	20.70 (15.3,28.0)	30.82 (22.6,42.1)
Other race	8.05 (6.0,10.9)	1.78 (1.0,3.0)	5.33 (3.4,8.3)	10.86 (7.7,15.3)	19.21 (14.1,26.2)	25.55 (18.8,34.8)	30.40 (21.8,42.4)	41.16 (27.2,62.4)

Table C-52. Trophic level 4 marine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.38 (3.0,6.3)	0.81 (0.4,1.7)	2.49 (1.4,4.3)	5.73 (3.7,8.8)	10.58 (7.4,15.2)	15.49 (10.9,22.0)	18.57 (12.9,26.7)	26.50 (17.8,39.4)
Northeast	7.58 (5.5,10.5)	1.44 (0.8,2.5)	4.50 (3.0,6.8)	10.21 (7.2,14.5)	18.36 (13.1,25.8)	25.60 (18.3,35.8)	30.78 (21.8,43.5)	44.96 (31.0,65.2)
South	5.23 (4.0,6.8)	0.97 (0.6,1.7)	2.95 (2.0,4.4)	6.84 (5.0,9.3)	12.65 (9.6,16.7)	17.97 (13.6,23.7)	22.34 (16.9,29.6)	32.35 (24.1,43.4)
West	7.10 (5.1,10.0)	1.48 (0.8,2.8)	4.37 (2.7,7.0)	9.46 (6.6,13.5)	16.88 (12.1,23.5)	23.05 (16.6,32.1)	28.67 (20.6,39.9)	40.28 (28.1,57.7)
<b>Coastal Status</b>								
Noncoastal	5.82 (4.0,8.4)	1.04 (0.5,2.1)	3.26 (1.9,5.6)	7.53 (5.1,11.2)	14.37 (10.1,20.4)	20.21 (14.4,28.3)	25.13 (17.7,35.6)	36.34 (25.2,52.3)
Coastal	5.88 (4.2,8.2)	1.12 (0.7,1.9)	3.41 (2.3,5.1)	7.75 (5.4,11.0)	14.42 (10.2,20.4)	20.22 (14.3,28.6)	24.58 (17.2,35.2)	35.13 (24.4,50.6)
<b>Coastal/Inland Region</b>								
Pacific	6.15 (4.3,8.9)	1.13 (0.6,2.0)	3.57 (2.2,5.8)	8.17 (5.5,12.2)	15.16 (10.5,21.8)	20.80 (14.2,30.5)	25.45 (17.7,36.7)	37.10 (27.1,50.8)
Atlantic	6.51 (4.0,10.5)	1.41 (0.8,2.6)	3.90 (2.3,6.7)	8.64 (5.3,14.1)	15.87 (9.9,25.4)	22.06 (13.9,34.9)	26.49 (16.5,42.6)	37.52 (23.1,61.0)
Gulf of Mexico	5.01 (3.0,8.4)	0.96 (0.5,1.9)	2.76 (1.6,4.6)	6.50 (3.8,11.1)	12.20 (7.3,20.4)	16.69 (10.4,26.7)	20.61 (12.7,33.5)	28.63 (18.0,45.5)
Great Lakes	4.42 (2.6,7.6)	0.80 (0.4,1.5)	2.61 (1.5,4.5)	5.85 (3.4,10.1)	10.45 (5.4,20.1)	15.29 (8.7,26.9)	18.73 (10.5,33.4)	25.56 (12.4,52.9)
Inland Northeast	7.98 (5.0,12.7)	1.31 (0.6,2.7)	4.60 (2.6,8.1)	10.84 (6.6,17.8)	19.89 (12.6,31.4)	27.59 (17.4,43.7)	33.63 (21.2,53.4)	49.04 (27.7,86.7)
Inland Midwest	4.37 (2.7,7.1)	0.82 (0.3,2.0)	2.47 (1.3,4.7)	5.69 (3.3,10.0)	10.58 (6.8,16.6)	15.54 (9.6,25.2)	18.55 (12.0,28.7)	26.56 (17.2,40.9)
Inland South	4.91 (3.5,7.0)	0.87 (0.5,1.7)	2.76 (1.7,4.6)	6.43 (4.3,9.6)	12.00 (8.6,16.8)	16.82 (12.2,23.3)	21.10 (15.0,29.6)	30.07 (21.5,42.1)
Inland West	8.04 (4.5,14.5)	1.96 (0.6,6.7)	5.30 (2.3,12.4)	10.68 (6.0,19.1)	18.42 (11.2,30.3)	26.30 (15.1,45.7)	31.89 (18.7,54.3)	43.36 (26.2,71.7)

Table C-53. Trophic level 4 marine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	6.92 (5.3,9.1)	1.72 (1.1,2.8)	4.36 (3.0,6.2)	9.10 (6.8,12.2)	16.18 (12.2,21.5)	22.23 (16.7,29.7)	27.42 (20.6,36.4)	38.50 (28.2,52.6)
<b>Gender</b>								
Female	6.60 (5.0,8.8)	1.61 (1.0,2.6)	4.17 (2.9,6.1)	8.74 (6.5,11.8)	15.52 (11.7,20.6)	21.39 (15.9,28.7)	26.14 (19.3,35.3)	36.56 (26.2,50.9)
Male	7.32 (5.4,10.0)	1.86 (1.1,3.1)	4.64 (3.2,6.8)	9.57 (6.8,13.4)	16.97 (12.1,23.8)	23.59 (17.1,32.5)	29.29 (21.5,39.9)	40.78 (29.0,57.4)
<b>Age</b>								
21 to <35 yrs	5.88 (4.3,8.1)	1.24 (0.7,2.3)	3.54 (2.2,5.7)	7.76 (5.4,11.2)	14.09 (10.2,19.5)	19.40 (13.9,27.0)	23.98 (17.2,33.5)	35.16 (24.0,51.4)
35 to <50 yrs	6.41 (4.8,8.5)	1.66 (1.1,2.6)	4.14 (2.9,5.9)	8.43 (6.3,11.3)	14.97 (11.0,20.4)	20.68 (15.3,27.9)	25.12 (18.3,34.4)	35.77 (25.4,50.3)
50 to <65 yrs	9.31 (6.2,13.9)	2.86 (1.4,5.8)	6.29 (3.8,10.5)	12.33 (8.2,18.6)	20.99 (14.6,30.1)	28.40 (19.8,40.7)	33.54 (23.7,47.5)	49.11 (31.0,77.8)
65+ yrs	6.37 (4.1,10.0)	1.65 (0.9,2.9)	4.00 (2.3,6.9)	8.30 (5.1,13.6)	15.10 (9.9,23.1)	20.41 (13.0,31.9)	25.47 (17.2,37.7)	35.53 (23.6,53.4)
<b>WCA (13-49 years)</b>	5.44 (4.1,7.2)	1.06 (0.6,1.8)	3.22 (2.1,4.8)	7.28 (5.3,10.0)	13.13 (10.0,17.3)	18.01 (13.5,24.0)	22.07 (16.4,29.7)	31.85 (22.7,44.7)
<b>Income</b>								
<\$20,000	5.06 (3.7,6.9)	1.01 (0.6,1.8)	2.93 (1.9,4.5)	6.62 (4.8,9.2)	12.29 (9.0,16.7)	17.23 (12.5,23.7)	21.26 (15.2,29.7)	31.10 (21.5,44.9)
>\$20,000	7.25 (5.5,9.5)	1.89 (1.2,3.0)	4.67 (3.3,6.7)	9.51 (7.1,12.8)	16.78 (12.6,22.4)	23.09 (17.3,30.8)	28.37 (21.2,37.9)	39.36 (28.7,54.0)
Income unknown	7.24 (3.9,13.3)	1.71 (0.6,5.3)	4.49 (2.0,10.2)	9.28 (4.9,17.4)	16.60 (9.7,28.3)	21.89 (13.6,35.2)	28.04 (16.6,47.5)	49.04 (18.7,128.8)
<b>Income, finer detail</b>								
<\$20,000	5.06 (3.7,6.9)	1.01 (0.6,1.8)	2.93 (1.9,4.5)	6.62 (4.8,9.2)	12.29 (9.0,16.7)	17.23 (12.5,23.7)	21.26 (15.2,29.7)	31.10 (21.5,44.9)
\$20k-\$45k	5.80 (4.2,8.0)	1.39 (0.9,2.3)	3.65 (2.5,5.3)	7.56 (5.4,10.6)	13.70 (9.8,19.2)	18.42 (12.4,27.3)	22.70 (15.4,33.5)	33.88 (23.5,48.8)
\$45k-\$75k	6.71 (4.7,9.5)	1.67 (1.0,2.7)	4.14 (2.8,6.2)	8.76 (6.0,12.7)	15.70 (10.9,22.7)	21.88 (15.1,31.6)	27.22 (19.1,38.9)	37.98 (25.6,56.3)
\$75k+	8.82 (6.7,11.7)	2.69 (1.6,4.6)	6.08 (4.1,9.1)	11.59 (8.6,15.6)	20.08 (15.3,26.3)	26.86 (20.5,35.3)	31.75 (23.8,42.4)	44.86 (33.0,61.1)
>\$20,000	7.30 (4.6,11.7)	2.17 (1.0,4.9)	5.00 (2.8,9.0)	9.33 (5.6,15.6)	16.44 (10.1,26.7)	21.97 (13.1,36.9)	29.01 (17.3,48.6)	38.75 (21.9,68.4)
Inc Ref/DK	6.68 (3.5,12.9)	1.66 (0.5,5.2)	4.29 (1.8,10.2)	8.70 (4.4,17.1)	15.31 (8.6,27.1)	20.58 (12.0,35.3)	25.27 (14.6,43.6)	42.38 (15.6,114.9)
Inc missing	8.48 (3.7,19.6)	1.83 (0.4,8.1)	5.10 (1.6,16.3)	10.60 (4.4,25.4)	18.46 (8.7,39.2)	28.04 (13.0,60.3)	35.71 (16.5,77.4)	68.66 (13.9,339.5)
<b>Race/Ethnicity</b>								
Mexican American	5.78 (3.9,8.5)	1.24 (0.6,2.4)	3.38 (2.1,5.4)	7.40 (5.0,11.0)	14.01 (9.3,21.2)	19.72 (13.2,29.4)	24.55 (16.1,37.5)	34.41 (23.6,50.2)
Other Hispanic	5.54 (3.5,8.7)	1.39 (0.7,2.6)	3.43 (2.0,5.8)	7.20 (4.3,12.0)	12.98 (7.9,21.4)	18.20 (11.4,29.1)	21.51 (12.7,36.4)	33.58 (22.5,50.2)
White	7.09 (5.3,9.5)	1.79 (1.1,3.0)	4.50 (3.1,6.5)	9.35 (6.9,12.7)	16.50 (12.2,22.3)	22.65 (16.7,30.7)	28.04 (20.7,37.9)	38.98 (28.1,54.1)
Black	5.91 (4.4,8.0)	1.52 (0.9,2.7)	3.73 (2.5,5.6)	7.77 (5.5,10.9)	13.41 (9.7,18.5)	19.10 (14.2,25.6)	23.74 (17.5,32.1)	33.83 (24.3,47.1)
Other race	9.62 (7.0,13.2)	3.04 (1.8,5.1)	6.86 (4.6,10.2)	12.87 (8.9,18.7)	21.44 (15.3,30.0)	27.52 (18.7,40.4)	34.12 (23.9,48.8)	44.54 (29.0,68.4)

Table C-53. Trophic level 4 marine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	5.19 (3.6,7.5)	1.31 (0.7,2.4)	3.31 (2.0,5.3)	6.84 (4.6,10.2)	11.92 (8.3,17.2)	16.78 (11.7,24.1)	20.01 (13.6,29.5)	28.75 (19.5,42.5)
Northeast	8.91 (6.5,12.3)	2.21 (1.3,3.7)	5.72 (3.8,8.5)	12.07 (8.7,16.8)	21.11 (15.3,29.1)	28.71 (20.7,39.8)	33.93 (24.2,47.6)	49.04 (33.4,71.9)
South	6.26 (4.8,8.2)	1.57 (1.0,2.6)	3.92 (2.8,5.6)	8.20 (6.1,11.0)	14.50 (10.9,19.2)	20.36 (15.4,26.9)	24.64 (18.6,32.5)	35.19 (25.8,48.0)
West	8.39 (6.0,11.7)	2.40 (1.4,4.2)	5.75 (3.7,8.9)	11.11 (7.9,15.7)	19.02 (13.8,26.3)	26.41 (18.8,37.2)	31.71 (22.3,45.1)	42.98 (29.8,61.9)
<b>Coastal Status</b>								
Noncoastal	6.88 (4.9,9.6)	1.66 (0.9,3.0)	4.28 (2.7,6.7)	9.02 (6.3,12.9)	16.10 (11.6,22.3)	22.22 (16.0,30.9)	27.89 (19.6,39.6)	38.50 (27.0,54.8)
Coastal	6.99 (4.9,10.0)	1.83 (1.1,3.1)	4.49 (2.9,6.8)	9.23 (6.3,13.4)	16.30 (11.3,23.4)	22.31 (15.5,32.0)	26.93 (18.7,38.8)	38.46 (27.2,54.4)
<b>Coastal/Inland Region</b>								
Pacific	7.29 (5.2,10.3)	1.82 (1.0,3.2)	4.66 (3.0,7.3)	9.65 (6.6,14.2)	17.09 (12.2,24.0)	22.83 (15.7,33.1)	27.93 (19.9,39.3)	41.12 (30.0,56.3)
Atlantic	7.66 (4.6,12.6)	2.12 (1.1,4.2)	4.96 (2.7,9.0)	10.19 (6.1,17.0)	17.73 (10.8,29.1)	23.96 (14.7,39.0)	29.46 (18.5,46.8)	40.34 (24.6,66.1)
Gulf of Mexico	5.93 (3.7,9.6)	1.47 (0.8,2.6)	3.67 (2.3,5.9)	7.90 (4.7,13.4)	13.58 (8.4,22.0)	17.80 (11.3,28.1)	22.38 (13.8,36.4)	34.69 (17.7,67.9)
Great Lakes	5.39 (3.0,9.6)	1.40 (0.7,3.0)	3.64 (2.1,6.4)	7.08 (3.9,12.9)	12.02 (6.0,24.0)	16.89 (9.0,31.8)	21.25 (12.6,35.7)	28.54 (15.1,54.1)
Inland Northeast	9.33 (6.0,14.4)	1.99 (1.0,3.9)	5.73 (3.4,9.5)	12.77 (8.0,20.3)	22.18 (14.4,34.1)	30.60 (19.3,48.6)	37.31 (22.8,61.2)	50.92 (30.7,84.5)
Inland Midwest	5.14 (3.3,8.0)	1.30 (0.6,2.6)	3.24 (1.8,5.7)	6.77 (4.2,11.0)	11.86 (8.0,17.7)	16.78 (11.0,25.7)	20.01 (13.2,30.3)	28.78 (18.4,45.0)
Inland South	5.93 (4.2,8.3)	1.45 (0.8,2.8)	3.75 (2.3,6.0)	7.69 (5.4,11.0)	13.90 (9.9,19.4)	19.35 (13.9,27.0)	23.30 (16.9,32.2)	33.88 (23.8,48.3)
Inland West	9.59 (5.4,16.9)	3.32 (1.0,10.6)	6.97 (3.2,15.1)	12.59 (7.3,21.8)	21.06 (12.7,34.9)	28.76 (16.9,48.9)	34.72 (20.4,59.0)	44.19 (27.7,70.5)

Table C-54. Trophic level 4 marine fish usual fish consumption rate estimates, youth <21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	3.17 (1.9,5.2)	0.44 (0.2,0.9)	1.37 (0.7,2.6)	3.79 (2.1,6.8)	8.02 (4.9,13.2)	12.15 (7.4,19.8)	15.96 (9.5,26.8)	23.22 (15.1,35.7)
<b>Gender</b>								
Female	2.89 (1.8,4.6)	0.41 (0.2,0.9)	1.25 (0.7,2.3)	3.48 (2.0,6.0)	7.41 (4.6,11.9)	11.06 (7.1,17.2)	14.49 (9.2,22.9)	20.71 (13.7,31.3)
Male	3.45 (2.0,5.9)	0.47 (0.2,1.0)	1.51 (0.8,3.0)	4.12 (2.2,7.7)	8.61 (5.1,14.6)	13.42 (7.4,24.3)	17.22 (9.8,30.3)	25.95 (15.6,43.2)
<b>Age</b>								
1 to <3 yrs	1.52 (0.9,2.6)	0.22 (0.1,0.5)	0.71 (0.4,1.4)	1.86 (1.1,3.2)	3.79 (2.3,6.2)	5.79 (3.3,10.1)	7.39 (4.2,12.9)	11.83 (6.1,23.0)
3 to <6 yrs	2.12 (1.2,3.9)	0.31 (0.1,0.7)	1.07 (0.5,2.5)	2.71 (1.4,5.4)	5.34 (3.0,9.6)	7.68 (4.4,13.3)	9.35 (5.8,15.2)	14.08 (8.7,22.8)
6 to <11 yrs	3.21 (1.6,6.3)	0.53 (0.2,1.5)	1.54 (0.7,3.4)	4.10 (2.0,8.6)	8.27 (4.1,16.6)	11.53 (6.2,21.5)	14.17 (7.7,25.9)	21.93 (11.1,43.3)
11 to <16 yrs	2.56 (1.3,4.9)	0.40 (0.2,0.9)	1.19 (0.6,2.5)	3.09 (1.6,5.9)	6.48 (3.3,12.6)	9.83 (4.8,20.0)	12.41 (6.1,25.1)	18.65 (9.3,37.3)
16 to <18 yrs	3.65 (2.1,6.5)	0.51 (0.3,1.0)	1.78 (0.8,3.9)	4.81 (2.3,10.0)	9.51 (5.1,17.8)	13.90 (7.5,25.6)	17.52 (9.3,33.1)	22.40 (13.5,37.2)
18 to <21 yrs	6.01 (3.3,11.0)	0.89 (0.4,1.9)	3.08 (1.4,6.6)	7.54 (4.1,13.9)	15.84 (8.1,30.9)	21.18 (12.0,37.5)	25.68 (14.9,44.2)	39.14 (22.0,69.6)
<b>Income</b>								
<\$20,000	2.72 (1.9,4.0)	0.38 (0.2,0.8)	1.16 (0.7,2.1)	3.31 (2.0,5.4)	6.96 (4.8,10.2)	10.44 (7.0,15.5)	13.35 (8.8,20.3)	21.13 (13.4,33.3)
>\$20,000	3.23 (1.9,5.5)	0.45 (0.2,0.9)	1.40 (0.7,2.7)	3.85 (2.1,7.0)	8.12 (4.8,13.8)	12.40 (7.2,21.3)	16.25 (9.2,28.6)	23.81 (15.0,37.8)
Income unknown	4.09 (1.8,9.2)	0.58 (0.2,1.8)	2.01 (0.6,7.2)	4.84 (1.8,12.9)	10.51 (4.0,27.8)	16.63 (6.2,44.8)	19.54 (8.8,43.3)	23.76 (8.7,64.9)
<b>Income, finer detail</b>								
<\$20,000	2.72 (1.9,4.0)	0.38 (0.2,0.8)	1.16 (0.7,2.1)	3.31 (2.0,5.4)	6.96 (4.8,10.2)	10.44 (7.0,15.5)	13.35 (8.8,20.3)	21.13 (13.4,33.3)
\$20k-\$45k	2.89 (1.6,5.2)	0.40 (0.2,0.8)	1.21 (0.6,2.3)	3.25 (1.9,5.7)	6.97 (4.1,11.8)	10.94 (6.2,19.3)	14.35 (7.8,26.3)	22.31 (12.4,40.2)
\$45k-\$75k	2.89 (1.7,4.8)	0.40 (0.2,0.8)	1.23 (0.7,2.3)	3.25 (1.9,5.5)	7.27 (4.3,12.4)	11.56 (6.5,20.6)	14.55 (8.4,25.3)	22.60 (12.1,42.3)
\$75k+	3.66 (2.0,6.6)	0.52 (0.2,1.2)	1.70 (0.8,3.7)	4.62 (2.3,9.4)	9.29 (5.2,16.7)	14.16 (7.3,27.3)	17.31 (10.1,29.6)	25.25 (16.4,38.8)
>\$20,000	4.01 (1.6,9.8)	0.79 (0.2,3.1)	2.02 (0.8,5.2)	5.14 (1.8,14.5)	9.96 (3.8,26.4)	13.38 (5.9,30.5)	18.42 (6.7,50.8)	22.42 (9.4,53.3)
Inc Ref/DK	4.16 (1.0,17.5)	0.50 (0.2,1.6)	1.93 (0.4,8.9)	4.86 (1.1,21.0)	11.11 (2.1,57.5)	16.63 (3.2,86.5)	18.99 (5.0,72.1)	21.87 (7.2,66.9)
Inc missing	4.00 (1.7,9.4)	0.69 (0.2,2.8)	2.13 (0.6,7.8)	4.78 (1.8,13.0)	9.51 (4.2,21.3)	16.50 (6.2,43.8)	20.16 (7.7,52.5)	24.72 (4.4,140.0)
<b>Race/Ethnicity</b>								
Mexican American	2.82 (1.6,4.9)	0.39 (0.2,0.8)	1.20 (0.6,2.3)	3.31 (1.8,6.0)	7.12 (4.0,12.7)	10.86 (6.0,19.5)	14.17 (7.7,26.0)	23.18 (12.1,44.4)
Other Hispanic	2.40 (1.5,3.9)	0.31 (0.2,0.6)	1.05 (0.5,2.1)	2.95 (1.8,5.0)	6.18 (3.8,10.0)	9.27 (5.7,15.1)	11.47 (7.0,18.8)	18.84 (10.5,33.7)
White	3.25 (1.8,5.8)	0.44 (0.2,1.0)	1.36 (0.7,2.7)	3.84 (2.0,7.4)	8.15 (4.6,14.3)	12.53 (7.1,22.2)	16.82 (8.9,31.8)	24.61 (14.9,40.6)
Black	2.73 (1.9,4.0)	0.49 (0.2,1.0)	1.39 (0.8,2.5)	3.39 (2.2,5.3)	6.82 (4.7,10.0)	10.03 (6.8,14.7)	12.41 (8.6,17.9)	17.69 (11.1,28.2)
Other race	4.71 (3.0,7.4)	0.69 (0.3,1.4)	2.34 (1.3,4.3)	6.39 (3.4,11.9)	11.94 (7.5,19.0)	16.74 (11.1,25.2)	20.26 (13.7,30.0)	29.89 (18.9,47.3)

Table C-54. Trophic level 4 marine fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.32 (1.5,3.7)	0.33 (0.2,0.7)	0.95 (0.5,1.8)	2.73 (1.5,4.8)	5.64 (3.6,8.8)	8.39 (5.6,12.7)	11.37 (7.2,17.9)	19.47 (11.8,32.2)
Northeast	4.09 (2.3,7.2)	0.60 (0.3,1.4)	1.97 (0.9,4.2)	5.04 (2.8,8.9)	10.97 (5.7,21.1)	16.66 (8.0,34.5)	20.28 (10.4,39.4)	25.88 (12.8,52.4)
South	2.61 (1.7,4.0)	0.40 (0.2,0.8)	1.17 (0.7,1.9)	3.14 (2.0,5.0)	6.67 (4.2,10.5)	9.63 (6.4,14.5)	12.05 (8.1,18.0)	18.96 (12.1,29.8)
West	4.14 (2.2,7.9)	0.62 (0.2,1.6)	1.99 (0.8,4.8)	5.15 (2.4,10.9)	10.52 (5.6,19.9)	15.09 (8.7,26.3)	18.57 (11.3,30.5)	29.89 (16.7,53.4)
<b>Coastal Status</b>								
Noncoastal	3.21 (1.7,6.2)	0.44 (0.2,1.0)	1.36 (0.6,3.0)	3.81 (1.8,8.0)	8.10 (4.2,15.7)	12.40 (6.4,24.2)	16.39 (8.1,33.0)	23.77 (13.9,40.7)
Coastal	3.09 (2.2,4.4)	0.44 (0.2,0.8)	1.38 (0.8,2.2)	3.77 (2.5,5.7)	7.90 (5.6,11.2)	11.57 (8.1,16.5)	15.44 (10.6,22.5)	22.00 (13.8,35.0)
<b>Coastal/Inland Region</b>								
Pacific	3.21 (2.0,5.1)	0.46 (0.2,0.9)	1.42 (0.8,2.4)	4.11 (2.6,6.6)	8.28 (5.2,13.1)	12.41 (7.5,20.5)	15.67 (9.2,26.6)	21.19 (9.3,48.4)
Atlantic	3.39 (2.2,5.3)	0.51 (0.3,1.0)	1.60 (0.9,2.8)	4.12 (2.5,6.7)	8.71 (5.3,14.4)	12.52 (7.8,20.0)	16.30 (10.0,26.5)	23.48 (13.8,40.0)
Gulf of Mexico	2.99 (1.3,6.7)	0.41 (0.2,1.0)	1.24 (0.6,2.6)	3.42 (1.5,7.7)	7.28 (3.3,16.2)	10.54 (5.3,20.9)	14.94 (6.1,36.8)	25.25 (9.2,68.9)
Great Lakes	2.25 (1.2,4.3)	0.34 (0.2,0.7)	0.96 (0.5,1.8)	2.66 (1.5,4.8)	5.38 (2.5,11.7)	7.88 (3.2,19.4)	9.97 (3.6,28.0)	19.87 (11.6,34.1)
Inland Northeast	4.39 (2.2,8.8)	0.61 (0.2,1.6)	2.04 (0.8,5.0)	5.45 (2.6,11.2)	12.20 (5.2,28.4)	17.84 (7.6,41.7)	21.41 (9.9,46.1)	26.67 (11.8,60.4)
Inland Midwest	2.34 (1.1,5.0)	0.32 (0.1,0.8)	0.95 (0.4,2.1)	2.74 (1.2,6.2)	5.75 (2.8,11.7)	8.66 (4.4,17.0)	11.46 (5.5,23.7)	19.34 (8.0,46.5)
Inland South	2.29 (1.4,3.6)	0.38 (0.2,0.8)	1.07 (0.6,1.9)	2.83 (1.7,4.7)	6.13 (3.6,10.5)	8.51 (5.4,13.5)	10.46 (6.6,16.7)	16.39 (9.6,27.9)
Inland West	4.92 (1.7,14.5)	0.81 (0.2,3.5)	2.48 (0.6,9.6)	6.21 (1.8,20.9)	12.20 (4.2,35.3)	16.74 (7.1,39.5)	21.05 (9.3,47.4)	35.55 (13.0,97.3)

Table C-55. Number reporting fish consumption on either 24-hr recall, by fish type

	N	Total fish	Total finfish	Total shellfish	Freshwater	Marine	Estuarine	FW+Est	Marine+ Est	Marine+ FW	Trophic Level 2	Trophic Level 3	Trophic Level 4	FW+Est TL2	FW+Est TL3	FW+Est TL4	Marine TL2	Marine TL3	Marine TL4	
<b>Total</b>	29,463	6,890	5,320	2,439	2,263	6,285	4,849	4,964	6,782	6,797	2,705	4,463	4,546	2,705	3,652	2,568	2,370	4,203	4,216	
<b>Gender</b>																				
Female	15,694	3,806	2,924	1,345	1,199	3,494	2,675	2,725	3,758	3,759	1,494	2,434	2,498	1,494	2,012	1,382	1,308	2,307	2,338	
Male	13,769	3,084	2,396	1,094	1,064	2,791	2,174	2,239	3,024	3,038	1,211	2,029	2,048	1,211	3,652	1,186	1,062	1,896	1,878	
<b>Age, years</b>																				
1 to <3	2,325	345	272	98	104	305	193	204	334	343	111	209	242	111	137	101	94	194	219	
3 to <6	2,185	350	277	104	92	322	200	200	350	346	118	225	246	118	141	96	100	211	229	
6 to <11	2,705	454	367	126	116	416	264	270	449	447	143	286	313	143	197	127	120	271	297	
11 to <16	2,806	445	322	162	123	402	310	318	437	439	180	296	268	180	235	140	158	280	247	
16 to <18	1,417	252	171	96	68	237	176	180	248	250	98	173	155	98	144	87	95	164	143	
18 to <21	1,662	311	227	128	67	294	211	213	309	308	131	209	197	131	180	96	126	199	184	
21 to <35	4,381	1,070	761	489	312	992	806	815	1,063	1,051	531	745	645	531	660	369	475	713	611	
35 to <50	4,522	1,332	1,023	497	454	1,221	109	1,018	1,323	1,309	566	883	839	566	765	517	488	835	795	
50 to <65	3,730	1,216	971	424	472	1,101	889	918	1,189	1,208	468	775	836	468	658	526	413	723	761	
65 and older	3,730	1,115	929	315	455	995	791	828	1,080	1,096	359	662	805	359	535	509	301	613	730	
WCA (13 to 49 years)	7,870	1,919	1,409	768	537	1,785	1,407	1,421	1,906	1,889	839	1,300	1,179	839	1,112	668	749	1,243	1,121	
<b>Income</b>																				
<\$20k	6,679	1,374	1,091	432	395	1,256	894	920	1,350	1,358	491	911	926	491	705	470	430	857	852	
\$20k to <\$45k	8,955	1,968	1,501	695	645	1,774	1,366	1,405	1,931	1,950	791	1,285	1,258	791	1,044	684	686	1,205	1,145	
\$45k to <\$75k	5,561	1,334	1,039	465	477	1,211	955	979	1,313	1,316	511	856	898	511	708	530	449	799	836	
\$75k and over	6,288	1,768	1,352	687	600	1,634	1,314	1,336	1,746	1,730	740	1,108	1,166	740	953	713	655	1,051	1,104	
>\$20k	825	203	149	72	74	182	152	153	202	200	86	140	126	86	108	74	68	136	120	
Ref/DK income	808	164	126	57	54	153	115	118	161	164	57	111	116	57	91	67	53	107	108	
Income missing	347	79	62	31	18	75	53	53	79	79	29	52	56	29	43	30	29	48	51	
<b>Race/Ethnicity</b>																				
Mexican American	6,868	1,350	970	524	414	1,212	944	961	1,333	1,337	618	886	823	618	725	420	523	848	776	
Other Hispanic	2,405	532	403	177	160	490	352	353	531	531	202	329	348	202	252	163	170	316	332	
Non-Hispanic white	11,980	2,678	2,075	955	811	2,509	1,855	1,904	2,630	2,627	1,006	1,573	1,835	1,006	1,330	1,017	909	1,513	1,737	
Non-Hispanic black	6,734	1,818	1,464	589	672	1,603	1,294	1,333	1,784	1,803	669	1,291	1,184	669	1,015	722	579	1,162	1,038	
Other race	1,476	512	408	194	206	471	404	413	504	499	210	384	356	210	330	246	189	364	333	
<b>US Region</b>																				
Midwest	6,445	1,235	968	381	410	1,070	796	855	1,178	1,214	431	773	840	431	608	454	374	702	718	
Northeast	4,475	1,202	912	447	316	1,154	811	814	1,200	1,192	445	733	806	445	606	410	403	717	790	
South	11,036	2,687	21,090	950	939	2,415	1,921	1,965	2,646	2,648	1,086	1,827	1,732	1,086	1,469	1,002	944	1,692	1,581	
West	7,507	1,766	1,331	661	598	1,646	1,321	1,330	1,758	1,743	743	1,130	1,168	743	969	702	649	1,092	1,127	
<b>Coastal Status</b>																				
Noncoastal	17,251	3,718	2,903	1,214	1,247	3,376	2,499	2,584	3,637	3,682	1,344	2,362	2,546	1,344	1,888	1,380	1,184	2,213	2,332	
Coastal	12,212	3,172	2,417	1,225	1,016	2,909	2,350	2,380	3,145	3,115	1,361	2,101	2,000	1,361	1,764	1,188	1,186	1,990	1,884	
<b>US Coastal/Inland</b>																				
Pacific	3,802	976	747	369	349	900	743	747	972	963	425	621	644	425	528	402	362	599	624	
Atlantic	4,646	1,320	1,011	488	382	1,247	954	960	1,315	1,299	524	865	835	524	706	469	465	844	810	
Gulf of Mexico	1,370	361	275	186	125	316	289	296	355	351	203	269	202	203	243	131	180	240	178	
Great Lakes	2,394	515	384	182	160	446	364	377	503	502	209	346	319	209	287	186	179	307	272	
Inland Northeast	2,584	628	476	229	169	600	415	416	628	623	234	364	416	234	308	199	205	356	411	
Inland Midwest	4,137	741	602	203	254	645	441	487	696	733	226	437	539	226	329	274	199	405	463	
Inland South	6,825	1,559	1,241	490	575	1,385	1,065	1,098	1,527	1,546	566	1,052	1,067	566	810	607	493	959	955	
Inland West	3,705	790	584	292	249	746	578	583	786	780	318	509	524	318	441	300	287	493	503	

Table C-56. Number reporting fish consumption on both 24-hr recalls, by fish type

	Total fish	Total finfish	Total shellfish	Fresh-water	Marine	Estuarine	FW+Est	Marine +Est	Marine +FW	Trophic Level 2	Trophic Level 3	Trophic Level 4	FW+Est TL2	FW+Est TL3	FW+Est TL4	Marine TL2	Marine TL3	Marine TL4
<b>Total</b>	892	568	147	129	751	476	501	863	866	172	381	410	172	270	163	136	347	380
<b>Gender</b>																		
Female	454	275	77	66	382	242	257	438	443	87	191	197	87	133	80	69	175	180
Male	438	293	70	63	369	234	244	425	423	85	190	213	85	137	83	67	172	200
<b>Age, years</b>																		
1 to <3	24	16	<10	<10	19	16	16	24	24	<10	14	13	<10	10	<10	<10	12	11
3 to <6	42	32	<10	<10	31	11	14	39	42	<10	24	22	<10	10	<10	<10	18	18
6 to <11	33	24	<10	<10	30	14	14	33	32	<10	16	17	<10	10	<10	<10	15	16
11 to <16	36	20	<10	<10	32	23	23	36	35	<10	22	15	<10	15	<10	<10	20	14
16 to <18	22	18	<10	<10	19	<10	11	20	22	<10	10	15	<10	<10	<10	<10	<10	13
18 to <21	29	16	<10	<10	26	11	11	29	28	<10	13	15	<10	<10	<10	<10	12	15
21 to <35	152	83	24	22	126	83	86	148	149	28	63	64	28	45	27	21	58	58
35 to <50	194	115	46	26	166	123	129	188	189	53	98	77	53	79	35	44	92	74
50 to <65	184	124	26	23	159	92	94	180	179	28	73	86	28	51	34	23	68	81
65 and older	176	120	23	34	143	94	103	166	166	30	48	86	30	35	37	22	43	80
WCA (13 to 49 years)	223	121	45	30	183	130	138	214	218	53	101	86	53	77	34	40	93	77
<b>Income</b>																		
<\$20k	143	99	15	17	115	60	64	138	133	18	70	74	18	44	27	14	63	65
\$20k to <\$45k	224	147	39	38	173	112	121	213	219	50	91	100	50	61	33	37	80	90
\$45k to <\$75k	189	119	32	29	162	92	101	179	185	37	80	90	37	55	31	29	71	83
\$75k and over	282	166	49	37	256	179	180	282	276	54	114	125	54	90	62	45	109	122
>\$20k	24	18	<10	<10	20	14	15	23	24	<10	11	11	<10	<10	<10	<10	10	10
Ref/DK income	19	12	<10	<10	16	12	12	19	19	<10	<10	<10	<10	<10	<10	<10	<10	<10
Income missing	10	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
<b>Race/Ethnicity</b>																		
Mexican American	94	57	14	11	79	44	45	93	93	22	43	43	22	25	10	15	42	41
Other Hispanic	67	38	14	<10	56	34	36	65	67	16	28	30	16	19	10	12	27	29
Non-Hispanic white	374	228	61	45	327	201	213	363	358	68	126	174	68	97	70	57	117	167
Non-Hispanic black	250	175	34	51	199	131	137	240	242	40	128	107	40	86	43	32	107	93
Other race	107	70	24	18	90	66	70	102	106	26	56	56	26	43	30	20	54	50
<b>US Region</b>																		
Midwest	126	88	19	19	101	53	63	117	122	22	46	64	22	30	21	17	40	61
Northeast	187	108	32	25	168	105	107	184	180	34	64	87	34	53	37	29	61	82
South	348	224	63	50	283	186	193	338	337	74	176	152	74	118	58	57	155	135
West	231	148	33	35	199	132	138	224	227	42	95	107	42	69	47	33	91	102
<b>Coastal Status</b>																		
Noncoastal	418	272	58	69	350	199	211	404	407	70	173	212	70	106	85	55	159	198
Coastal	474	296	89	60	401	277	290	459	459	102	208	198	102	164	78	81	188	182
<b>US Coastal/Inland</b>																		
Pacific	146	97	22	22	125	88	92	142	145	29	64	64	29	51	26	22	61	60
Atlantic	200	114	36	23	174	120	121	198	189	41	83	75	41	60	31	29	79	70
Gulf of Mexico	69	41	21	<10	56	44	47	65	68	20	40	29	20	37	13	20	32	24
Great Lakes	59	44	10	<10	46	25	30	54	57	12	21	30	12	16	8	10	16	28
Inland Northeast	89	58	15	13	80	45	45	88	85	17	31	50	17	24	20	15	30	48
Inland Midwest	68	44	<10	12	55	28	34	63	66	10	25	34	10	14	13	<10	24	33
Inland South	176	119	23	31	141	82	86	171	174	30	86	85	30	50	31	22	75	75
Inland West	85	51	11	13	74	44	46	82	82	13	31	43	13	18	21	11	30	42

**Attachment B: Mark-up of Draft Document by Patricia M. Guenther, Ph.D., RD**

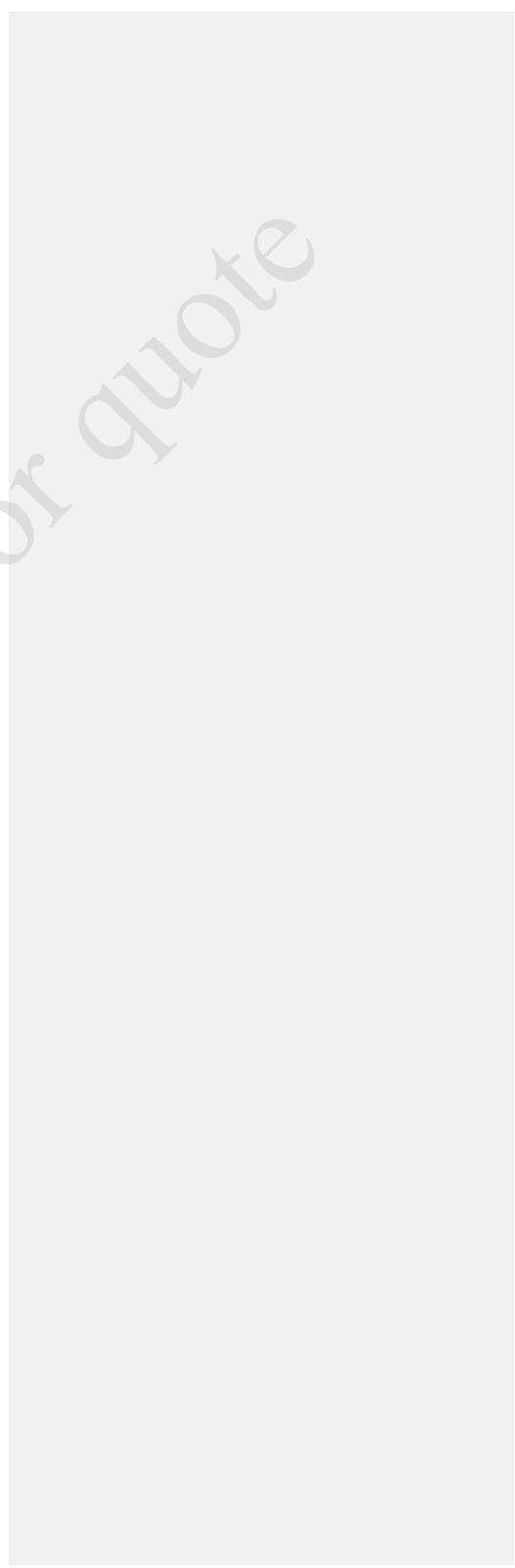
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17

**Fish Consumption Rates**

**Draft Report**

**August 23, 2013**

DRAFT Do not cite or quote



## Table of Contents

19	<b>Chapter</b>		<b>Page</b>
20			
21	1	Background.....	1
22	2	National Health and Examination Survey .....	3
23		2.1 Survey Description.....	3
24		2.2 Survey Data.....	4
25		2.2.1 24-hr Recall.....	4
26		2.2.2 30-day Fish Consumption Frequency.....	4
27		2.3 Food and Nutrient Database for Dietary Studies .....	5
28		2.4 Regions .....	5
29			
30	3	NCI Method.....	7
31	4	Methods .....	8
32		4.1 Habitat Apportionment .....	8
33		4.1.1 NHANES Fish Groupings.....	10
34		4.1.2 Use of NOAA Landings Data.....	11
35		4.1.3 Imported Fish and Farmed Fish .....	13
36			
37		4.2 Trophic Level Assignments.....	13
38		4.3 Extracting Reported Amounts of Fish Consumed .....	16
39		4.4 Statistical Methods .....	17
40		4.4.1 Overview of the NCI method .....	17
41		4.4.2 Calculation steps for the NCI and Modified	
42		Models.....	18
43		4.4.3 Simulation of the Usual Fish Consumption .....	20
44		4.4.4 Calculation of Confidence Intervals .....	22
45		4.4.5 Application of Modified NCI Method.....	22
46		4.4.6 Comparison of Estimates to NCI Method.....	22
47			
48	5	Results .....	23
49			
50		5.1 Sample Size .....	23
51		5.2 UFCR Adults, 21 Years and Older.....	25
52		5.3 Comparison of UFCR Estimates: Modified NCI Method	
53		and NCI Method.....	48
54		5.4 Uncertainty.....	53
55		5.4.1 Habitat Assignment.....	53
56		5.4.2 NCI Method.....	54
57		5.4.3 Regions.....	55
58		5.4.4 Seasonality.....	55
59		5.4.5 Precision of Estimates .....	55
60			
61	6	References.....	56

62  
63

## Table of Contents (continued)

64	<b>Table</b>		<b>Page</b>
65			
66	Table 1.	Habitat Assignments of NHANES Fish Groups.....	9
67	Table 2.	NOAA landings data, clam apportionment.....	12
68	Table 3.	Trophic Level Assignments.....	15
69	Table 4.	Processing Adjustments.....	16
70	Table 5.	Sample Size and Number Reporting Fish Consumption, by Fish	
71		Type.....	24
72	Table 6a.	UFCR Estimates (g/day): Total Fish, Adults, 21 years and older,	
73		by demographics.....	26
74	Table 6b.	UFCR Estimates (g/day): Total Fish, Adults, 21 years and older,	
75		by geography.....	27
76	Table 7a.	UFCR Estimates (g/day): Freshwater + Estuarine Fish, Adults,	
77		21 years and older, by demographics.....	28
78	Table 7b.	UFCR Estimates (g/day): Freshwater + Estuarine Fish, Adults,	
79		21 years and older, by geography.....	29
80	Table 8a.	UFCR Estimates (g/day): Marine Fish, Adults, 21 years and	
81		older, by demographics.....	30
82	Table 8b.	UFCR Estimates (g/day): Marine Fish, Adults, 21 years and	
83		older, by geography.....	31
84	Table 9a.	UFCR Estimates (g/day): Total Finfish, Adults, 21 years and	
85		older, by demographics.....	32
86	Table 9b.	UFCR Estimates (g/day): Total Finfish, Adults, 21 years and	
87		older, by geography.....	33
88	Table 10a.	UFCR Estimates (g/day): Total Shellfish, Adults, 21 years and	
89		older, by demographics.....	34
90	Table 10b.	UFCR Estimates (g/day): Total Shellfish, Adults, 21 years and	
91		older, by geography.....	35
92	Table 11a.	UFCR Estimates (g/day): Total Trophic Level 2 Fish, Adults, 21	
93		years and older, by demographics.....	36
94	Table 11b.	UFCR Estimates (g/day): Total Trophic Level 2 Fish, Adults, 21	
95		years and older, by geography.....	37
96	Table 12a.	UFCR Estimates (g/day): Total Trophic Level 3 Fish, Adults, 21	
97		years and older, by demographics.....	38
98	Table 12b.	UFCR Estimates (g/day): Total Trophic Level 3 Fish, Adults, 21	
99		years and older, by geography.....	39
100	Table 13a.	UFCR Estimates (g/day): Total Trophic Level 4 Fish, Adults, 21	
101		years and older, by demographics.....	40
102	Table 13b.	UFCR Estimates (g/day): Total Trophic Level 4 Fish, Adults, 21	
103		years and older, by geography.....	41
104	Table 14a.	UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic	
105		Level 2 Fish, Adults, 21 years and older, by demographics.....	42

106  
107

**Table of Contents  
(continued)**

<b>Table</b>		<b>Page</b>
108		
109		
110	Table 14b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic	
111	Level 2 Fish, Adults, 21 years and older, by geography.....	43
112	Table 15a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic	
113	Level 3 Fish, Adults, 21 years and older, by demographics.....	44
114	Table 15b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic	
115	Level 3 Fish, Adults, 21 years and older, by geography.....	45
116	Table 16a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic	
117	Level 4 Fish, Adults, 21 years and older, by demographics.....	46
118	Table 16b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic	
119	Level 4 Fish, Adults, 21 years and older, by geography.....	47
120	Table 17. Models used to compare UFCR Estimates from the Modified	
121	NCI Method and the NCI Method .....	48
122		
123		
124	<b>Figure</b>	<b>Page</b>
125		
126	Figure 1. Estimated usual intake of total fish (g), comparison of EPA's	
127	Modified NCI Method and NCI Method.....	49
128	Figure 2. Estimated usual intake of freshwater + estuarine fish (g),	
129	comparison of EPA's Modified NCI Method and NCI Method.....	50
130	Figure 3. Estimated usual intake of marine fish (g), comparison of EPA's	
131	Modified NCI Method and NCI Method.....	51
132	Figure 4. Estimated usual intake of estuarine fish (g), comparison of EPA's	
133	Modified NCI Method and NCI Method.....	52
134	Figure 5. Estimated usual intake of total fish (g), comparison of EPA's	
135	Modified NCI Method and NCI Method with 95% CIs.....	53
136		
137		
138	<b>List of Appendices</b>	
139		
140	A Habitat Apportionment Documentation	
141	B Fish-Containing Food Codes	
142	C Usual Fish Consumption Rate Tables	

# 1 Background

143

144

145 In October, 2000, EPA's Office of Water (OW) published a document titled, Methodology for  
146 Deriving Ambient Water Quality Criteria for the Protection of Human Health. This document  
147 presents EPA's recommended methodology for developing ambient water quality criteria as required  
148 under Section 304(a) of the Clean Water Act (CWA). Due to the fact that fish consumption varies  
149 by geographical location, racial/ethnic group, age, income, and possibly other factors, EPA  
150 suggested a "four preference hierarchy" for states and tribes to follow. The four preference  
151 hierarchy is:

152

- 153 1. Use of local data
- 154 2. Use of data reflecting similar geography/population groups
- 155 3. Use of data from national surveys
- 156 4. Use of EPA's default intake rates.

157

158 The methodology included the current default fish consumption rate (FCR) used by OW:

159

- 160 • 17.5 grams/day for the general U.S. population and recreational fishers
- 161 • 142.4 g/day for subsistence fishers.

162

163 These rates are the 90<sup>th</sup> and 99<sup>th</sup> percentile of freshwater and estuarine fish consumption as  
164 calculated from the Continuing Survey of Food Intake by Individuals (CSFII) conducted by the U.S.  
165 Department of Agriculture (USDA) in 1994-1996, for adults 18 years and older. The analytical  
166 methodology used to calculate these rates involved apportioning species consumed to habitats  
167 (marine, estuarine, and freshwater), multiplying these habitat proportions by grams of fish reported  
168 consumed, and then calculating the mean and percentiles of the grams of fish consumed per day by  
169 habitat, directly from these resulting amounts. This methodology provides estimates of short-term  
170 UFCR.

171

172 As fish consumption may have changed over the past decade and new analytical methodologies have  
173 been developed, OW has conducted a new analysis of FCR. These new FCR were estimated using  
174 data from the National Health and Nutrition Examination Survey (NHANES) 2003-2010.  
175 NHANES is a continuous survey designed to collect data on the health and nutritional status of the  
176 U.S. population. Each two-year cycle is designed to be representative of the general U.S. population.

177

178 In the mid-2000s, the National Cancer Institute (NCI) developed a statistical methodology to  
179 estimate usual intake of episodically consumed foods. This method, known as the NCI Method, has  
180 been published and statistical programs are available on NCI's website. The NCI method provides  
181 estimates of usual daily intake rates representing the long-term average grams of fish consumed per  
182 day. Due to the episodic nature of fish consumption, the NCI Method models both the probability  
183 of consumption on a given day and the amount consumed on days when some fish is consumed.  
184 These two predicted values are then multiplied together to get a usual intake value. The calculations  
185 using the NCI Method are very time consuming. In order to get estimates in a reasonable time, EPA  
186 created a program that approximates the results from the NCI Method.

187

**Commented [PG1]:** This acronym has not yet been defined and should be here at first mention. Later it is said to mean Usual Fish Consumption Rates; however, "short-term" and "usual" are contradictory. This requires explanation. What did the 1994-96 methodology estimate exactly? The differences between the current and previous methodologies should be made clearer.

188 Usual fish consumption rates (UFCR) were estimated for the general U.S. population, the youth  
189 population under 21 years of age, and the adult population 21 years and older. UFCR estimates were  
190 calculated for various subpopulations, *e.g.*, by age, gender, race/ethnicity, income, and by U.S.  
191 Census Region and coastal and noncoastal populations. We estimated UFCR for 18 different  
192 categories of fish. These are:

- 193
- 194 • Total fish
- 195 • Total finfish
- 196 • Total shellfish
- 197 • Marine fish
- 198 • Freshwater fish
- 199 • Estuarine fish
- 200 • Freshwater + estuarine fish
- 201 • Freshwater + marine fish
- 202 • Estuarine + marine fish
- 203 • Trophic level 2 fish
- 204 • Trophic level 3 fish
- 205 • Trophic level 4 fish
- 206 • Marine trophic level 2 fish
- 207 • Marine trophic level 3 fish
- 208 • Marine trophic level 4 fish
- 209 • Freshwater + estuarine trophic level 2 fish
- 210 • Freshwater + estuarine trophic level 3 fish
- 211 • Freshwater + estuarine trophic level 4 fish

212  
213 This report presents the methodologies used to extract fish consumption data from the NHANES  
214 datasets, the habitat apportionment methodology, the trophic level assignment methodology, the  
215 statistical methodology, and the UFCR estimates and 95 % CI of the mean and the 25th, 50th, 75th,  
216 90th, 95th, 97th, and 99th percentiles.

**Commented [PG2]:** In addition to these 18 categories other, more specific, types of fish are also tabulated and that should be mentioned here as well.

## 2 National Health and Examination Survey

### 2.1 Survey Description

NHANES is designed to assess the health and nutritional status of adults and children in the US. It is conducted by the National Center for Health Statistics (NCHS, 2013), part of the Centers for Disease Control and Prevention (CDC) which is responsible for producing vital and health statistics for the US. NHANES began in the 1960s. In 1999, the survey became a continuous program that examines a nationally representative sample of about 5,000 persons located in 15 counties across the country each year.

The NHANES interview includes demographic, socioeconomic, dietary, and health-related questions; and the examination component consists of medical, dental, and physiological measurements, as well as laboratory tests.

NHANES collects 2 days of dietary data from all participants. The first day, the data are collected in-person at the examination portion of the survey. The second day's data are collected by telephone interview 3 to 10 days after the in-person interview. Both interviews include a 24-hour dietary recall section. The primary goal of the 24-hour recall is to collect a detailed list of all the foods and beverages consumed within a 24-hour period. Food models are used to help participants estimate the amount consumed. The in-person interview also includes a section on the frequency of consumption of fish and shellfish in the past 30 days. (NCHS, 2009).

A complex, multistage, probability sampling design is used to select participants representative of the civilian, non-institutionalized US population.

- Stage 1: Primary sampling units (PSUs) are selected with probability proportional to a measure of size (PPS). These are mostly single counties or, in a few cases, groups of contiguous counties.
- Stage 2: The PSUs are divided up into segments (generally city blocks or their equivalent). As with each PSU, sample segments are selected with PPS.
- Stage 3: Households within each segment are listed, and a household sample is randomly drawn. In geographic areas where the proportion of age, ethnic, or income groups selected for oversampling is high, the probability of selection for those groups is greater than in other areas.
- Stage 4: Individuals are chosen to participate in NHANES from a list of all persons residing in selected households. Individuals are drawn at random within designated age-sex-race/ethnicity screening subdomains. On average, 1.6 persons are selected per household. Oversampling of certain population subgroups is done to increase the reliability and precision of health status indicator estimates for these groups.

The NHANES data files include analysis weights to account for the complex survey design (including oversampling), survey non-response, and post-stratification. Weighted NHANES results describe the U.S. Census civilian non-institutionalized population. A person's weight is a measure of the number of people in the population represented by that sampled person.

Deleted: of

## 262 2.2 Survey Data

### 263 2.2.1 24-hr Recall

264 The 24-hr dietary recall interview data provide 1) what food items the participants ate and 2) how  
265 much of each food item they ate. All NHANES participants are eligible for the dietary interview  
266 component which occurs during the examination portion of the survey. The first interview is  
267 conducted in-person via a computer-assisted dietary interview software program which was  
268 developed for NHANES. The interviewer uses a standard set of measuring guides to help the  
269 participant report the volume and dimensions of the foods consumed. The second dietary interview  
270 is conducted via telephone. It occurs 3 to 10 days after the first dietary interview. The participants  
271 are given a set of measuring guides to take home and use during the telephone interview.  
272

273 The 24-hour recall data are collected using the USDA Automated Multiple-Pass Method (AMPM).  
274 Detailed information on the method can be found on USDA's website at:  
275 <http://www.ars.usda.gov/Services/docs.htm?docid=7710>. The method is computerized and  
276 research-based. It uses 5 steps designed to assist participants with complete and accurate food recall  
277 and reduce respondent burden.  
278

279 The five steps are:

- 280 1. Collect a list of foods and beverages consumed the previous day.
- 281 2. Probe for foods forgotten during the step 1.
- 282 3. Collect the time and the name of the eating occasion for each food.
- 283 4. For each food, collect detailed description, amount, and additions (i.e., anything that may  
284 have been added to the food). Review 24-hour day.
- 285 5. Final probe for anything else consumed.  
286

### 287 2.2.2 30-day Fish Consumption Frequency

289 The 30-day fish consumption frequency data are derived from questionnaire data that asks  
290 participants how often in the past 30 days they consumed 31 different fish species. These species  
291 are: clams, crabs, crayfish, lobster, mussels, oysters, scallops, shrimp, other shellfish, unknown  
292 shellfish, breaded fish products, tuna, bass, catfish, cod, flatfish, haddock, mackerel, perch, pike,  
293 pollock, porgy, salmon, sardines, sea bass, shark, swordfish, trout, walleye, other fish, and unknown  
294 fish. Using these data we can derive a variable for the number of times fish was consumed in the  
295 past 30 days by summing up the values for all 31 variables. This information improves intake  
296 estimates for episodically consumed foods like fish, as even people who consumed fish frequently  
297 do not do so every day thus it isn't reported frequently in 24-hour recall data. This derived variable  
298 of frequency of consumption can then be used as a predictor in statistical models of the probability  
299 of fish consumption and fish consumption amount.  
300  
301

## 302 2.3 Food and Nutrient Database for Dietary Studies

303 The USDA Food and Nutrient Database for Dietary Studies (FNDDS) is the underlying database  
304 used to code dietary intakes for NHANES. It is a database of foods, their nutrient values, and  
305 weights for typical food portions. For each new version of FNDDS, foods, portions, and nutrient  
306 values are reviewed and updated to reflect the U.S. food supply by incorporating new foods based  
307 on what is reported in the survey and updating existing entries.

308  
309 In FNDDS, each food is given an 8-digit food code. The first digit identifies one of nine major food  
310 groups. The second, third, and fourth digits identify increasingly more specific subgroups. Most fish-  
311 containing foods are found under “26 – Fish and Shellfish,” “27 – Meat, Poultry, Fish with nonmeat  
312 items,” and 28 which includes soups and frozen meals. Other fish-containing foods are found under  
313 “5 – Grains” such as seafood pizza and pasta dishes and “7 – Vegetables” for dishes that are mainly  
314 vegetables but also contain fish and/or shellfish.

Deleted: that

315  
316 The NHANES 24-hour recall data includes these same food codes for each reported food  
317 consumed, thus the reported foods can be merged to the FNDDS files to obtain recipe information.  
318 The FNDDS files are available from the Agriculture Research Service of the USDA (USDA, 2006;  
319 USDA, 2008; USDA 2010; Ahuja, et al., 2012).

## 321 2.4 Regions

322 Patterns of fish and shellfish consumption may vary by geography such as between U.S. residents  
323 that live on or near the coast and those who live inland or among regions of the U.S. as defined by  
324 the U.S. Census Bureau (Mahaffey, et al, 2009). Fish consumption patterns may also vary by specific  
325 coast (e.g., residents near the Atlantic coast may have different fish consumption patterns than those  
326 on the Gulf of Mexico coast). In order to estimate fish consumption rates by region and coast, we  
327 assigned NHANES respondents to U.S. Census Bureau regions and coastal or noncoastal status, and  
328 further categorized them into 8 regions: Atlantic Coast, Northeast, Great Lakes, Midwest, South,  
329 Gulf of Mexico, West, and Pacific Coast. The geography data were obtained from NCHS Research  
330 Data Center through their restricted use data access procedures.

Deleted: between

331  
332 The geographic unit used by NHANES is a county or county equivalent, thus our definitions of  
333 coastal and noncoastal were limited to county boundaries. All counties that bordered the Pacific or  
334 Atlantic Oceans, the Gulf of Mexico or any of the Great Lakes were defined as coastal.  
335 Additionally, counties that bordered estuaries and bays were defined as coastal as were counties  
336 whose centroid was within approximately 25 miles of any coast even if not directly bordering a  
337 coast. The four coastal regions were then defined based on nearest body of water. The following  
338 provides definitions of each region:

Deleted: ,

- 339 • U.S. Census Regions
  - 340 ○ Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, and KS
  - 341 ○ Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, and ME
  - 342 ○ South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK,  
343 and TX
  - 344 ○ West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, and HI
  - 345

- 349
- 350
- 351
- 352
- 353
- 354
- 355
- 356
- 357
- 358
- 359
- 360
- 361
- 362
- 363
- 364
- Coastal and Inland Regions
    - Pacific Coast = coastal counties in CA, OR, WA, AK, and HI
    - Atlantic Coast = coastal counties in CT, DE, DC, FL (bordering Atlantic Ocean), GA, ME, MD, MA, NH, NJ, NY, NC, PA, RI, SC, and VA
    - Gulf of Mexico Coast = coastal counties in AL, FL (bordering Gulf of Mexico), LA, MS, and TX
    - Great Lakes Coast = counties bordering the Great Lakes in MI, WI, OH, NY, MN, IN, IL, and PA
    - Inland West = remaining counties in CA, OR, WA, AK, and HI and all of NM, CO, WY, MT, ID, UT, AZ, and NV
    - Inland South = remaining non-coastal counties in DE, MD, DC, VA, NC, SC, GA, AL, MS, FL, LA, and TX and all of WV, KY, TN, AR, and OK
    - Inland Northeast = remaining counties in PA, NY, NJ, CT, RI, MA, NH, and ME and all of VT.
    - Inland Midwest = remaining counties in OH, MI, IN, WI, IL, and MN and all of MO, IA, SD, ND, NE, and KS

### 3 NCI Method

365

366

367 The NCI Method (Tooze, et al, 2006; Tooze, et al, 2010) can be used to estimate the distribution of  
368 usual intake for a population or subpopulation. The premise of the NCI method is that usual intake  
369 is equal to the probability of consumption on a given day times the average amount consumed on a  
370 “consumption day.” For episodically-consumed foods, such as fish, a two-part model is used to  
371 estimate usual intake. The first part estimates the probability of consumption using logistic  
372 regression with a person-specific random effect. The second part uses linear regression on a  
373 transformed scale to estimate the consumption-day amount, also with a person-specific effect. The  
374 two parts are linked by allowing the person-specific effects to be correlated and by including  
375 common predictors in both parts of the model. Data from one or more non-consecutive 24-hour  
376 recalls provide the values for the dependent variable. At least a subset of the population needs to  
377 have consumption data from two or more 24-hour recalls. Predictors related to either the probability  
378 of consumption or consumption amount, such as gender, age, race, and income can be included in  
379 the modeling. In most cases, the most important predictor is a measure of frequency of  
380 consumption of the food of interest (in this case, fish) obtained from a food frequency  
381 questionnaire. The resulting model parameters are then used to estimate population and  
382 subpopulation distributions.

383

384 Evidence for the validity of the method has been published in a series of papers in the Journal of the  
385 American Dietetic Association, Statistics in Medicine, and the Journal of Nutrition (Dodd, et al,  
386 2006; Tooze, et al, 2006; Tooze, et al 2010; Freedman, et al, 2010)

387

388 The NCI Method is an improvement over other methods designed to estimate usual intake of  
389 episodically consumed foods because it:

390

- 391 • Accounts for reported days without consumption or for consumption-day amounts that are  
392 positively skewed
- 393 • Distinguishes within-person from between-person variation
- 394 • Allows for the correlation between the probability of consumption and the consumption-day  
395 amount
- 396 • Relates covariate information to usual intake

Deleted: ;

## 4 Methods

### 4.1 Habitat Apportionment

In order to make estimates of fish consumption rates for marine fish, estuarine fish, freshwater fish, and various combinations of these types, the fish species reported as consumed by NHANES participants were apportioned to habitats. The assignments of species were completed by a fisheries biologist. Appendix A contains the detailed documentation of the assignments for each species.

The fish were apportioned to align with EPA's long-standing interpretation of section 303(c) (2) (A) of the Clean Water Act that State and Tribal waters should support safe consumption of fish and shellfish and that the standards need to be set to enable residents to safely consume from local waters the amount of fish they would normally consume from all fresh and estuarine (including near coastal) waters. Thus marine species that are harvested in near coastal waters were assigned to the estuarine habitat in order to be included in the freshwater + estuarine fish consumption rate. The following decisions concerning habitat assignments were made:

- Estuarine fish and shellfish include estuarine species harvested in near-coastal areas (clams, mussels, crabs, lobster, shrimp) and single species that live in both marine and estuarine habitats (*e.g.*, specific clam and octopus species or the single jellyfish species that comprises the US jellyfish fishery).
- Tilapia was assigned 50 percent freshwater and 50 percent estuarine, even though it is rare in US waters to be consistent with, "...the standards need to be set to enable residents to safely consume from local waters the amount of fish they would normally consume from all fresh and estuarine (including near coastal) waters."
- Shrimp was assigned 17.6 percent marine and 82.4 percent estuarine. NOAA landings data show that 17.6 percent of shrimp harvested in 2009-2010 were "Ocean Shrimp (Oregon Pink Shrimp)," "Rock Shrimp," "Royal Red Shrimp," and "Marine Shrimp, Other."
- Salmon was assigned 96 percent marine, 0.5 percent freshwater, and 3.5 percent estuarine. The freshwater percent is landlocked sockeye salmon (Kokanee) found natively in Alaska, Washington, and Oregon, but they have also been introduced to many other states for recreational fishing. The estuarine percent includes saltwater trout which is included in the NHANES salmon group and the small proportion of salmon that are harvested in estuaries. Note that farmed Atlantic salmon were assigned to the marine habitat as they are produced outside of the U.S. in marine waters.

Table 1 presents the final proportion of each NHANES fish group that is assigned to marine, estuarine, and freshwater habitats. The remainder of section 4.1 discusses the details of these assignments. Note that unspecified fish consumed was assigned the overall average habitat apportionment of all species reported consumed.

437 Table 1. Habitat Assignments of NHANES Fish Groups  
 438

Species/Group	Proportion		
	Marine	Freshwater	Estuarine
Abalone	1.000	0.000	0.000
Anchovy	0.000	0.000	1.000
Barracuda	1.000	0.000	0.000
Carp	0.000	1.000	0.000
Catfish	0.000	0.900	0.100
Clam	0.840	0.000	0.160
Cod	1.000	0.000	0.000
Conch	1.000	0.000	0.000
Crab	0.273	0.000	0.727
Crayfish	0.000	1.000	0.000
Croaker	0.071	0.050	0.879
Eel	0.000	1.000	0.000
Fish not specified	0.520	0.160	0.320
Flatfish	0.870	0.000	0.130
Haddock	0.945	0.050	0.006
Halibut	0.780	0.000	0.220
Herring	0.304	0.010	0.686
Jellyfish	0.000	0.000	1.000
Lobster	0.044	0.000	0.956
Mackerel	0.411	0.000	0.589
Mullet	0.000	0.000	1.000
Mussel	0.000	0.000	1.000
Octopus	0.620	0.000	0.380
Oyster	0.000	0.000	1.000
Perch	0.000	1.000	0.000
Pike	0.000	1.000	0.000
Pompano	0.661	0.002	0.338
Roe	0.085	0.235	0.680
Salmon	0.960	0.005	0.035
Sardine	0.900	0.000	0.100
Scallop	0.000	0.000	1.000
Scup/Porgy	0.981	0.000	0.019
Sea Bass	0.925	0.025	0.050
Shad	0.304	0.010	0.686
Shark	0.866	0.000	0.134
Shrimp	0.176	0.000	0.824
Snail	0.450	0.100	0.450
Snapper	0.981	0.000	0.019
Squid	0.800	0.000	0.200
Sturgeon	0.000	0.420	0.580
Swordfish	1.000	0.000	0.000
Trout	0.106	0.869	0.025
Tuna	1.000	0.000	0.000
Whelk	0.000	0.000	1.000
Whitefish	0.877	0.000	0.123
Whiting	1.000	0.000	0.000
Tilapia	0.000	0.500	0.500
Rockfish/Ocean Perch	0.925	0.000	0.075
Breaded Fish Products	1.000	0.000	0.000

439 **4.1.1 NHANES Fish Groupings**

440 When the raw 24-hr recall data are processed by NHANES, fish species reported consumed are  
 441 combined. The list below presents the fish groups that are specified in NHANES data and the  
 442 additional species that are included in each.

443

444	• Abalone	480	• Octopus
445	• Anchovy	481	• Oysters
446	• Barracuda	482	• Perch (freshwater bass; bluegill; crappie; sunfish; and walleye)
447	• Carp (bream; buffalofish; and sucker)	483	• Pike (muskellunge; and pickerel)
448	• Catfish (bullhead)	484	• Pompano (akule; blackfish; bluefish; butterfish; dolphinfish; jack; mahimahi; paplo; parrot fish; sablefish; scad; tilefish; ulva; and yellowtail)
449	• Clams	485	• Porgy (scup; sea bream; marine sheepshead; and snapper)
450	• Cod	486	• Ray (skate) [not reported ever consumed]
451	• Conch	487	• Roe
452	• Crab	488	• Roe, sturgeon (caviar)
453	• Crayfish	489	• Salmon (saltwater trout)
454	• Croaker (angelfish; butterflyfish; drumfish; goatfish; kingfish; sea trout; freshwater sheepshead; spadefish; spot; surgeonfish; weakfish; weke; goo; and gaspergou)	490	• Sardines
455		491	• Scallops
456		492	• Sea bass (grouper; striped bass; wreakfish; and bass)
457		493	• Shark (dogfish; and grayfish)
458		494	• Shrimp
459	• Eel	495	• Smelt [not reported ever consumed]
460	• Fish stick, patty, or fillet, not specified as to type (commercial products such as Mrs. Paul's, Gorton's, Van de Kamp's)	496	• Snails
461		497	• Snapper
462		498	• Squid (cuttlefish)
463		499	• Sturgeon
464	• Fish, not specified as to type	500	• Swordfish (marlin)
465	• Flounder (dab; fluke; halibut; sole; and turbot)	501	• Tilapia
466		502	• Trout (cisco; lake herring; steelhead; and whitefish)
467	• Haddock (blowfish; burbot; cusk; hake; ling; monkfish; pollock; and scrod)	503	• Tuna (ahi; aku; and bonito)
468		504	• Whelk
469		505	• Whitefish
470	• Halibut	506	• Whiting
471	• Herring (alewife; milkfish; and shad)	507	
472	• Jellyfish	508	
473	• Lobster	509	
474	• Mackerel (garfish; ono; needlefish; and wahoo)	510	
475		511	
476	• Mullet	512	
477	• Mussels	513	
478	• Ocean perch (bocaccio; menpachi; orange roughy; redfish; and rockfish)	514	
479		515	

516

517 This grouping of species complicates the assignment of habitat because in many cases the grouped  
518 fish inhabit different habitats. For example, burbot, a freshwater fish, is part of the haddock group,  
519 which is defined by the Order Gadiformes (excluding cod). All of the other species in this group are  
520 marine and estuarine. For these groups, we used NHANES files from 2007-08 (the only available)  
521 that provide the number of times a species was reported by all participants. Using the haddock  
522 group as an example, in 2007-08 blowfish, burbot, cusk, hake, ling, and monkfish were reported 0  
523 times, pollock was reported 10 times, scrod was reported 2 times, and haddock was reported 4  
524 times. These counts were then used to assign proportions of each species in the group to the total  
525 group. No species in a group was assigned 0 percent based on a 0 count in the files because it may  
526 be reported in another NHANES cycle. The assigned proportions were then multiplied by the  
527 habitats and summed to get the total habitat proportions for the fish group.

Deleted: ,

#### 529 **4.1.2 Use of NOAA Landings Data**

530 Other assignments were complicated by the fact that a species lives in multiple habitat types, either  
531 at different life stages or because different species occupy different habitats. For these species,  
532 habitat apportionment was aided by using the National Oceanographic and Atmospheric  
533 Administration (NOAA) landings data (<http://www.st.nmfs.noaa.gov/commercial-fisheries/>).

534  
535 Table 2 is an example of the NOAA landings data for clams for 2010. In order to apportion the  
536 total consumption of clams to estuarine and marine, we first assigned a habitat to each clam species  
537 listed. According to these data, excluding the catch-all category, 84 percent of all clam landed in  
538 2010 was from the marine environment and 16 percent was from the estuarine environment  
539 (multiplying the proportion of total without catch-all by the habitat proportion for each species and  
540 then summing for each habitat). These proportions excluding the catch-all category were then  
541 applied to the catch-all category, and the overall proportions were re-calculated.

542  
543 This methodology was used to assist the apportionment of the following species: catfish, clam, crab,  
544 flatfish, flounder, sole, halibut, lobster, mackerel, porgy, shrimp, and whiting.

546  
547

Table 2. NOAA landings data, clam apportionment

	Pounds Landed, 2010	Proportion of Total	Proportion of Total (w/o catch-all category)	Habitat	Habitat Percent
CLAM, ARC, BLOOD	23,738	0.0003	0.0003	estuarine & marine harvested near coast	100E
CLAM, ATLANTIC JACKKNIFE	67,334	0.0008	0.0008	estuarine	100E
CLAM, ATLANTIC SURF	37,465,740	0.4188	0.4542	marine	100M
CLAM, BUTTER	15,133	0.0002	0.0002	estuarine & marine harvested near coast	100E
CLAM, MANILA	937,915	0.0105	0.0114	estuarine	100E
CLAM, NORTHERN QUAHOG	4,406,313	0.0493	0.0534	estuarine	100E
CLAM, OCEAN QUAHOG	31,704,091	0.3544	0.3844	marine	100M
CLAM, PACIFIC GEODUCK	2,777,529	0.0310	0.0337	estuarine & marine harvested near coast	100E
CLAM, PACIFIC LITTLENECK	26,811	0.0003	0.0003	estuarine & marine harvested near coast	100E
CLAM, PACIFIC RAZOR	138,826	0.0016	0.0017	marine	100M
CLAM, PACIFIC, GAPER	6,061	0.0001	0.0001	estuarine & marine harvested near coast	100E
CLAM, QUAHOG	634,131	0.0071	0.0077	estuarine	100E
CLAM, SOFTSHELL	4,278,356	0.0478	0.0519	estuarine & marine harvested near coast	100E
CLAMS OR BIVALVES	6,980,468	0.0780		estuarine & marine (catch-all category)	16E/84M
<b>Total Pounds</b>	<b>89,462,446</b>				
<b>Total Pounds w/o catch-all</b>	<b>82,481,978</b>				
w/o catch-all	Proportion Estuarine	<b>0.15971</b>			
	Proportion Marine	<b>0.84029</b>			
<b>Total</b>	<b>Proportion Estuarine</b>	<b>0.15973</b>			
	<b>Proportion Marine</b>	<b>0.84027</b>			

548

### 549 4.1.3 Imported Fish and Farmed Fish

550 It is known that the US imports a large proportion of the fish consumed from overseas. According  
551 to NOAA Fish Watch, 86 percent of the fish consumed in the US is imported  
552 ([http://www.fishwatch.gov/wild\\_seafood/outside\\_the\\_us.htm](http://www.fishwatch.gov/wild_seafood/outside_the_us.htm)). The top imported species are  
553 shrimp, freshwater fish (mainly tilapia and catfish), tuna, salmon, groundfish (e.g., cod, haddock,  
554 flounder), crab, and squid. As marine fish are not harvested from US waters for which states would  
555 be developing water quality standards, the issue of importation for these species is not relevant.  
556 However, shrimp is the most commonly consumed fish by US consumers. It is unknown whether  
557 the proportion consumed that was harvested in non-US waters is distributed equally across the  
558 distribution of fish consumers. For example, it is possible that high fish consumers eat more locally  
559 caught fish as they may be more likely to be recreational or subsistence fishers. For the purposes of  
560 developing UFCR, we assumed that all estuarine, freshwater, and near coastal fish that were  
561 consumed were from US waters. The reason for this is that standards need to be set to enable  
562 residents to safely consume from local waters the amount of fish they would normally consume  
563 from all fresh and estuarine (including near coastal) waters.

564 There are similar issues with farmed freshwater fish. Freshwater fish can be farmed in man-made  
565 ponds or tanks for which the states will not be developing water quality standards. However, as  
566 noted above in the discussion concerning imported fish, the proportion of freshwater fish  
567 consumed that is farmed, may not be evenly distributed across the distribution of consumption.  
568 Again, it is possible that high fish consumers are eating locally caught fish through recreational or  
569 subsistence fishing and thus eating a smaller proportion of farmed fish than those at the middle and  
570 low end of the consumption distribution. Thus farmed species were assumed to be wild caught. This  
571 allows residents to safely consume from local waters the amount of fish they would normally  
572 consume from fish farms.

Deleted: will be

### 575 4.2 Trophic Level Assignments

576 The trophic level of an organism is the place it is in the food web. Organisms with higher trophic  
577 levels have higher exposures to environmental contaminants.

- 578
- 579 • Trophic level 1 organisms are primary producers (plants and algae).
- 580 • Trophic level 2 organisms are herbivores, also called primary consumers.
- 581 • Trophic level 3 organisms are carnivores that consume primary consumers.
- 582 • Trophic level 4 organisms are carnivores that consume other carnivores.
- 583 • Trophic level 5 organisms are the apex predators.
- 584

585 Trophic level assignments were made using the data provided in the following documents:

- 586
- 587 1. Table 6-4 in Methodology for Deriving Ambient Water Quality Criteria for the Protection of  
588 Human Health (2000) Technical Support Document Volume 2: Development of National  
589 Bioaccumulation Factors. December 2003. EPA-822-R-03-030.
- 590 2. Trophic Level and Exposure Analyses for Selected Piscivorous Birds and Mammals. Volume  
591 III: Appendices. September 2002.
- 592

594 For species that were not in those documents, we performed a search of literature available on the  
595 internet and applied the same rules that were described in the December 2003 document:

- 596
- 597 • For game fish, data were used for edible size ranges (about 20 cm [8 inches] or larger).
  - 598 • For species where multiple size ranges were available, preference was given to the larger  
599 specimens in determining the species trophic level.
  - 600 • Trophic level 2 was assigned to a species if appropriate trophic level data ranged between 1.6  
601 and 2.4; trophic level 3 if trophic level data ranged from 2.5 to 3.4; and trophic level 4 if  
602 trophic level data were 3.5 or higher. This is consistent with the approach taken in the Great  
603 Lakes Water Quality Initiative guidance (USEPA, 1995b).
  - 604 • In determining NHANES grouping trophic level assignments, best professional judgment  
605 was used. For example, the NHANES grouping for catfish includes four species that are  
606 assigned to trophic level 3 and three species assigned to trophic level 4. Thus, it is assumed  
607 that half (50 percent) of consumption in the catfish NHANES grouping is from TL3 and  
608 half from TL4.

609  
610 Table 3 presents the final trophic level assignments.

611 Table 3. Trophic Level Assignments  
 612

Fish Species/Group	Proportion of Assigned to Trophic Level		
	Trophic Level 2	Trophic Level 3	Trophic Level 4
ABALONE	1	0	0
ANCHOVY	0.5	0.5	0
BARRACUDA	0	0	1
CARP	0	1	0
CATFISH	0	0.5	0.5
CLAM	1	0	0
COD	0	0	1
CONCH	1	0	0
CRAB	0	1	0
CRAYFISH	0	1	0
CROAKER	0	0.5	0.5
EEL	0	0	1
FLATFISH	0	0.5	0.5
HADDOCK	0	0	1
HALIBUT	0	0	1
HERRING	0	1	0
JELLYFISH	1	0	0
LOBSTER	0	1	0
MACKEREL	0	0	1
MULLET	1	0	0
MUSSEL	1	0	0
ROCKFISH/OCEAN PERCH	0	0	1
OCTOPUS	0	0.5	0.5
OYSTER	1	0	0
PERCH	0	0	1
PIKE	0	0	1
POMPANO	0	0	1
PORGY/SCUP	0	0	1
ROE	0	0	0
SALMON	0	0	1
SARDINE	0	1	0
SCALLOP	1	0	0
SEA BASS	0	0	1
SHAD	0	1	0
SHARK	0	0	1
SHRIMP	0.5	0.5	0
SNAIL	1	0	0
SNAPPER	0	0	1
SQUID	0	0.5	0.5
STURGEON	0	0	1
SWORDFISH	0	0	1
TROUT	0	0	1
TUNA	0	0	1
WHELK	1	0	0
WHITEFISH	0	1	0
WHITING	0	1	0
TILAPIA	1	0	0
BREADED FISH PRODUCTS	0	0.5	0.5
FISH NOT SPECIFIED	0	0.5	0.5

613 **4.3 Extracting Reported Amounts of Fish Consumed**

614 The FNDDS files were searched to find all food codes that contain finfish and/or shellfish. These  
615 records were then processed to determine the percent of each food code that is fish. During this  
616 processing, each fish ingredient in the recipe was proportioned to marine, estuarine, and freshwater  
617 habitat and to trophic levels 2, 3, and 4, as discussed in Sections 4.1 and 4.2. Each of these values  
618 was summed, along with total fish percent, across all fish-containing ingredients to get total values  
619 for each habitat, trophic level, and total fish for each fish-containing food code.

620  
621 Some ingredients are pre-processed, such as canned tuna. In order to adjust for moisture loss during  
622 the processing, adjustment factors were applied to the proportions. The adjustment factors applied  
623 were those used in the analysis of the CSFII data published in 2002 (EPA, 2002) and were also used  
624 in the Mercury Report to Congress (EPA, 1997). Table 4 provides the adjustments applied to  
625 processed ingredients.

626  
627 **Table 4. Processing Adjustments**

628

Processing Method	Percent moisture loss
Canned	25
Fried	12
Cooked, dry heat	25
Steamed or poached	21
Dried and salted	80
Pickled	15
Kippered	10
Salted	30
Smoked salmon	5
Smoked sturgeon	16
Smoked tuna	21
Smoked cisco	30
Smoked haddock	11

629  
630  
631 Appendix B provides a list of all fish-containing food codes reported consumed extracted from the  
632 NHANES data along with:

- 633
- 634 • The number of records of that food code in the data
  - 635 • The percent of all records that food code makes up
  - 636 • The description of the food
  - 637 • The fish ingredient description, if more than one
  - 638 • The proportion of the food code that is that ingredient
  - 639 • Form of ingredient (raw, canned, etc.)
  - 640 • Moisture loss due to pre-processing
  - 641 • The multiplier to calculate total fish
  - 642 • The multiplier to calculate marine fish
  - 643 • The multiplier to calculate freshwater fish

- 644 • The multiplier to calculate estuarine fish
- 645 • The multiplier to calculate shellfish
- 646 • The multiplier to calculate finfish
- 647 • The multiplier to calculate trophic level 2
- 648 • The multiplier to calculate trophic level 3
- 649 • The multiplier to calculate trophic level 4

650  
651

## 652 **4.4 Statistical Methods**

### 653 **4.4.1 Overview of the NCI method**

654 For an individual, “usual fish consumption” is the long-term mean fish consumption rate expressed  
655 in units such as grams per day. When using the NHANES data for estimation of the distribution of  
656 usual fish consumption across individuals, the NCI method can be used, fitting a statistical model to  
657 the reported fish consumption from two 24-hour dietary recalls. The calculations require two or  
658 more dietary recalls with non-zero fish consumption for at least some survey respondents. The  
659 statistical model has two sub-models: one predicting the long-term probability of fish consumption  
660 in a 24-hour period and, for those that reported some fish consumption, a second model predicting  
661 the long-term mean daily amount of fish consumed. The usual fish consumption (or usual fish  
662 intake) is the product of the probability of fish consumption and the mean amount of fish  
663 consumed.

664  
665 The sub-model predicting the probability of fish consumption in a 24-hour period has two variance  
666 components, person-level random effects for an individual’s long-term probability of consuming  
667 fish and within-individual binomial variation between days when fish was or was not consumed. The  
668 logit-transformed person-level random effects are assumed to be normally distributed.

669  
670 The amount sub-model involves a Box-Cox transformation such that the transformed amount of  
671 fish consumed in a 24-hour recall is reasonably normally distributed. In the transformed units, the  
672 amount sub-model has two variance components, person-level random effects for an individual’s  
673 long-term mean fish consumption and within-individual differences in the amount of fish consumed  
674 on different days. In the transformed units, the person-level mean fish consumption and the within-  
675 individual daily fish consumption are assumed to have normal distributions.

676  
677 The person-level random effects may be correlated, for example, those with a higher probability of  
678 consuming fish in a 24-hour period may also tend to consume larger daily amounts of fish.

679  
680 Both sub-models can have additional predictors, such as person-level demographic characteristics  
681 and reported frequency of fish consumption. In addition, the model can incorporate the following  
682 within-person predictors: 1) differences between weekends (Friday to Sunday) and weekdays  
683 (Monday to Thursday), and 2) consistent differences between the first 24-hour recall and the second  
684 24-hour recall in NHANES (the first was completed in person and the second was completed by  
685 phone).

686 For the US population, the usual fish consumption distribution across the population can be  
 687 estimated by simulating the person-level random effects, calculating the usual fish consumption for  
 688 each respondent and pair of simulated random components, and calculating weighted estimates of  
 689 the usual fish consumption using the NHANES weight and design variables.

Deleted: NHANES

Deleted: obtained

691 EPA created a SAS macro to approximate the results from the NCI method while taking  
 692 considerably less time for the calculations. The following describes both the NCI and modified  
 693 models.

#### 695 4.4.2 Calculation steps for the NCI and Modified Models

696 The NCI method can be implemented using two SAS macros (programs) available from the NCI  
 697 website (the MIXTRAN and DISTRIB macros). The equations fit using the NCI macros are  
 698 presented below.

700 For individual  $i$ , let  $\mathbf{X}_{ik}$  = individual level covariates. For the  $j^{\text{th}}$  24-hour dietary recall for individual  $i$ ,  
 701 let  $A_{ij}$  equal the grams of fish consumed as reported in a 24-hour dietary recall,  $P_{ij}$  = the probability  
 702 of consuming fish in a 24-hour period,  $W_{ij}$  indicate whether the 24-hour recall was for a weekend  
 703 ( $W_{ij} = 1$ ) or a weekday ( $W_{ij} = 0$ ), and  $S_{ij}$  indicate if the 24-hour recall was the first (in-person,  
 704  $S_{ij} = 0$ ) or the second (by phone,  $S_{ij} = 1$ ) dietary recall. The usual daily consumption is the  
 705 weighted average of the weekday and weekend estimates. The NCI macro fits some preliminary  
 706 models to obtain approximate parameter estimates to use as starting values for the NLMIXED  
 707 procedure which fits the following set of equations at one time, using maximum likelihood. In these  
 708 equations, the parameters for the probability model are represented by  $\boldsymbol{\pi}$ , the parameters for the  
 709 amount model are represented by  $\boldsymbol{\alpha}$ , and standard deviations of the variance components are  
 710 represented by  $\boldsymbol{\sigma}$ , and the correlation of the person-level random effects is  $\rho$ .

$$C_{ij} = \begin{cases} 0 & A_{ij} = 0 \\ 1 & A_{ij} > 0 \end{cases}$$

$$\text{Logit}(P_{ij}) = \log\left(\frac{P_{ij}}{1 - P_{ij}}\right) = \pi_0 + \mathbf{X}_{ik}\boldsymbol{\pi}_{Xk} + \pi_i + W_{ij}\pi_W + S_{ij}\pi_S$$

$$C_{ij} \sim \text{Binomial}(1, P_{ij})$$

$$\text{If } A_{ij} > 0 \text{ then } T_{ij} = \frac{A_{ij}^\lambda - 1}{\lambda} = \alpha_0 + \mathbf{X}_{ik}\boldsymbol{\alpha}_{Xk} + \alpha_i + W_{ij}\alpha_W + S_{ij}\alpha_S + \alpha_{ij}$$

$$\alpha_{ij} \sim \text{Normal}(0, \sigma_3)$$

$$[\pi_i \quad \alpha_i] \sim \text{BNormal}\left([0 \quad 0], \begin{bmatrix} \sigma_1 & \rho \\ \rho & \sigma_2 \end{bmatrix}\right)$$

719 EPA created a SAS macro to approximate the results from the NCI macro while taking considerably  
 720 less computing time. The equations for the EPA macro are described below.

721 In the NCI method, the maximum likelihood procedure finds the best transformation, defined by  $\lambda$ ,  
 722 consistent with the model and the assumption that the random effects are normally distributed. In  
 723 the approximate approach used by EPA, the user specifies the transformation by specifying  $\lambda = \lambda^*$ .  
 724 The macro prints the correlation between the residuals and the associated normal scores as well as a

727 normal scores plot to help evaluate the choice of  $\lambda^*$ . The transformed consumption amounts for 24-  
 728 hour recalls with reported fish consumption are:

729

$$730 \quad T_{ij} = \frac{A_{ij}^{\lambda^*} - 1}{\lambda^*}$$

731

732 The following summary statistics are calculated for each person:

733

$$734 \quad \bar{S}_i = \text{Mean}_j(S_{ij}), \bar{W}_i = \text{Mean}_j(W_{ij}), D_i = \text{Sum}_j(C_{ij}), N_i = \text{Count}_j(C_{ij})$$

735

736 For person  $i$ ,  $N_i$  is the number of 24-hour recalls and  $D_i$  is the number of 24-hour recalls with  
 737 reported fish consumption.

738

739 The following logistic regression model was fit using the SAS SurveyLogistic procedure and the  
 740 specified survey weights (using the NHANES strata and PSU variables). This logistic regression  
 741 model predicts the probability of consuming fish in a 24-hour recall without including the person-  
 742 level random effect.

743

$$744 \quad \text{Logit}(P) = \log\left(\frac{P}{1-P}\right) = \pi_0 + \mathbf{X}_{ik}\boldsymbol{\pi}_{Xk} + \bar{W}_i\pi_W + \bar{S}_i\pi_S$$

745 The person-level random effect is included by assuming the predicted logit when excluding the  
 746 random effect is proportional to the predicted logit when including the random effect. The  
 747 following model was fit subject to the constraint that the mean weighted  $P$  from the model above is  
 748 equal to the expected weighted mean of  $P_i$ . This is fit by iteratively 1) selecting the standard  
 749 deviation of the random effect ( $\sigma_1$ ), 2) finding  $\beta$  such that  $\text{Mean}_i(P) = E(\text{Mean}_i(P_i))$ , and 3)  
 750 calculating the expected weighted Chi-square for predicting the observed data. The expected values  
 751 were calculated using numerical integration. The final parameters minimize the Chi-square statistic.

752

$$753 \quad \text{Logit}(P_i) = \log\left(\frac{P_i}{1-P_i}\right) = \text{Logit}(P)\beta + \pi_i$$

754

$$755 \quad \pi_i \sim \text{Normal}(0, \sigma_1), \beta \text{ set so that } \text{Mean}_i(P) = E(\text{Mean}_i(P_i))$$

756

757 The correlation between the person-level random effects for the probability sub-model and the  
 758 amount sub-model is approximated by calculating a residual from the probability model and using it  
 759 as a predictor in the amount sub-model. The residual from the probability model is:

760

$$761 \quad R_i = \frac{D_i}{N_i} - \text{Logistic}(\text{Logit}(P)\beta)$$

762 The SAS SurveyReg procedure is used to fit the amount sub-model using only the records from the  
 763 first 12-hour recall ( $S_{ij} = 0$ ). The variance of the regression error ( $\sigma_4$ ) is the sum of the variance of  
 764 the person-level random effect and the within-person variation.

765

$$766 \quad \text{If } D_i > 0 \text{ then } \bar{T}_i = \alpha_0 + \mathbf{X}_{ik}\boldsymbol{\alpha}_{Xk} + \alpha_i^* + W_{i1}\alpha_{WB} + R_i\alpha_R$$

$$767 \quad \alpha_i^* \sim \text{Normal}(0, \sigma_4)$$

768  
769 The variance of the within-person variance component is estimated from the differences between  
770 the first and second 24-hour recalls adjusted for consistent differences between the recalls and for  
771 weekday to weekend differences. The following model was fit to estimate the within-person  
772 variance.

773  
774 *If  $D_i > 1$  then  $(A_{i2} - A_{i1}) = \alpha_S + (W_{i2} - W_{i1})\alpha_{WW} + \alpha_{i*}$ , where  $\alpha_{i*} = (\alpha_{i2} + \alpha_{i1})$*   
775

776 The variance of the within person-level random effect is estimated from the RMSE calculated by the  
777 SURVEYREG procedure:

778  
779 
$$\sigma_3^2 = \frac{RMSE^2}{2}$$

780 The variance of the person-level random effect is:  
781

782  
783 
$$\sigma_2^2 = \sigma_4^2 - \sigma_3^2$$

784  
785 If the estimate of  $\sigma_2^2$  is less than zero, then:  
786

787 
$$\sigma_2^2 = 0, \sigma_3^2 = Mean\left(\sigma_4^2, \frac{RMSE^2}{2}\right)$$

788  
789 The model for within-person differences and the person-level model both have parameters for the  
790 weekend versus weekday difference. For the simulations below, the weighted average of these two  
791 parameters was used, with weights inversely proportional to the square of the standard errors.

792  
793 Both the NCI macro and the EPA macro use the NHANES survey weights for all the calculations  
794 (i.e., weighted regressions and weighted estimates of the variance components). Calculation of  
795 standard errors requires: 1) calculation of replicate weights consistent with the NHANES survey  
796 design and strata and PSU variables; 2) running the macros using the full-sample weight and each  
797 replicate weight; and 3) combining the results to estimate the standard errors.  
798

#### 799 **4.4.3 Simulation of the Usual Fish Consumption**

800 With the parameter estimates, the NCI method simulates values using the model parameters with  
801 the following modifications:

- 802  
803
- 804 • The predicted values reflect a standard week (3 weekend days and 4 weekday days) rather than the distribution of weekday and weekend recalls in the data.
  - 805 • The predicted values assume the first (in-person) 24-hour recall is unbiased by ignoring the difference between the first and second recall, i.e.,  $\alpha_S = \pi_S = 0$ .
  - 806 • The predicted values do not include the within-person variation, i.e., binomial variation for within person variation in the probability of fish consumption and the within-person variation in the amount of fish consumption, when consumed.
- 807  
808  
809

Deleted:

Deleted:

812 The number of simulated values for each person can be specified. The default number is 100. In the  
 813 equations below, the U subscript represents the simulation number.

814  
 815 The following equations are used to simulate an individual's long-term probability of fish  
 816 consumption ( $Q_{Ui}$ ) and long-term mean (usual) fish consumption when fish is consumed ( $T_{Ui}$ ). In  
 817 the equations below, the logistic function is the inverse of the Logit function.

$$818 \quad Q_{Ui} = \text{Logistic} \left( \pi_0 + \mathbf{X}_{ik} \boldsymbol{\pi}_{Xk} + \pi_{Ui} + \frac{3}{7} \pi_W \right)$$

$$819 \quad T_{Ui} = \alpha_0 + \mathbf{X}_{ik} \boldsymbol{\alpha}_{Xk} + \alpha_{Ui} + \frac{3}{7} \pi_W$$

$$820 \quad [\pi_{Ui} \quad \alpha_{Ui}] \sim \text{BNormal} \left( [0 \quad 0], \begin{bmatrix} \sigma_1 & \rho \\ \rho & \sigma_2 \end{bmatrix} \right)$$

821  
 822 A slightly modified version of these equations is used for the simulated values using the EPA  
 823 procedure. In particular, the EPA equation requires simulating the residual from the probability  
 824 model for use in the amount model. The EPA equations are:

$$825 \quad Q_{Ui} = \text{Logistic} \left( (\pi_0 + \mathbf{X}_{ik} \boldsymbol{\pi}_{Xk}) \beta + \pi_{Ui} + \frac{3}{7} \pi_W \right)$$

$$826 \quad D_{Ui} \sim \text{Binomial}(N_i, Q_{Ui})$$

$$827 \quad R_{Ui} = \frac{D_{Ui}}{N_i} - \text{Logistic} \left( (\pi_0 + \mathbf{X}_{ik} \boldsymbol{\pi}_{Xk} + \frac{3}{7} \pi_W) \beta \right)$$

$$828 \quad T_{Ui} = \alpha_0 + \mathbf{X}_{ik} \boldsymbol{\alpha}_{Xk} + \alpha_{Ui} + \frac{3}{7} \alpha_W + R_{Ui} \alpha_R$$

$$829 \quad [\pi_{Ui} \quad \alpha_{Ui}] \sim \text{BNormal} \left( [0 \quad 0], \begin{bmatrix} \sigma_1 & 0 \\ 0 & \sigma_2 \end{bmatrix} \right)$$

830  
 831 Finally, the simulated transformed consumption amounts are untransformed using the following  
 832 equation:

$$833 \quad B_{Ui} = (T_{Ui} \lambda + 1)^{(1/\lambda)} + \frac{\sigma_3^2 (1 - \lambda)}{2} (T_{Ui} \lambda + 1)^{(1/\lambda - 2)}$$

834  
 835 This equation includes an adjustment with the within person variance in the fish consumption  
 836 amount ( $\sigma_3^2$ ). This adjustment makes the untransformed fish consumption essentially unbiased  
 837 compared to the original mean across the 24-hour recalls.

838  
 839 Although when  $A_{ij} = 0$  the transformed fish consumption is defined ( $T_{ij} = \frac{-1}{\lambda}$ ), it is possible to  
 840 simulate a value such that  $T_{Ui} < \frac{-1}{\lambda}$ , for which the untransformed value is not defined. In the NCI

849 macro, these small simulated values in the transformed scale are set to half of the minimum reported  
850 fish consumption for any 24-hour recall. The same assumption is used in the EPA calculations.  
851 The usual fish consumption for a simulated person is then:

$$U_{ui} = Q_{ui}B_{ui}$$

852  
853  
854 Summary statistics for the usual fish consumption, such as means and percentiles, can be calculated  
855 using the simulated values and the NHANES survey weights.  
856  
857

#### 858 **4.4.4 Calculation of Confidence Intervals**

859 Various summary statistics (means and percentiles) are calculated using the simulated usual fish  
860 consumption values. Since the usual fish consumption values are generally skewed with a roughly  
861 lognormal distribution, calculating the confidence intervals on the log scale appears reasonable and  
862 has the beneficial effect that confidence limits cannot be negative. As a result, the confidence  
863 intervals for the summary statistics are calculated by 1) fitting the NCI model or EPA model using  
864 the full sample weight and each replicate weight; 2) log-transforming the estimates; 3) calculating the  
865 standard deviation of the estimates using the appropriate formulas for the BRR weights; 4)  
866 calculating confidence intervals for the estimates assuming a normal distribution; and 5) un-  
867 transforming the confidence interval bounds.  
868

#### 869 **4.4.5 Application of Modified NCI Method**

870 For each fish type the NCI Method MIXTRAN macro was used to determine a starting  $\lambda$  using the  
871 transformed frequency  
872 of consumption as a predictor in the model. The Modified NCI Method was then used to  
873 determine the  $\lambda$  that provided the highest correlation by running the model with the starting  $\lambda$  and  
874 then lowering and raising  $\lambda$  in consecutive runs while including all significant predictors (age, gender,  
875 race/ethnicity, income, coastal/inland region, log-transformed body weight, and interactions  
876 between race/ethnicity and age, race/ethnicity and coastal/inland region, and age and coastal/inland  
877 region). For the trophic level by habitat fish types (e.g., trophic level 2 freshwater + estuarine fish)  
878 the interaction terms were not included in the models due to the low number of persons reporting  
879 consumption on both recalls for those fish types. When the best lambda was determined, the  
880 Modified NCI Method was run for all replicate weights. The number of simulations was set to five.  
881

882 Confidence intervals for summary statistics were then calculated as described in Section 4.4.4.  
883

#### 884 **4.4.6 Comparison of Estimates to NCI Method**

885 In order to evaluate how estimates from the Modified NCI Method compared to estimates from the  
886 full NCI Method, we ran simplified comparable models. The results from this exercise are presented  
887 in Section 5.3.

## 5 Results

888

889

890 This section presents the sample sizes and the estimated UFCR for all fish and shellfish for adults  
891 and youth, by demographics and geography. Full tables including rates for the total population  
892 (youth and adults combined) and rates for freshwater fish, estuarine fish, marine + freshwater fish,  
893 marine + estuarine fish, and trophic level by habitat are in Appendix C. The tables in Appendix C  
894 include approximate p-values indicating the significance of the differences within subpopulations.  
895

896 Note that the adult population is defined as people aged 21 years and over. The US EPA Exposure  
897 Factors Handbook classifies those aged 21 years and over as adults. Children are grouped as follows:  
898 3 to <6 years, 6 to <11 years, 11\_to <16 years, 16 to <18 years, and 18 to <21 years.  
899

### 5.1 Sample Size

901 Table 5 presents the sample sizes for each subpopulation that reported fish consumption on at least  
902 one 24-hour recall. An expanded table that includes the other fish types for which rates were  
903 calculated can be found in Appendix C.

904 The model for each fish type was fit using data from the total population. The simulated data were  
905 then summarized by subsets, such as age, race/ethnicity, and region.  
906

907  
908

Table 5. Sample Size and Number Reporting Fish Consumption, by Fish Type

	N	Any Fish	FW+Est	Marine	Finfish	Shellfish	Trophic Level 2	Trophic Level 3	Trophic Level 4
<b>Total</b>	29,463	6,890	4,964	6,285	5,320	2,439	2,705	4,463	4,546
<b>Gender</b>									
Female	15,694	3,806	2,725	3,494	2,924	1,345	1,494	2,434	2,498
Male	13,769	3,084	2,239	2,791	2,396	1,094	1,211	2,029	2,048
<b>Age, years</b>									
1 to <3	2,325	345	204	305	272	98	111	209	242
3 to <6	2,185	350	200	322	277	104	118	225	246
6 to <11	2,705	454	270	416	367	126	143	286	313
11 to <16	2,806	445	318	402	322	162	180	296	268
16 to <18	1,417	252	180	237	171	96	98	173	155
18 to <21	1,662	311	213	294	227	128	131	209	197
21 to <35	4,381	1,070	815	992	761	489	531	745	645
35 to <50	4,522	1,332	1,018	1,221	1,023	497	566	883	839
50 to <65	3,730	1,216	918	1,101	971	424	468	775	836
65 and older	3,730	1,115	828	995	929	315	359	662	805
WCA (13 to 49 years)	7,870	1,919	1,421	1,785	1,409	768	839	1,300	1,179
<b>Income</b>									
<\$20k	6,679	1,374	920	1,256	1,091	432	491	911	926
\$20k to <\$45k	8,955	1,968	1,405	1,774	1,501	695	791	1,285	1,258
\$45k to <\$75k	5,561	1,334	979	1,211	1,039	465	511	856	898
\$75k and over	6,288	1,768	1,336	1,634	1,352	687	740	1,108	1,166
>\$20k	825	203	153	182	149	72	86	140	126
Ref/DK income	808	164	118	153	126	57	57	111	116
Income missing	347	79	53	75	62	31	29	52	56
<b>Race/Ethnicity</b>									
Mexican American	6,868	1,350	961	1,212	970	524	618	886	823
Other Hispanic	2,405	532	353	490	403	177	202	329	348
Non-Hispanic white	11,980	2,678	1,904	2,509	2,075	955	1,006	1,573	1,835
Non-Hispanic black	6,734	1,818	1,333	1,603	1,464	589	669	1,291	1,184
Other race	1,476	512	413	471	408	194	210	384	356
<b>US Region</b>									
Midwest	6,445	1,235	855	1,070	968	381	431	773	840
Northeast	4,475	1,202	814	1,154	912	447	445	733	806
South	11,036	2,687	1,965	2,415	21,090	950	1,086	1,827	1,732
West	7,507	1,766	1,330	1,646	1,331	661	743	1,130	1,168
<b>Coastal Status</b>									
Noncoastal	17,251	3,718	2,584	3,376	2,903	1,214	1,344	2,362	2,546
Coastal	12,212	3,172	2,380	2,909	2,417	1,225	1,361	2,101	2,000
<b>US Coastal/Inland Region</b>									
Pacific	3,802	976	747	900	747	369	425	621	644
Atlantic	4,646	1,320	960	1,247	1,011	488	524	865	835
Gulf of Mexico	1,370	361	296	316	275	186	203	269	202
Great Lakes	2,394	515	377	446	384	182	209	346	319
Inland Northeast	2,584	628	416	600	476	229	234	364	416
Inland Midwest	4,137	741	487	645	602	203	226	437	539
Inland South	6,825	1,559	1,098	1,385	1,241	490	566	1,052	1,067
Inland West	3,705	790	583	746	584	292	318	509	524

Commented [PG3]: Add a footnote defining this acronym

909

910 **5.2 UFCR Adults, 21 Years and Older**

911 Tables 6 through 16 present the UFCR estimates for adults 21 years and older for total fish,  
912 freshwater + estuarine fish, marine fish, trophic level 2 fish, trophic level 3 fish, trophic level 4 fish,  
913 trophic level 2 freshwater + estuarine fish, trophic level 3 freshwater + estuarine fish, and trophic  
914 level 4 freshwater + estuarine fish. The tables provide the 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup>, 97<sup>th</sup>, and 99<sup>th</sup>  
915 percentiles, along with their respective 95 percent confidence intervals.

916  
917 In the tables there are percentiles for total fish consumed and for various fish types that make up the  
918 total. The mean consumption for all fish should be equal, not counting random errors, to the sum of  
919 the mean consumption across different types of fish, e.g., marine, estuarine, and freshwater or  
920 trophic levels 2, 3, and 4. The same cannot be said about percentiles. At the extreme, the sum of the  
921 maximum fish consumption across fish types will not equal the maximum fish consumption for all  
922 fish except in the very unusual case where one individual is the largest consumer in all fish type  
923 categories. For a selected percentile, the difference between the sum of the percentiles across fish  
924 types and the percentile for all fish will increase as the percentile of interest increases from the 50th  
925 percentile to 90th percentile, 99th percentile, and the maximum. In general, the 90th percentile for  
926 all fish should be greater than the 90th percentile for any one type and less than the sum of the 90th  
927 percentiles across all types. The selected percentiles of the fish types would only sum to the same  
928 percentile of all fish if the fish consumption for different fish types were perfectly correlated.

929  
930 There are two tables for each fish type, a and b. Table a presents the UFCR by demographic factors  
931 (gender, age, income, and race/ethnicity) and table b presents the UFCR by geography.

932  
933

Table 6a. UFCR Estimates (g/day): Total Fish, Adults, 21 years and older, by demographics

Total Fish Adults ≥21 years old	Percentiles(95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	7.27 (4.5,11.7)	15.73 (11.9,20.7)	28.31 (23.1,34.6)	44.83 (37.1,54.2)	56.75 (46.7,69.0)	65.15 (52.8,80.3)	85.30 (67.9,107.2)
<b>Gender</b>							
Female	6.47 (3.8,11.1)	14.01 (10.4,18.8)	25.18 (20.2,31.4)	39.85 (32.2,49.3)	50.02 (40.6,61.6)	57.56 (46.5,71.2)	71.24 (54.6,93.0)
Male	8.71 (5.6,13.6)	18.11 (14.1,23.3)	32.29 (26.5,39.4)	50.97 (42.0,61.8)	64.06 (52.2,78.7)	74.82 (60.9,92.0)	97.15 (77.2,122.2)
<b>Age</b>							
21 to <35 yrs	5.13 (2.2,11.9)	13.07 (7.3,23.4)	24.45 (17.2,34.8)	40.55 (30.9,53.2)	53.21 (41.8,67.7)	62.05 (49.9,77.2)	86.18 (66.5,111.6)
35 to <50 yrs	7.57 (5.2,11.0)	15.50 (12.4,19.4)	27.40 (22.3,33.7)	42.77 (34.0,53.8)	53.97 (41.8,69.7)	61.78 (46.3,82.4)	78.66 (55.0,112.5)
50 to <65 yrs	11.27 (6.3,20.3)	21.30 (14.5,31.2)	36.06 (26.3,49.4)	53.88 (40.6,71.5)	65.64 (51.1,84.3)	75.37 (57.6,98.5)	95.56 (71.2,128.2)
65+ yrs	6.72 (4.7,9.6)	13.90 (9.9,19.5)	25.24 (18.5,34.5)	39.64 (28.6,55.0)	51.67 (38.8,68.9)	58.70 (41.7,82.6)	72.65 (45.8,115.3)
Women of Childbearing Age <sup>1</sup>	4.01 (2.2,7.3)	11.21 (7.7,16.4)	21.53 (16.8,27.5)	34.99 (28.6,42.9)	45.62 (37.2,56.0)	53.36 (43.0,66.2)	67.82 (53.6,85.8)
<b>Income</b>							
<\$20,000	4.47 (2.8,7.1)	11.97 (9.2,15.6)	23.26 (18.8,28.7)	37.42 (30.2,46.4)	48.81 (38.5,61.9)	57.88 (46.0,72.7)	83.56 (63.1,110.6)
\$20k-\$45k	6.32 (3.6,11.1)	13.81 (10.1,18.8)	24.56 (19.9,30.3)	39.26 (32.2,47.8)	51.10 (41.9,62.3)	59.00 (48.2,72.2)	77.40 (60.0,99.9)
\$45k-\$75k	6.94 (4.6,10.5)	15.30 (11.1,21.1)	27.60 (21.2,35.9)	43.26 (34.0,55.0)	55.12 (42.5,71.4)	63.46 (48.0,84.0)	81.60 (58.5,113.9)
\$75k+	9.99 (6.9,14.4)	19.35 (15.4,24.3)	33.90 (27.5,41.9)	51.38 (41.8,63.1)	62.26 (50.2,77.3)	71.28 (56.9,89.3)	90.52 (69.7,117.6)
>\$20,000	7.58 (3.9,14.6)	16.85 (9.2,30.9)	27.98 (18.5,42.3)	42.57 (28.7,63.2)	54.01 (36.3,80.3)	61.71 (41.6,91.5)	83.36 (52.9,131.4)
Inc Ref/DK	8.18 (2.1,32.2)	18.29 (7.6,44.0)	31.87 (17.2,58.9)	51.22 (27.2,96.5)	62.13 (36.6,105.5)	72.31 (40.2,130.2)	85.30 (55.2,131.7)
Inc missing	7.83 (1.0,59.5)	19.30 (4.3,87.3)	31.80 (12.2,83.1)	54.39 (21.2,139.3)	63.67 (30.6,132.5)	89.96 (29.1,277.9)	108.79 (39.6,299.0)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	6.35 (3.0,13.3)	16.02 (9.6,26.7)	28.10 (19.9,39.7)	43.86 (32.8,58.7)	55.33 (42.2,72.5)	63.75 (48.6,83.7)	79.80 (56.4,112.8)
Other Hispanic	6.89 (3.5,13.6)	15.06 (10.4,21.7)	27.81 (20.0,38.7)	46.89 (30.9,71.2)	59.47 (39.2,90.2)	67.60 (46.5,98.3)	79.52 (55.0,115.1)
Non-Hispanic White	6.89 (4.4,10.9)	14.59 (11.4,18.7)	26.22 (21.4,32.1)	41.70 (33.9,51.3)	52.74 (41.7,66.7)	60.42 (46.5,78.5)	78.18 (58.7,104.1)
Non-Hispanic Black	8.89 (5.2,15.3)	17.85 (12.9,24.6)	30.74 (24.2,39.0)	46.59 (38.2,56.9)	58.00 (47.6,70.7)	66.16 (54.0,81.1)	82.63 (64.4,106.1)
Other race	15.15 (7.2,31.9)	28.78 (17.6,47.1)	49.09 (31.3,77.0)	71.11 (51.3,98.5)	89.81 (66.0,122.1)	105.37 (75.2,147.7)	131.76 (89.0,195.1)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

934  
935

936  
937

Table 6b. UFCR Estimates (g/day): Total Fish, Adults, 21 years and older, by geography

Total Fish Adults ≥21 years old	Percentiles(95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	7.27 (4.5,11.7)	15.73 (11.9,20.7)	28.31 (23.1,34.6)	44.83 (37.1,54.2)	56.75 (46.7,69.0)	65.15 (52.8,80.3)	85.30 (67.9,107.2)
<b>Region<sup>1</sup></b>							
Midwest	5.25 (3.2,8.7)	11.33 (8.1,15.8)	20.03 (15.3,26.2)	31.52 (23.5,42.4)	41.40 (31.2,54.9)	46.68 (32.8,66.5)	63.61 (47.1,85.9)
Northeast	9.03 (5.7,14.3)	20.29 (15.1,27.2)	35.94 (27.8,46.5)	54.03 (42.1,69.3)	66.55 (51.8,85.5)	75.85 (58.3,98.8)	94.75 (70.2,128.0)
South	7.92 (4.2,14.8)	16.60 (11.6,23.7)	29.05 (22.9,36.8)	45.64 (36.9,56.5)	58.23 (47.0,72.2)	67.39 (53.9,84.3)	93.86 (69.9,126.1)
West	8.74 (5.7,13.4)	17.66 (13.3,23.5)	30.76 (23.9,39.5)	47.81 (36.8,62.1)	58.34 (46.3,73.5)	65.39 (50.9,84.1)	78.63 (53.8,115.0)
<b>Coastal Status</b>							
Noncoastal	6.67 (3.5,12.6)	14.52 (10.0,21.1)	25.95 (20.0,33.6)	41.75 (31.9,54.7)	52.71 (40.8,68.0)	60.55 (46.8,78.3)	78.78 (59.3,104.6)
Coastal	8.59 (6.3,11.7)	17.73 (14.2,22.2)	31.48 (25.4,39.0)	49.69 (40.5,61.0)	62.13 (49.9,77.4)	71.62 (57.1,89.9)	92.02 (70.1,120.9)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	7.79 (5.3,11.5)	17.15 (12.8,23.0)	30.08 (23.6,38.3)	47.56 (38.5,58.7)	57.07 (43.7,74.4)	64.78 (47.7,88.0)	78.00 (46.7,130.4)
Atlantic	9.80 (6.6,14.6)	19.47 (13.7,27.7)	33.19 (23.0,47.9)	50.48 (35.3,72.2)	63.05 (45.1,88.2)	71.48 (50.4,101.4)	91.63 (65.4,128.5)
Gulf of Mexico	10.20 (5.0,20.8)	21.69 (12.4,37.8)	40.39 (24.3,67.1)	63.32 (40.9,98.1)	82.49 (52.9,128.6)	97.58 (59.7,159.5)	126.36 (78.3,203.9)
Great Lakes	5.71 (3.6,9.1)	12.36 (8.4,18.3)	23.38 (16.8,32.6)	36.31 (24.4,54.0)	47.37 (33.0,68.0)	55.98 (40.1,78.1)	78.34 (59.4,103.3)
Inland Northeast	7.36 (4.0,13.5)	19.85 (12.0,32.8)	35.86 (22.9,56.2)	54.30 (35.6,82.9)	69.02 (43.9,108.6)	78.14 (50.9,119.9)	95.75 (63.1,145.2)
Inland Midwest	5.13 (2.7,9.8)	11.12 (7.2,17.2)	19.30 (14.3,26.1)	29.65 (22.4,39.2)	40.05 (29.7,54.0)	45.24 (33.9,60.3)	59.71 (44.6,79.9)
Inland South	7.02 (2.8,17.5)	15.03 (8.7,26.0)	25.43 (18.8,34.3)	39.37 (30.9,50.2)	49.99 (40.0,62.4)	56.86 (45.8,70.6)	74.52 (57.3,96.9)
Inland West	9.61 (4.7,19.5)	18.22 (11.8,28.1)	32.02 (20.3,50.4)	48.00 (31.8,72.4)	59.09 (40.4,86.4)	65.89 (46.1,94.2)	79.17 (54.4,115.2)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

938  
939  
940  
941  
942  
943  
944

946

Table 7a. UFCR Estimates (g/day): Freshwater + Estuarine Fish, Adults, 21 years and older, by demographic characteristics

Deleted: s

Freshwater+Estuarine Fish Adults ≥21 years old	Percentiles(95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	1.93 (1.1,3.3)	4.93 (3.0,8.0)	10.99 (8.0,15.1)	20.90 (16.6,26.3)	29.74 (23.5,37.6)	36.80 (28.3,47.8)	57.09 (40.1,81.2)
<b>Gender</b>							
Female	1.63 (1.0,2.8)	4.16 (2.5,6.8)	9.15 (6.3,13.2)	17.20 (13.0,22.7)	24.63 (18.8,32.3)	31.06 (23.4,41.3)	46.02 (32.6,65.0)
Male	2.50 (1.5,4.3)	6.13 (3.8,10.0)	13.56 (10.1,18.2)	25.09 (19.9,31.6)	35.13 (27.2,45.3)	43.32 (32.9,57.1)	64.41 (45.9,90.4)
<b>Age</b>							
21 to <35 yrs	1.62 (1.0,2.6)	4.48 (3.2,6.2)	10.30 (8.1,13.2)	20.52 (15.6,26.9)	29.91 (22.3,40.2)	37.39 (27.7,50.5)	63.76 (36.5,111.4)
35 to <50 yrs	1.92 (1.1,3.4)	4.82 (2.8,8.3)	10.88 (7.1,16.6)	20.91 (14.9,29.4)	29.98 (21.4,42.0)	38.00 (26.9,53.8)	56.84 (38.1,84.8)
50 to <65 yrs	2.73 (1.4,5.4)	6.32 (3.7,10.7)	12.85 (8.9,18.4)	23.11 (17.6,30.4)	31.87 (24.1,42.2)	38.28 (28.1,52.1)	57.09 (38.3,85.1)
65+ yrs	1.66 (0.6,4.8)	4.27 (1.9,9.7)	9.42 (5.3,16.6)	17.70 (11.8,26.5)	25.00 (17.7,35.4)	31.28 (23.1,42.4)	45.01 (32.0,63.3)
Women of Childbearing Age <sup>1</sup>	1.09 (0.7,1.7)	3.26 (2.1,5.0)	7.86 (5.5,11.2)	15.79 (11.9,21.0)	23.70 (18.1,31.0)	29.90 (22.2,40.2)	46.38 (32.4,66.4)
<b>Income</b>							
<\$20,000	1.44 (0.8,2.6)	4.34 (2.8,6.7)	10.11 (7.2,14.2)	19.24 (14.2,26.1)	28.33 (21.7,36.9)	34.81 (25.7,47.1)	58.09 (37.4,90.2)
\$20k-\$45k	1.69 (0.9,3.1)	4.34 (2.4,7.8)	9.73 (6.4,14.7)	18.13 (12.6,26.0)	26.82 (20.1,35.8)	33.30 (24.3,45.6)	54.19 (36.8,79.7)
\$45k-\$75k	1.82 (1.1,3.1)	4.71 (3.2,7.0)	10.36 (7.7,14.0)	19.28 (14.8,25.1)	26.33 (19.4,35.8)	33.11 (24.2,45.4)	53.44 (33.7,84.8)
\$75k+	2.42 (1.1,5.2)	5.66 (2.8,11.3)	12.61 (8.4,19.0)	23.62 (17.8,31.4)	34.06 (26.2,44.3)	41.31 (30.9,55.3)	62.84 (42.0,94.1)
>\$20,000	2.26 (1.1,4.5)	5.89 (3.3,10.7)	12.27 (6.9,21.9)	22.36 (11.2,44.8)	29.72 (15.6,56.7)	37.96 (17.3,83.3)	51.37 (25.4,103.9)
Inc Ref/DK	2.42 (1.2,4.8)	6.60 (3.5,12.5)	14.54 (7.1,29.8)	26.10 (12.7,53.5)	33.66 (18.0,63.1)	39.71 (21.8,72.3)	50.89 (28.5,90.9)
Inc missing	3.55 (0.5,26.8)	7.54 (2.3,25.0)	16.14 (5.5,47.5)	29.99 (10.4,86.7)	38.76 (15.0,99.9)	56.84 (16.5,195.4)	66.74 (26.6,167.2)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	2.39 (1.4,4.0)	6.47 (4.1,10.1)	13.40 (8.3,21.6)	24.78 (16.5,37.3)	32.70 (19.4,55.2)	38.63 (20.9,71.4)	53.80 (26.5,109.3)
Other Hispanic	2.34 (1.4,3.9)	5.93 (3.5,10.0)	12.85 (8.0,20.7)	27.60 (17.7,43.1)	41.19 (22.0,77.3)	53.33 (24.3,117.0)	76.96 (32.7,181.1)
Non-Hispanic White	1.67 (0.9,3.1)	4.17 (2.4,7.3)	9.04 (5.8,14.0)	16.99 (12.3,23.4)	23.76 (17.2,32.7)	29.73 (22.0,40.1)	42.53 (30.0,60.2)
Non-Hispanic Black	2.88 (1.6,5.1)	7.04 (4.6,10.9)	14.10 (10.0,19.9)	24.54 (18.3,33.0)	33.01 (23.9,45.7)	40.13 (29.1,55.3)	60.52 (40.2,91.1)
Other race	5.20 (3.0,9.0)	13.23 (7.1,24.8)	25.91 (14.8,45.5)	46.42 (25.8,83.6)	64.67 (34.0,123.0)	78.09 (41.9,145.6)	103.85 (59.7,180.8)

<sup>1</sup>Women 13 to 49 years<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

947

94  
950

Table 7b. UFCR Estimates (g/day): Freshwater + Estuarine Fish, Adults, 21 years and older, by geographic area

Deleted: y

Freshwater + Estuarine Fish Adults ≥21 years old	Percentiles(95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	1.93 (1.1,3.3)	4.93 (3.0,8.0)	10.99 (8.0,15.1)	20.90 (16.6,26.3)	29.74 (23.5,37.6)	36.80 (28.3,47.8)	57.09 (40.1,81.2)
<b>Region<sup>1</sup></b>							
Midwest	1.22 (0.6,2.6)	3.09 (1.5,6.4)	6.57 (3.2,13.3)	12.43 (6.8,22.8)	17.80 (9.9,31.9)	22.74 (13.6,38.0)	39.41 (26.4,58.7)
Northeast	2.48 (1.4,4.3)	6.49 (4.4,9.5)	14.03 (11.0,17.9)	24.64 (19.1,31.7)	32.84 (25.3,42.6)	38.84 (29.6,51.0)	52.54 (37.1,74.4)
South	2.57 (1.6,4.1)	6.36 (4.3,9.4)	13.61 (10.0,18.5)	24.35 (18.1,32.7)	34.28 (25.2,46.5)	42.02 (30.4,58.1)	61.89 (43.6,87.9)
West	2.01 (1.1,3.8)	4.84 (2.7,8.7)	10.39 (6.6,16.4)	20.12 (14.3,28.3)	29.63 (20.3,43.2)	36.98 (24.7,55.4)	60.44 (33.1,110.2)
<b>Coastal Status</b>							
Noncoastal	1.63 (0.9,2.8)	4.24 (2.6,7.0)	9.53 (6.8,13.4)	17.83 (13.4,23.8)	25.64 (19.3,34.1)	31.68 (23.1,43.5)	47.34 (32.0,70.0)
Coastal	2.59 (1.4,4.9)	6.23 (3.6,10.9)	13.67 (9.5,19.6)	25.09 (18.8,33.5)	35.64 (27.0,47.1)	44.97 (33.5,60.3)	67.62 (46.7,97.9)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	2.18 (1.0,4.8)	5.19 (2.5,10.7)	11.30 (6.6,19.2)	21.73 (14.1,33.5)	31.66 (20.5,49.0)	39.32 (25.0,61.9)	61.40 (34.9,107.9)
Atlantic	2.95 (1.2,7.2)	6.66 (3.1,14.3)	13.50 (7.8,23.4)	23.50 (15.7,35.1)	31.21 (21.1,46.1)	37.43 (25.9,54.1)	51.57 (35.0,76.0)
Gulf of Mexico	5.47 (2.3,12.9)	13.29 (7.3,24.4)	24.59 (15.2,39.7)	42.50 (29.3,61.7)	59.13 (42.1,83.1)	67.01 (47.1,95.3)	95.98 (65.5,140.6)
Great Lakes	1.59 (0.7,3.5)	4.07 (2.2,7.5)	8.65 (5.3,14.2)	17.69 (11.9,26.2)	27.18 (16.4,45.1)	38.56 (17.7,83.9)	79.58 (15.8,400.6)
Inland Northeast	1.98 (0.9,4.2)	6.05 (3.7,9.9)	13.62 (8.7,21.4)	25.06 (14.7,42.8)	33.53 (19.9,56.6)	38.93 (24.1,62.8)	54.57 (33.4,89.2)
Inland Midwest	1.14 (0.5,2.4)	2.88 (1.4,5.9)	6.09 (3.0,12.5)	11.15 (5.5,22.8)	15.55 (7.5,32.4)	19.63 (10.0,38.5)	27.89 (13.4,58.2)
Inland South	2.12 (1.4,3.2)	5.42 (3.9,7.5)	11.44 (8.6,15.2)	20.33 (15.1,27.3)	27.77 (20.3,38.0)	33.55 (23.9,47.1)	49.59 (32.7,75.3)
Inland West	1.85 (0.9,3.8)	4.49 (2.4,8.4)	9.41 (5.4,16.4)	17.99 (11.3,28.7)	27.97 (16.8,46.5)	34.96 (19.8,61.7)	57.44 (24.9,132.6)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

951  
952  
953  
954  
955  
956  
957

959  
960

**Table 8a. UFCR Estimates (g/day): Marine Fish, Adults, 21 years and older, by demographics**

<i>Marine Fish</i> Adults ≥21 years old	<i>Percentiles(95% CI)</i>						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	3.93 (2.2,6.9)	9.15 (6.2,13.4)	17.36 (13.4,22.6)	28.32 (22.7,35.4)	36.93 (29.5,46.3)	43.24 (33.8,55.3)	59.03 (45.4,76.7)
<b>Gender</b>							
Female	3.59 (1.9,6.9)	8.44 (5.4,13.2)	15.83 (11.9,21.0)	26.03 (20.4,33.2)	33.80 (26.7,42.7)	39.54 (30.8,50.7)	53.12 (40.8,69.1)
Male	4.43 (2.7,7.2)	10.20 (7.2,14.4)	19.21 (15.0,24.7)	31.36 (24.9,39.5)	40.57 (31.6,52.1)	47.92 (36.9,62.2)	64.05 (47.7,86.0)
<b>Age</b>							
21 to <35 yrs	2.72 (1.2,6.1)	7.26 (3.9,13.5)	14.09 (9.9,20.0)	23.75 (18.4,30.6)	32.01 (25.2,40.6)	37.98 (29.7,48.5)	52.46 (38.2,72.0)
35 to <50 yrs	4.08 (2.7,6.2)	8.98 (6.6,12.3)	16.22 (12.6,20.8)	25.71 (18.8,35.1)	32.97 (22.4,48.6)	38.15 (24.3,59.9)	49.80 (28.9,85.8)
50 to <65 yrs	6.18 (3.1,12.3)	13.10 (7.4,23.2)	23.73 (14.7,38.4)	37.49 (24.2,58.2)	48.33 (30.8,75.9)	56.36 (35.8,88.8)	70.75 (48.8,102.6)
65+ yrs	3.69 (2.3,6.0)	8.43 (5.8,12.2)	16.32 (12.2,21.8)	26.30 (18.6,37.2)	34.06 (23.1,50.3)	39.34 (25.0,61.9)	51.11 (30.3,86.1)
Women of Childbearing Age <sup>1</sup>	2.30 (1.2,4.3)	6.69 (4.0,11.2)	13.24 (10.0,17.6)	21.96 (17.8,27.1)	29.09 (23.4,36.2)	34.16 (26.6,43.9)	44.94 (31.7,63.7)
<b>Income</b>							
<\$20,000	2.38 (1.5,3.9)	6.64 (4.7,9.4)	13.68 (10.4,17.9)	23.47 (18.4,29.9)	31.73 (24.8,40.5)	37.51 (28.5,49.3)	52.93 (38.5,72.8)
\$20k-\$45k	3.28 (1.7,6.3)	7.78 (4.9,12.3)	14.83 (10.9,20.2)	24.76 (19.1,32.2)	33.08 (25.3,43.2)	38.41 (29.3,50.3)	51.69 (38.4,69.6)
\$45k-\$75k	3.87 (2.3,6.4)	8.96 (6.0,13.4)	16.95 (12.4,23.3)	27.66 (20.6,37.2)	36.28 (27.1,48.5)	43.17 (31.7,58.7)	60.72 (44.6,82.7)
\$75k+	5.88 (3.3,10.6)	11.61 (8.5,15.9)	20.82 (16.4,26.4)	32.66 (26.0,41.0)	41.76 (32.7,53.4)	48.14 (37.0,62.6)	61.76 (45.1,84.6)
>\$20,000	3.93 (1.9,8.2)	8.83 (4.9,15.9)	16.61 (10.1,27.3)	27.18 (17.0,43.4)	33.96 (21.2,54.3)	41.21 (25.6,66.2)	59.38 (33.0,106.7)
Income Ref/Don't Know	4.62 (1.2,17.8)	11.39 (4.0,32.7)	21.06 (9.5,46.7)	31.40 (18.9,52.2)	39.90 (26.0,61.2)	43.96 (30.4,63.6)	66.21 (34.0,129.1)
Income missing	3.72 (0.8,18.3)	8.51 (3.4,21.2)	17.84 (7.8,40.5)	29.85 (14.8,60.2)	39.09 (20.1,75.9)	46.58 (24.6,88.1)	60.92 (33.1,112.2)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	2.95 (1.6,5.6)	8.05 (4.3,15.1)	15.34 (9.2,25.5)	24.60 (16.6,36.5)	32.61 (22.0,48.3)	37.82 (26.9,53.2)	51.54 (36.7,72.4)
Other Hispanic	3.35 (1.7,6.5)	7.80 (5.0,12.1)	14.71 (10.5,20.6)	23.59 (16.7,33.3)	31.29 (21.4,45.8)	38.13 (26.3,55.4)	49.20 (28.2,85.9)
Non-Hispanic White	3.89 (2.3,6.6)	8.96 (6.3,12.8)	16.94 (13.2,21.8)	27.72 (21.6,35.6)	36.21 (27.7,47.3)	42.70 (32.2,56.6)	58.28 (43.9,77.3)
Non-Hispanic Black	3.99 (1.9,8.2)	9.10 (5.4,15.3)	17.17 (11.7,25.3)	27.88 (20.3,38.2)	35.39 (27.5,45.5)	40.86 (31.8,52.5)	52.99 (38.7,72.6)
Other race	7.38 (4.2,13.0)	16.13 (9.8,26.7)	27.20 (19.8,37.3)	40.91 (32.3,51.9)	52.09 (39.7,68.3)	62.58 (45.3,86.5)	83.12 (55.7,124.1)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

961

962  
963

**Table 8b. UFCR Estimates (g/day): Marine Fish, Adults, 21 years and older, by geography**

<i>Marine Fish</i> Adults ≥21 years old	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>All Adults</b>	3.93 (2.2,6.9)	9.15 (6.2,13.4)	17.36 (13.4,22.6)	28.32 (22.7,35.4)	36.93 (29.5,46.3)	43.24 (33.8,55.3)	59.03 (45.4,76.7)
<b>Region<sup>1</sup></b>							
Midwest	2.92 (1.4,5.9)	6.80 (4.0,11.5)	13.22 (8.6,20.4)	22.25 (15.2,32.7)	29.10 (20.6,41.1)	33.97 (23.7,48.7)	49.65 (34.1,72.3)
Northeast	5.13 (3.4,7.8)	12.20 (9.2,16.2)	22.32 (17.4,28.6)	35.79 (27.7,46.2)	44.96 (34.0,59.5)	52.36 (39.4,69.6)	70.86 (53.2,94.5)
South	3.78 (2.1,6.8)	8.60 (5.7,12.9)	16.07 (12.1,21.3)	26.22 (20.6,33.4)	34.13 (26.5,43.9)	39.92 (29.9,53.3)	54.34 (38.9,75.9)
West	5.35 (2.9,9.8)	11.28 (7.5,17.0)	19.94 (15.0,26.6)	32.08 (24.2,42.4)	40.59 (31.2,52.8)	47.22 (36.3,61.4)	60.20 (45.0,80.6)
<b>Coastal Status</b>							
Noncoastal	3.72 (1.8,7.9)	8.66 (5.1,14.7)	16.51 (11.2,24.4)	27.30 (19.7,37.8)	35.98 (26.3,49.2)	42.54 (31.1,58.2)	58.94 (41.4,84.0)
Coastal	4.30 (3.0,6.2)	9.98 (7.5,13.3)	18.64 (14.2,24.5)	29.85 (21.8,40.9)	38.38 (27.0,54.6)	44.17 (29.2,66.7)	59.25 (39.9,88.0)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	4.84 (3.1,7.6)	10.68 (7.7,14.8)	19.09 (14.3,25.5)	30.89 (23.6,40.4)	39.14 (29.2,52.5)	43.79 (29.3,65.4)	54.14 (30.4,96.3)
Atlantic	5.29 (3.2,8.7)	11.16 (7.1,17.4)	20.25 (13.2,31.1)	30.95 (18.7,51.2)	39.70 (24.0,65.5)	45.57 (26.6,78.1)	60.79 (36.5,101.3)
Gulf of Mexico	3.32 (1.7,6.3)	8.16 (4.1,16.3)	16.51 (9.1,30.0)	27.87 (17.4,44.5)	37.47 (23.0,61.0)	44.21 (27.6,70.9)	60.92 (33.1,112.0)
Great Lakes	2.61 (1.3,5.1)	6.73 (3.9,11.7)	13.43 (7.6,23.7)	24.52 (16.1,37.3)	32.64 (20.6,51.8)	39.20 (25.1,61.2)	62.01 (41.3,93.2)
Inland Northeast	4.44 (2.5,8.0)	12.31 (7.5,20.3)	22.83 (15.3,34.0)	37.42 (24.8,56.4)	48.31 (31.8,73.4)	56.54 (36.9,86.5)	76.33 (46.9,124.2)
Inland Midwest	2.98 (1.2,7.5)	6.81 (3.3,13.9)	13.14 (6.8,25.6)	21.41 (12.0,38.2)	27.96 (16.4,47.7)	33.06 (19.6,55.8)	46.18 (26.1,81.8)
Inland South	3.49 (1.5,8.1)	8.01 (4.4,14.5)	14.65 (9.7,22.1)	23.34 (17.3,31.4)	31.14 (22.8,42.4)	36.74 (27.2,49.5)	49.10 (34.8,69.2)
Inland West	5.86 (2.4,14.3)	11.76 (6.3,21.8)	20.64 (12.4,34.2)	33.58 (19.6,57.5)	42.99 (25.2,73.4)	51.78 (28.2,95.2)	64.07 (39.7,103.3)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

964

Table 9a. UFCR Estimates (g/day): Total Finfish, Adults, 21 years and older, by demographics

<i>Finfish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	4.33 (2.8,6.8)	9.69 (7.2,13.0)	18.01 (14.1,23.0)	29.82 (23.6,37.7)	39.25 (30.8,50.0)	46.36 (36.2,59.4)	62.16 (47.9,80.7)
<b>Gender</b>							
Female	3.89 (2.4,6.4)	8.71 (6.5,11.7)	16.36 (12.7,21.1)	26.82 (20.8,34.5)	34.68 (26.6,45.2)	40.98 (31.3,53.6)	55.53 (42.2,73.1)
Male	5.10 (3.3,7.9)	11.11 (8.2,15.0)	20.04 (15.5,25.9)	33.90 (26.8,42.9)	44.68 (35.2,56.7)	51.56 (39.9,66.6)	70.67 (55.5,90.1)
<b>Age</b>							
21 to <35 yrs	3.13 (1.2,7.9)	7.80 (4.5,13.4)	15.74 (10.5,23.6)	27.51 (19.6,38.7)	36.73 (27.6,49.0)	45.27 (33.5,61.1)	61.69 (46.4,82.1)
35 to <50 yrs	4.21 (3.0,5.8)	9.04 (7.0,11.7)	16.22 (12.1,21.8)	26.57 (19.6,35.9)	35.48 (26.6,47.3)	41.97 (31.2,56.4)	55.74 (40.8,76.2)
50 to <65 yrs	7.16 (3.8,13.5)	13.66 (9.1,20.5)	23.96 (16.9,34.0)	37.45 (27.0,52.0)	47.14 (34.5,64.4)	54.81 (39.8,75.5)	70.19 (51.2,96.2)
65+ yrs	4.42 (2.9,6.6)	9.23 (6.1,13.9)	16.68 (10.8,25.7)	26.94 (17.2,42.2)	34.85 (21.6,56.1)	41.21 (25.8,65.9)	54.23 (31.7,92.6)
Women of Childbearing Age <sup>1</sup>	2.30 (1.3,3.9)	6.62 (4.7,9.3)	13.39 (10.4,17.3)	23.05 (18.0,29.4)	30.80 (24.0,39.6)	37.14 (28.7,48.1)	50.93 (38.7,67.1)
<b>Income</b>							
<\$20,000	2.80 (1.7,4.7)	7.54 (5.6,10.1)	15.15 (11.9,19.3)	26.02 (20.4,33.3)	35.23 (27.4,45.3)	42.94 (33.1,55.7)	59.92 (44.6,80.4)
\$20k-\$45k	3.80 (2.5,5.9)	8.57 (6.4,11.4)	15.89 (11.8,21.4)	26.49 (19.5,35.9)	35.55 (26.3,48.0)	42.79 (31.7,57.8)	58.28 (42.2,80.5)
\$45k-\$75k	4.21 (2.7,6.6)	9.39 (6.7,13.2)	17.63 (13.0,23.9)	29.83 (22.3,39.9)	39.51 (29.2,53.4)	46.49 (34.4,62.9)	61.54 (44.7,84.8)
\$75k+	5.90 (3.7,9.3)	11.70 (8.7,15.7)	20.69 (16.1,26.6)	33.09 (25.9,42.3)	42.90 (33.5,54.9)	49.34 (38.0,64.0)	64.88 (49.1,85.8)
>\$20,000	5.17 (2.4,10.9)	11.17 (5.9,21.2)	18.67 (11.9,29.3)	31.63 (19.4,51.4)	41.56 (25.4,68.1)	47.52 (29.7,76.0)	64.77 (39.0,107.6)
Inc Ref/DK	4.24 (1.2,14.6)	10.05 (4.6,22.1)	18.27 (10.3,32.5)	30.90 (17.7,53.8)	39.51 (23.3,66.9)	45.66 (28.1,74.3)	52.65 (33.0,83.9)
Inc missing	4.42 (0.8,25.9)	11.38 (3.0,43.8)	19.41 (7.6,49.3)	40.63 (12.9,127.5)	62.28 (15.1,256.3)	71.34 (19.6,259.9)	79.19 (33.8,185.7)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	3.72 (1.6,8.5)	9.22 (5.5,15.3)	17.31 (11.8,25.5)	28.40 (20.4,39.6)	37.92 (27.4,52.5)	44.51 (32.4,61.2)	58.73 (41.6,82.9)
Other Hispanic	3.67 (1.9,7.0)	8.02 (5.2,12.3)	15.96 (11.1,23.0)	28.46 (19.0,42.7)	39.06 (24.8,61.5)	48.60 (27.9,84.6)	68.53 (35.5,132.3)
Non-Hispanic White	4.16 (2.7,6.5)	9.05 (6.8,12.0)	16.50 (12.6,21.6)	27.08 (20.7,35.5)	35.37 (26.7,46.8)	42.21 (32.0,55.8)	55.55 (40.7,75.8)
Non-Hispanic Black	5.53 (3.1,9.9)	11.77 (8.4,16.5)	21.04 (16.2,27.3)	32.72 (24.7,43.3)	42.43 (32.2,55.9)	49.08 (36.5,66.0)	63.98 (45.5,89.9)
Other race	9.28 (5.1,16.8)	19.45 (12.2,30.9)	33.79 (24.1,47.4)	51.47 (39.6,66.9)	64.68 (49.3,84.8)	76.63 (57.7,101.8)	101.62 (72.5,142.4)

<sup>1</sup>Women 13 to 49 years<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

967  
968

Table 9b. UFCR Estimates (g/day): Total Finfish, Adults, 21 years and older, by geography

Finfish Adults ≥21 years old	Percentiles(95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	4.33 (2.8,6.8)	9.69 (7.2,13.0)	18.01 (14.1,23.0)	29.82 (23.6,37.7)	39.25 (30.8,50.0)	46.36 (36.2,59.4)	62.16 (47.9,80.7)
<b>Region<sup>1</sup></b>							
Midwest	3.46 (1.9,6.4)	7.53 (5.0,11.2)	13.90 (10.0,19.4)	22.52 (15.9,31.8)	29.42 (20.3,42.6)	34.34 (22.8,51.7)	45.94 (29.2,72.3)
Northeast	4.68 (2.8,7.8)	10.83 (7.7,15.2)	20.15 (14.9,27.2)	32.43 (24.0,43.7)	42.51 (32.0,56.4)	49.43 (36.7,66.5)	61.50 (42.6,88.7)
South	4.43 (2.9,6.9)	9.82 (7.4,13.0)	18.34 (14.6,23.1)	30.77 (24.5,38.6)	41.57 (32.9,52.5)	49.09 (38.6,62.4)	68.72 (52.4,90.1)
West	5.50 (3.5,8.7)	11.42 (8.3,15.7)	20.56 (15.2,27.7)	33.37 (24.9,44.7)	43.13 (32.0,58.1)	49.58 (36.7,67.0)	63.78 (46.0,88.5)
<b>Coastal Status</b>							
Noncoastal	4.25 (2.2,8.4)	9.41 (6.2,14.2)	17.22 (12.6,23.6)	28.30 (20.8,38.5)	37.18 (27.2,50.8)	44.49 (31.9,62.1)	59.59 (42.2,84.0)
Coastal	4.46 (2.9,6.8)	10.11 (7.1,14.4)	19.35 (14.1,26.6)	32.10 (23.5,43.9)	42.40 (31.3,57.4)	49.31 (34.7,70.2)	64.60 (41.5,100.7)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	4.81 (3.1,7.4)	10.46 (7.0,15.5)	19.46 (13.5,28.1)	31.64 (22.0,45.5)	41.98 (29.8,59.1)	47.91 (32.0,71.7)	61.39 (37.3,101.0)
Atlantic	4.92 (2.5,9.8)	10.63 (5.9,19.1)	19.71 (11.5,33.8)	32.33 (20.2,51.6)	41.52 (26.0,66.2)	48.72 (30.7,77.2)	62.38 (37.4,104.2)
Gulf of Mexico	4.15 (2.3,7.5)	10.35 (5.6,19.2)	21.27 (12.8,35.3)	39.99 (22.2,72.0)	51.16 (29.5,88.6)	62.44 (36.5,106.7)	87.20 (53.2,142.8)
Great Lakes	3.28 (1.7,6.2)	7.81 (4.7,13.0)	16.14 (11.0,23.6)	26.25 (17.0,40.5)	33.30 (19.7,56.4)	38.84 (22.1,68.2)	50.24 (24.6,102.6)
Inland Northeast	4.16 (1.9,9.3)	10.49 (6.0,18.2)	19.59 (12.3,31.3)	31.54 (20.1,49.6)	42.49 (25.6,70.6)	49.34 (30.1,80.8)	64.36 (39.1,105.9)
Inland Midwest	3.51 (1.6,7.8)	7.46 (4.4,12.5)	13.37 (9.1,19.7)	21.42 (15.1,30.4)	27.66 (19.5,39.3)	32.61 (22.7,46.9)	44.71 (31.2,64.1)
Inland South	4.36 (2.1,9.2)	9.65 (6.3,14.8)	17.43 (13.2,23.0)	28.90 (22.0,37.9)	38.14 (29.2,49.9)	45.41 (34.1,60.5)	62.91 (43.9,90.0)
Inland West	6.37 (2.7,14.8)	12.46 (7.0,22.0)	21.80 (12.8,37.1)	35.00 (19.9,61.5)	45.08 (26.0,78.3)	51.03 (31.2,83.6)	66.40 (40.9,107.8)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

969

Table 10a. UFCR Estimates (g/day): Total Shellfish, Adults, 21 years and older, by demographics

Shellfish Adults ≥21 years old	Percentiles(95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	1.03 (0.5,2.2)	3.01 (1.7,5.4)	7.56 (4.6,12.5)	15.99 (10.6,24.2)	24.18 (16.9,34.5)	30.09 (20.8,43.5)	45.50 (31.9,64.9)
<b>Gender</b>							
Female	0.87 (0.4,1.8)	2.54 (1.4,4.5)	6.29 (3.8,10.3)	13.21 (8.8,19.8)	19.65 (13.7,28.2)	24.33 (16.8,35.3)	36.72 (25.6,52.7)
Male	1.36 (0.7,2.8)	3.77 (2.0,7.2)	9.34 (5.5,16.0)	19.96 (13.3,29.9)	29.28 (20.3,42.3)	37.02 (26.2,52.3)	52.89 (36.0,77.7)
<b>Age</b>							
21 to <35 yrs	0.91 (0.5,1.6)	2.79 (1.8,4.4)	7.07 (4.9,10.3)	15.25 (10.9,21.3)	23.19 (16.4,32.9)	29.32 (20.8,41.4)	45.67 (31.2,66.8)
35 to <50 yrs	1.22 (0.6,2.5)	3.42 (1.9,6.0)	8.29 (4.9,13.9)	17.39 (10.9,27.8)	26.33 (16.6,41.9)	33.10 (20.2,54.1)	49.86 (29.3,84.8)
50 to <65 yrs	1.39 (0.5,3.7)	3.70 (1.7,8.3)	8.81 (4.6,16.8)	17.69 (10.5,29.9)	25.40 (15.8,40.8)	30.66 (18.9,49.8)	44.79 (30.0,66.9)
65+ yrs	0.65 (0.2,1.9)	1.92 (0.8,4.7)	5.03 (2.1,11.8)	11.56 (5.8,23.1)	18.25 (10.4,32.0)	23.74 (14.2,39.7)	37.46 (25.3,55.4)
Women of Childbearing Age <sup>1</sup>	0.69 (0.4,1.3)	2.24 (1.4,3.7)	5.85 (3.8,8.9)	12.53 (8.6,18.4)	18.66 (12.8,27.1)	24.02 (16.8,34.4)	37.23 (25.2,55.0)
<b>Income</b>							
<\$20,000	0.65 (0.3,1.6)	2.05 (1.0,4.1)	5.52 (3.2,9.6)	12.05 (7.6,19.1)	18.57 (12.1,28.4)	23.88 (15.7,36.2)	39.56 (26.9,58.2)
\$20k-\$45k	0.88 (0.5,1.6)	2.50 (1.5,4.1)	6.28 (4.2,9.5)	13.81 (9.1,21.0)	20.43 (13.7,30.6)	25.21 (17.8,35.7)	38.84 (27.4,55.1)
\$45k-\$75k	1.01 (0.4,2.6)	2.93 (1.4,6.0)	7.38 (4.1,13.2)	15.80 (9.8,25.5)	23.53 (14.9,37.1)	29.00 (18.1,46.5)	43.18 (27.6,67.6)
\$75k+	1.54 (0.6,3.8)	4.08 (1.9,8.9)	9.44 (4.5,20.0)	19.69 (11.6,33.4)	28.64 (18.0,45.5)	35.29 (22.1,56.2)	50.60 (31.8,80.5)
>\$20,000	1.03 (0.4,2.8)	2.87 (1.2,6.8)	6.98 (3.4,14.4)	13.18 (6.2,28.2)	20.43 (10.1,41.1)	24.30 (11.7,50.3)	37.71 (18.8,75.6)
Inc Ref/DK	1.73 (0.9,3.4)	5.13 (2.7,9.6)	12.28 (6.9,22.0)	26.56 (12.8,55.0)	39.43 (16.8,92.7)	55.89 (16.4,191.0)	68.50 (29.3,160.0)
Inc missing	1.03 (0.3,3.8)	2.90 (0.9,9.6)	7.13 (2.3,22.1)	17.46 (6.4,47.9)	22.57 (9.7,52.7)	24.73 (10.4,58.9)	37.44 (18.0,77.8)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	1.34 (0.7,2.6)	3.54 (1.9,6.6)	9.04 (5.7,14.4)	18.09 (11.6,28.2)	25.25 (15.3,41.8)	31.69 (19.0,52.9)	46.21 (24.4,87.7)
Other Hispanic	1.21 (0.6,2.4)	3.87 (2.1,7.0)	9.72 (5.4,17.4)	21.39 (11.5,39.8)	31.76 (17.2,58.5)	38.12 (20.4,71.1)	59.42 (31.9,110.8)
Non-Hispanic White	0.95 (0.4,2.3)	2.75 (1.3,5.7)	6.96 (3.7,13.2)	14.74 (8.4,25.7)	22.25 (13.7,36.1)	28.42 (18.1,44.6)	41.99 (26.7,65.9)
Non-Hispanic Black	1.02 (0.5,2.0)	2.83 (1.7,4.7)	6.61 (4.4,9.8)	13.07 (9.2,18.6)	18.57 (13.0,26.5)	22.97 (16.0,32.9)	34.03 (22.9,50.6)
Other race	2.20 (1.1,4.4)	6.86 (2.9,16.3)	15.49 (7.5,32.1)	29.57 (14.9,58.7)	41.83 (21.9,79.9)	49.50 (28.0,87.5)	76.70 (36.5,161.0)

<sup>1</sup>Women 13 to 49 years<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

972  
973

Table 10b. UFCR Estimates (g/day): Total Shellfish, Adults, 21 years and older, by geography

Shellfish Adults ≥21 years old	Percentiles(95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	1.03 (0.5,2.2)	3.01 (1.7,5.4)	7.56 (4.6,12.5)	15.99 (10.6,24.2)	24.18 (16.9,34.5)	30.09 (20.8,43.5)	45.50 (31.9,64.9)
<b>Region<sup>1</sup></b>							
Midwest	0.57 (0.2,1.4)	1.52 (0.6,3.8)	3.66 (1.6,8.5)	7.49 (3.4,16.4)	11.35 (5.5,23.3)	14.04 (6.3,31.4)	25.98 (15.7,43.1)
Northeast	1.82 (0.7,4.9)	5.45 (2.7,11.2)	12.83 (7.2,22.9)	25.65 (16.8,39.1)	36.22 (24.0,54.6)	44.19 (28.8,67.9)	63.65 (40.2,100.8)
South	1.33 (0.7,2.5)	3.60 (2.1,6.1)	8.52 (5.3,13.6)	17.16 (10.8,27.3)	24.78 (15.9,38.6)	30.72 (20.3,46.6)	45.31 (31.0,66.3)
West	1.23 (0.5,3.0)	3.41 (1.6,7.1)	7.95 (4.2,15.1)	16.30 (9.9,26.9)	23.45 (14.7,37.4)	28.40 (17.5,46.2)	42.01 (26.4,66.8)
<b>Coastal Status</b>							
Noncoastal	0.83 (0.4,1.8)	2.37 (1.2,4.7)	5.98 (3.3,10.9)	12.94 (7.7,21.7)	20.22 (12.9,31.8)	26.12 (16.5,41.4)	41.57 (26.3,65.7)
Coastal	1.58 (0.8,3.3)	4.43 (2.4,8.1)	10.22 (6.0,17.5)	20.19 (12.8,31.8)	28.47 (18.7,43.3)	34.86 (23.2,52.3)	49.89 (34.5,72.2)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	1.48 (0.6,3.4)	3.96 (1.9,8.3)	9.08 (4.7,17.6)	17.25 (9.3,32.2)	24.42 (13.5,44.0)	29.20 (16.1,52.9)	40.71 (21.5,77.0)
Atlantic	1.95 (0.7,5.1)	5.13 (2.3,11.6)	11.11 (5.2,23.7)	20.78 (10.7,40.2)	28.22 (14.8,53.7)	33.96 (18.0,63.9)	48.79 (29.0,82.2)
Gulf of Mexico	3.21 (1.1,9.1)	7.88 (3.3,18.9)	17.27 (8.0,37.1)	29.60 (16.1,54.5)	41.15 (22.9,74.0)	49.27 (29.2,83.1)	73.41 (40.7,132.5)
Great Lakes	0.69 (0.2,2.6)	1.94 (0.6,5.9)	4.85 (2.1,10.9)	10.10 (5.1,20.1)	15.90 (8.9,28.5)	25.98 (14.0,48.4)	44.34 (20.0,98.2)
Inland Northeast	1.66 (0.5,5.1)	5.45 (2.6,11.5)	13.83 (8.0,24.0)	28.96 (17.3,48.6)	39.50 (23.7,65.9)	49.86 (29.3,84.8)	78.07 (38.7,157.4)
Inland Midwest	0.54 (0.2,1.2)	1.45 (0.6,3.3)	3.42 (1.5,7.7)	7.03 (3.3,14.9)	10.18 (4.7,22.1)	12.79 (5.8,28.1)	20.01 (9.5,42.3)
Inland South	0.98 (0.5,1.9)	2.63 (1.5,4.5)	5.93 (3.9,9.1)	11.75 (7.5,18.4)	16.33 (11.1,24.1)	20.87 (13.5,32.3)	31.29 (19.6,49.9)
Inland West	1.02 (0.3,3.5)	2.75 (0.9,8.4)	6.93 (3.1,15.8)	14.83 (7.9,27.7)	22.16 (12.9,38.0)	26.55 (14.6,48.4)	42.31 (25.8,69.3)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

974

975  
976

**Table 11a. UFCR Estimates (g/day): Total Trophic Level 2 Fish, Adults, 21 years and older, by demographics**

<b>Trophic Level 2 Fish</b>	<b>Percentiles(95% CI)</b>						
	<b>25<sup>th</sup></b>	<b>50<sup>th</sup></b>	<b>75<sup>th</sup></b>	<b>90<sup>th</sup></b>	<b>95<sup>th</sup></b>	<b>97<sup>th</sup></b>	<b>99<sup>th</sup></b>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.87 (0.5,1.4)	2.40 (1.6,3.6)	5.69 (4.0,8.0)	11.56 (8.3,16.2)	16.51 (11.1,24.5)	20.87 (13.8,31.6)	31.79 (20.1,50.4)
<b>Gender</b>							
Female	0.74 (0.4,1.3)	2.07 (1.3,3.2)	4.84 (3.4,6.9)	9.64 (6.9,13.4)	13.95 (9.9,19.6)	17.21 (11.8,25.1)	25.63 (16.2,40.5)
Male	1.07 (0.6,1.8)	2.95 (1.9,4.5)	6.96 (4.7,10.3)	13.81 (9.2,20.7)	19.84 (12.7,30.9)	24.76 (15.5,39.5)	36.83 (21.9,61.9)
<b>Age</b>							
21 to <35 yrs	0.74 (0.4,1.5)	2.11 (1.3,3.5)	5.06 (3.5,7.3)	10.29 (7.3,14.5)	14.36 (10.0,20.7)	17.93 (11.9,27.1)	27.79 (17.8,43.4)
35 to <50 yrs	0.99 (0.5,1.9)	2.65 (1.6,4.4)	6.11 (4.0,9.2)	12.58 (7.9,20.0)	18.43 (10.8,31.6)	23.72 (13.6,41.5)	40.70 (24.5,67.7)
50 to <65 yrs	1.18 (0.7,2.1)	2.95 (1.8,4.9)	6.49 (4.1,10.3)	12.15 (7.7,19.3)	16.60 (9.7,28.4)	20.51 (11.9,35.4)	28.99 (15.4,54.7)
65+ yrs	0.58 (0.2,1.3)	1.72 (0.9,3.3)	4.76 (3.0,7.4)	10.73 (7.5,15.3)	16.36 (11.4,23.5)	20.25 (13.9,29.6)	28.91 (19.0,43.9)
Women of Childbearing Age <sup>1</sup>	0.56 (0.3,1.2)	1.69 (1.0,2.9)	4.28 (2.9,6.4)	8.87 (6.3,12.4)	13.18 (9.3,18.7)	16.53 (11.2,24.5)	25.53 (15.9,41.1)
<b>Income</b>							
<\$20,000	0.58 (0.3,1.1)	1.75 (1.1,2.9)	4.21 (2.6,6.9)	8.89 (5.7,14.0)	13.35 (8.3,21.4)	16.96 (10.1,28.5)	28.02 (18.4,42.6)
\$20k-\$45k	0.79 (0.4,1.4)	2.22 (1.3,3.7)	5.32 (3.6,7.9)	10.95 (7.7,15.6)	15.94 (11.4,22.3)	20.52 (14.6,28.9)	30.26 (20.5,44.7)
\$45k-\$75k	0.86 (0.5,1.6)	2.42 (1.4,4.1)	5.73 (3.6,9.1)	11.21 (7.3,17.3)	16.05 (10.2,25.4)	19.88 (12.2,32.5)	30.88 (18.7,51.0)
\$75k+	1.10 (0.6,1.9)	2.82 (1.7,4.6)	6.53 (4.0,10.6)	12.94 (8.0,21.0)	18.22 (10.3,32.3)	22.88 (12.6,41.5)	35.24 (20.1,61.8)
>\$20,000	0.93 (0.4,2.1)	2.58 (1.3,5.3)	5.59 (2.8,11.0)	11.34 (5.7,22.7)	17.15 (8.5,34.7)	21.99 (10.1,48.0)	31.47 (14.9,66.6)
Inc Ref/DK	1.34 (0.5,3.7)	3.83 (1.5,9.8)	8.74 (4.0,19.1)	15.37 (8.5,27.9)	20.83 (11.6,37.5)	22.15 (9.9,49.4)	28.50 (9.4,86.6)
Inc missing	0.75 (0.1,7.3)	2.32 (0.3,16.6)	5.42 (1.1,27.5)	8.57 (2.8,25.8)	14.07 (3.9,50.7)	17.52 (5.1,60.3)	31.15 (6.4,151.5)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	1.32 (0.7,2.4)	3.53 (2.2,5.6)	7.78 (5.1,11.9)	15.01 (9.6,23.5)	21.32 (12.9,35.3)	26.65 (15.6,45.4)	40.14 (22.3,72.2)
Other Hispanic	1.04 (0.5,2.4)	3.16 (1.7,5.7)	7.78 (4.7,12.9)	17.45 (9.8,31.0)	25.76 (14.5,45.8)	33.70 (18.7,60.8)	47.87 (26.0,88.2)
Non-Hispanic White	0.77 (0.5,1.3)	2.10 (1.4,3.2)	4.96 (3.3,7.5)	10.20 (6.7,15.4)	14.87 (9.5,23.3)	18.19 (10.6,31.2)	26.70 (13.9,51.4)
Non-Hispanic Black	1.01 (0.6,1.7)	2.70 (1.8,4.1)	6.07 (4.3,8.5)	10.94 (7.6,15.7)	14.75 (9.2,23.7)	18.20 (11.2,29.5)	26.03 (14.8,45.7)
Other race	1.59 (0.6,4.2)	4.21 (1.8,9.7)	9.68 (4.5,20.6)	17.95 (10.2,31.5)	27.23 (14.8,50.0)	36.64 (18.2,73.7)	57.07 (26.7,122.0)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

977  
978

**Table 11b. UFCR Estimates (g/day): Total Trophic Level 2 Fish, Adults, 21 years and older, by geography**

<b>Trophic Level 2 Fish</b>	<b>Percentiles(95% CI)</b>						
	<b>25<sup>th</sup></b>	<b>50<sup>th</sup></b>	<b>75<sup>th</sup></b>	<b>90<sup>th</sup></b>	<b>95<sup>th</sup></b>	<b>97<sup>th</sup></b>	<b>99<sup>th</sup></b>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.87 (0.5,1.4)	2.40 (1.6,3.6)	5.69 (4.0,8.0)	11.56 (8.3,16.2)	16.51 (11.1,24.5)	20.87 (13.8,31.6)	31.79 (20.1,50.4)
<b>Region<sup>1</sup></b>							
Midwest	0.46 (0.2,0.9)	1.18 (0.6,2.2)	2.67 (1.4,5.2)	5.24 (2.5,11.1)	7.69 (3.5,17.1)	9.80 (4.3,22.3)	16.74 (8.2,34.1)
Northeast	1.55 (0.9,2.7)	4.00 (2.6,6.1)	9.29 (6.4,13.5)	16.85 (10.8,26.3)	23.80 (14.4,39.3)	30.18 (18.3,49.8)	45.42 (26.1,79.1)
South	1.24 (0.5,2.9)	3.11 (1.7,5.7)	6.66 (4.4,10.1)	12.32 (8.4,18.0)	17.42 (11.7,25.9)	21.29 (13.7,33.1)	30.46 (17.6,52.9)
West	0.92 (0.5,1.6)	2.52 (1.5,4.1)	5.98 (3.9,9.3)	11.63 (7.6,17.9)	16.00 (10.1,25.3)	20.16 (12.8,31.9)	29.52 (18.4,47.5)
<b>Coastal Status</b>							
Noncoastal	0.71 (0.4,1.2)	1.94 (1.3,2.9)	4.60 (3.1,6.8)	9.75 (6.7,14.3)	14.62 (9.4,22.7)	18.88 (11.9,30.0)	30.44 (18.3,50.5)
Coastal	1.28 (0.7,2.4)	3.32 (2.0,5.5)	7.42 (4.8,11.5)	13.66 (8.8,21.2)	18.65 (11.2,31.0)	23.08 (13.8,38.5)	33.89 (20.4,56.3)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	1.34 (0.6,3.2)	3.27 (1.7,6.4)	7.20 (4.1,12.6)	12.73 (8.0,20.2)	17.05 (10.5,27.7)	20.42 (12.1,34.4)	29.10 (16.4,51.8)
Atlantic	1.49 (0.7,3.1)	3.55 (1.7,7.2)	7.31 (3.3,16.0)	13.19 (5.8,30.0)	17.58 (7.0,44.3)	21.29 (8.2,55.3)	28.51 (9.6,84.6)
Gulf of Mexico	2.72 (0.8,9.1)	6.37 (2.5,16.2)	12.19 (6.5,22.8)	20.53 (12.9,32.6)	27.79 (18.0,42.9)	35.13 (22.5,55.0)	53.49 (31.8,89.9)
Great Lakes	0.51 (0.2,1.5)	1.35 (0.5,3.7)	3.39 (1.6,7.3)	6.92 (3.3,14.5)	11.08 (5.9,20.7)	15.76 (8.6,28.7)	40.29 (8.8,184.6)
Inland Northeast	1.46 (0.8,2.8)	4.22 (2.3,7.8)	10.42 (5.3,20.6)	19.99 (10.4,38.6)	28.50 (14.8,54.8)	36.43 (18.1,73.5)	51.65 (25.8,103.5)
Inland Midwest	0.45 (0.2,0.8)	1.14 (0.6,2.1)	2.56 (1.3,4.9)	4.83 (2.3,10.1)	6.97 (3.1,15.6)	8.58 (3.6,20.4)	13.55 (5.7,32.2)
Inland South	1.00 (0.4,2.6)	2.52 (1.2,5.2)	5.25 (3.3,8.3)	9.71 (6.8,13.9)	13.75 (9.6,19.7)	17.00 (11.7,24.6)	24.23 (15.4,38.1)
Inland West	0.70 (0.4,1.4)	1.83 (1.0,3.4)	4.42 (2.5,7.7)	10.14 (6.2,16.6)	14.59 (8.5,25.1)	18.88 (10.9,32.7)	29.52 (17.6,49.5)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

979

980  
981

**Table 12a. UFCR Estimates (g/day): Total Trophic Level 3 Fish, Adults, 21 years and older, by demographics**

<i>Trophic Level 3 Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	2.21 (1.3,3.8)	5.02 (3.5,7.2)	9.82 (7.5,12.9)	17.02 (13.1,22.0)	22.69 (17.4,29.6)	26.67 (20.1,35.3)	37.12 (27.0,51.1)
<b>Gender</b>							
Female	1.89 (1.1,3.4)	4.29 (2.9,6.3)	8.26 (6.2,11.0)	14.27 (10.9,18.7)	19.65 (14.9,25.9)	23.04 (17.3,30.7)	30.29 (21.1,43.5)
Male	2.79 (1.6,4.7)	6.16 (4.3,8.9)	11.84 (8.9,15.7)	19.58 (15.0,25.5)	26.16 (20.0,34.3)	31.43 (23.6,41.9)	43.53 (31.2,60.8)
<b>Age</b>							
21 to <35 yrs	1.83 (0.8,4.2)	4.43 (2.5,7.9)	9.11 (5.9,14.1)	16.46 (11.3,24.0)	23.04 (16.0,33.3)	27.79 (20.0,38.6)	39.30 (27.5,56.1)
35 to <50 yrs	2.12 (1.4,3.3)	4.78 (3.4,6.8)	8.99 (6.0,13.4)	15.83 (11.1,22.7)	20.81 (13.8,31.4)	25.07 (16.8,37.5)	34.07 (22.2,52.2)
50 to <65 yrs	3.37 (1.8,6.2)	7.01 (4.3,11.3)	12.62 (8.6,18.4)	20.10 (14.1,28.6)	25.43 (18.4,35.2)	29.52 (21.2,41.2)	39.79 (26.6,59.5)
65+ yrs	1.94 (1.1,3.4)	4.27 (2.8,6.4)	8.35 (6.0,11.7)	14.07 (9.5,20.8)	18.81 (12.1,29.2)	23.03 (15.3,34.7)	31.34 (19.5,50.3)
Women of Childbearing Age <sup>1</sup>	1.19 (0.7,2.0)	3.36 (2.3,5.0)	6.95 (5.2,9.3)	12.62 (9.6,16.6)	17.94 (13.7,23.5)	21.72 (16.5,28.7)	29.33 (20.7,41.5)
<b>Income</b>							
<\$20,000	1.69 (1.1,2.7)	4.37 (3.1,6.2)	9.28 (7.0,12.4)	16.75 (12.7,22.1)	22.84 (17.0,30.7)	26.79 (18.8,38.2)	36.93 (23.5,58.1)
\$20k-\$45k	1.89 (1.0,3.5)	4.39 (2.8,6.8)	8.59 (6.3,11.8)	14.88 (11.2,19.8)	19.71 (14.6,26.5)	23.39 (17.0,32.2)	34.42 (24.0,49.4)
\$45k-\$75k	2.24 (1.2,4.2)	5.15 (3.1,8.4)	10.25 (6.9,15.2)	17.45 (12.7,24.0)	23.10 (17.1,31.2)	27.18 (20.2,36.5)	37.20 (26.6,52.0)
\$75k+	2.70 (1.7,4.2)	5.62 (4.0,7.8)	10.49 (7.7,14.4)	17.85 (13.3,24.0)	23.51 (17.3,31.9)	27.40 (19.5,38.4)	38.12 (26.7,54.4)
>\$20,000	2.72 (0.9,8.1)	5.58 (2.5,12.6)	10.12 (5.5,18.6)	16.06 (9.4,27.4)	20.92 (12.4,35.4)	25.37 (14.5,44.5)	33.62 (18.1,62.4)
Inc Ref/DK	2.72 (0.8,9.4)	6.68 (2.5,17.7)	13.40 (5.8,30.8)	22.93 (10.3,50.9)	27.60 (15.3,49.9)	30.12 (18.1,50.2)	36.66 (21.2,63.5)
Inc missing	2.89 (0.5,15.2)	6.52 (1.8,23.3)	11.76 (4.6,29.8)	22.02 (8.8,55.1)	29.34 (12.5,69.1)	41.68 (12.1,143.3)	69.77 (12.5,389.9)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	2.28 (1.3,4.1)	5.72 (3.4,9.6)	10.97 (7.2,16.6)	18.15 (12.5,26.4)	24.28 (16.6,35.6)	28.14 (19.4,40.9)	37.76 (24.4,58.5)
Other Hispanic	2.07 (0.9,4.7)	4.85 (2.7,8.6)	9.37 (5.9,14.8)	15.63 (10.2,24.0)	20.56 (13.3,31.8)	24.58 (15.7,38.5)	36.12 (21.8,59.8)
Non-Hispanic White	2.00 (1.1,3.5)	4.43 (3.1,6.4)	8.39 (6.3,11.3)	14.35 (10.8,19.1)	18.95 (13.9,25.9)	22.41 (16.0,31.5)	30.02 (19.8,45.6)
Non-Hispanic Black	3.14 (1.9,5.1)	6.79 (4.7,9.8)	12.07 (9.4,15.5)	19.04 (14.4,25.1)	24.13 (17.3,33.7)	28.36 (19.9,40.4)	36.54 (23.5,56.8)
Other race	6.37 (2.7,14.9)	13.28 (6.5,27.0)	23.44 (12.7,43.3)	32.88 (23.2,46.6)	40.42 (28.7,56.9)	45.90 (30.5,69.0)	61.43 (36.3,104.0)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

982

983  
984

**Table 12b. UFCR Estimates (g/day): Total Trophic Level 3 Fish, Adults, 21 years and older, by geography**

<i>Trophic Level 3 Fish</i> Adults ≥21 years old	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>All Adults</b>	2.21 (1.3,3.8)	5.02 (3.5,7.2)	9.82 (7.5,12.9)	17.02 (13.1,22.0)	22.69 (17.4,29.6)	26.67 (20.1,35.3)	37.12 (27.0,51.1)
<b>Region<sup>1</sup></b>							
Midwest	1.55 (0.7,3.3)	3.35 (2.0,5.7)	6.27 (4.3,9.1)	10.74 (7.6,15.2)	14.07 (9.9,19.9)	16.94 (11.8,24.2)	24.63 (16.6,36.5)
Northeast	2.44 (1.5,4.0)	5.90 (4.0,8.6)	11.65 (8.3,16.3)	19.33 (13.9,26.9)	24.83 (18.0,34.3)	29.33 (20.6,41.8)	37.92 (25.5,56.3)
South	2.66 (1.5,4.7)	5.88 (3.9,8.8)	11.04 (8.2,14.9)	18.20 (13.8,23.9)	23.72 (17.8,31.6)	27.66 (19.9,38.4)	37.85 (26.3,54.5)
West	2.64 (1.6,4.4)	5.63 (3.8,8.4)	10.83 (7.6,15.4)	19.16 (13.3,27.6)	25.51 (17.7,36.7)	30.24 (21.4,42.8)	41.95 (28.2,62.5)
<b>Coastal Status</b>							
Noncoastal	1.96 (1.1,3.6)	4.55 (2.8,7.3)	8.97 (6.2,12.9)	15.56 (11.0,22.0)	20.67 (14.8,28.8)	24.60 (17.6,34.3)	33.97 (23.4,49.4)
Coastal	2.70 (1.8,4.1)	5.86 (4.1,8.3)	11.17 (8.0,15.6)	19.04 (13.9,26.0)	25.37 (18.6,34.7)	29.79 (20.9,42.5)	40.94 (27.5,60.9)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	2.35 (1.4,4.0)	5.12 (3.1,8.4)	9.73 (5.7,16.5)	18.49 (12.5,27.4)	25.82 (17.7,37.6)	30.79 (20.8,45.6)	43.67 (27.1,70.3)
Atlantic	3.14 (1.8,5.5)	6.51 (3.9,10.8)	11.72 (7.0,19.6)	18.87 (11.3,31.5)	24.52 (14.7,41.0)	28.52 (16.5,49.3)	39.36 (24.6,62.9)
Gulf of Mexico	4.02 (1.8,9.1)	8.79 (5.1,15.2)	16.11 (10.8,23.9)	24.16 (16.5,35.3)	29.80 (18.1,49.2)	34.07 (18.8,61.8)	47.32 (24.9,89.8)
Great Lakes	1.90 (1.1,3.3)	4.12 (2.7,6.3)	7.82 (5.2,11.7)	13.36 (9.1,19.6)	17.73 (11.8,26.5)	21.67 (14.5,32.4)	30.62 (19.4,48.4)
Inland Northeast	1.90 (1.0,3.7)	5.09 (2.9,8.8)	10.79 (6.6,17.6)	18.60 (11.3,30.7)	23.55 (15.2,36.6)	27.77 (17.8,43.2)	36.80 (23.2,58.4)
Inland Midwest	1.47 (0.6,3.6)	3.18 (1.6,6.3)	5.86 (3.6,9.5)	10.03 (6.4,15.7)	12.96 (8.8,19.2)	15.52 (10.4,23.1)	20.92 (13.3,32.9)
Inland South	2.28 (1.2,4.3)	5.32 (3.1,9.1)	9.91 (6.6,14.8)	16.58 (11.3,24.2)	21.65 (15.0,31.2)	25.13 (17.8,35.5)	33.97 (23.1,49.9)
Inland West	3.03 (1.3,7.0)	6.26 (3.3,11.9)	11.90 (6.6,21.5)	19.51 (11.4,33.4)	25.07 (15.2,41.3)	29.34 (18.2,47.4)	39.19 (24.2,63.6)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

985

986  
987

**Table 13a. UFCR Estimates (g/day): Total Trophic Level 4 Fish, Adults, 21 years and older, by demographics**

<i>Trophic Level 4 Fish</i> Adults ≥21 years old	<i>Percentiles(95% CI)</i>						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	2.69 (1.6,4.5)	6.08 (4.4,8.4)	11.63 (8.7,15.6)	19.63 (14.5,26.6)	26.23 (19.2,35.9)	31.73 (23.5,42.9)	43.40 (31.4,60.1)
<b>Gender</b>							
Female	2.42 (1.4,4.1)	5.62 (4.1,7.7)	10.70 (8.1,14.1)	18.01 (13.5,24.1)	23.95 (17.6,32.6)	28.46 (20.5,39.5)	38.42 (26.7,55.4)
Male	3.08 (1.9,5.0)	6.82 (4.8,9.7)	12.87 (9.3,17.9)	21.74 (15.7,30.1)	29.35 (21.7,39.6)	35.30 (26.3,47.5)	48.37 (35.2,66.5)
<b>Age</b>							
21 to <35 yrs	1.77 (0.8,4.0)	4.64 (2.8,7.8)	9.56 (6.8,13.4)	16.73 (12.2,22.9)	22.95 (16.3,32.4)	28.02 (19.7,39.9)	39.63 (26.6,59.1)
35 to <50 yrs	2.61 (1.7,3.9)	5.74 (4.2,7.9)	10.61 (7.7,14.6)	17.67 (12.7,24.6)	23.41 (16.6,32.9)	27.63 (19.1,39.9)	37.01 (24.2,56.6)
50 to <65 yrs	4.47 (2.5,8.0)	8.87 (6.0,13.1)	16.09 (11.6,22.3)	26.03 (18.6,36.4)	34.47 (24.1,49.2)	40.32 (28.3,57.5)	56.32 (36.7,86.3)
65+ yrs	2.98 (1.8,4.9)	6.18 (3.8,10.1)	11.23 (6.7,18.9)	17.96 (9.9,32.5)	23.89 (13.5,42.4)	27.89 (14.8,52.5)	38.31 (20.9,70.3)
Women of Childbearing Age <sup>1</sup>	1.45 (0.8,2.6)	4.20 (2.9,6.2)	8.71 (6.7,11.4)	15.23 (11.5,20.1)	20.45 (15.1,27.7)	24.65 (18.0,33.8)	34.24 (24.2,48.5)
<b>Income</b>							
<\$20,000	1.64 (0.9,3.0)	4.64 (3.1,6.9)	9.11 (6.8,12.2)	16.59 (12.5,22.0)	23.30 (17.1,31.8)	28.73 (20.4,40.5)	40.04 (27.5,58.3)
\$20k-\$45k	2.28 (1.4,3.8)	5.18 (3.6,7.5)	9.99 (6.9,14.4)	16.71 (11.0,25.4)	22.41 (14.2,35.5)	27.32 (17.5,42.6)	38.85 (25.4,59.5)
\$45k-\$75k	2.52 (1.6,4.1)	5.70 (3.8,8.5)	11.14 (7.7,16.2)	19.18 (13.4,27.5)	25.60 (17.6,37.2)	30.66 (21.4,44.0)	41.07 (27.1,62.3)
\$75k+	3.83 (2.4,6.0)	7.91 (5.7,10.9)	14.26 (10.7,19.0)	22.95 (17.0,31.0)	29.83 (21.8,40.8)	35.16 (25.4,48.6)	46.33 (31.4,68.3)
>\$20,000	2.96 (1.5,5.9)	6.56 (3.9,11.1)	11.94 (7.5,19.0)	19.89 (12.5,31.7)	29.27 (15.8,54.2)	36.32 (18.1,73.0)	45.96 (25.4,83.0)
Inc Ref/DK	2.85 (0.8,9.9)	6.99 (2.8,17.4)	12.35 (6.9,22.1)	19.02 (12.3,29.5)	24.89 (15.7,39.6)	29.29 (18.3,46.8)	40.91 (23.0,72.7)
Inc missing	3.06 (0.4,21.1)	7.48 (2.0,28.6)	15.70 (5.1,48.3)	26.67 (10.5,67.7)	39.22 (14.8,104.1)	46.62 (18.1,119.8)	55.32 (27.3,112.1)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	1.97 (0.9,4.2)	5.19 (2.9,9.2)	10.02 (6.5,15.3)	16.76 (11.8,23.9)	22.56 (16.2,31.5)	27.40 (19.4,38.7)	37.40 (25.0,55.9)
Other Hispanic	2.14 (1.1,4.3)	5.17 (3.1,8.6)	10.39 (6.6,16.4)	17.90 (11.9,26.9)	24.93 (16.2,38.3)	28.71 (19.2,43.0)	41.70 (27.4,63.6)
Non-Hispanic White	2.69 (1.7,4.4)	6.00 (4.3,8.4)	11.41 (8.2,15.9)	19.18 (13.5,27.3)	25.50 (17.8,36.6)	30.90 (22.1,43.2)	41.54 (28.7,60.2)
Non-Hispanic Black	2.74 (1.4,5.4)	6.20 (4.1,9.3)	11.74 (8.6,16.0)	19.38 (14.4,26.1)	26.00 (19.3,35.0)	31.26 (23.3,41.9)	42.03 (30.6,57.8)
Other race	4.90 (2.9,8.2)	10.34 (7.0,15.4)	18.35 (13.3,25.3)	28.73 (20.5,40.3)	38.34 (27.1,54.2)	47.20 (33.9,65.7)	62.93 (41.8,94.8)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

988

989  
990

**Table 13b. UFCR Estimates (g/day): Total Trophic Level 4 Fish, Adults, 21 years and older, by geography**

<i>Trophic Level 4 Fish</i>	<i>Percentiles(95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	2.69 (1.6,4.5)	6.08 (4.4,8.4)	11.63 (8.7,15.6)	19.63 (14.5,26.6)	26.23 (19.2,35.9)	31.73 (23.5,42.9)	43.40 (31.4,60.1)
<b>Region<sup>1</sup></b>							
Midwest	2.16 (1.2,4.0)	4.88 (3.1,7.7)	9.64 (6.4,14.5) 14.12	16.11 (10.4,24.9)	21.45 (13.5,34.2)	25.88 (16.3,41.1)	37.87 (25.8,55.6)
Northeast	3.04 (1.8,5.2)	7.36 (5.1,10.7)	(10.0,19.8)	23.38 (16.7,32.7)	30.50 (21.5,43.4)	35.31 (24.3,51.3)	46.24 (29.8,71.7)
South	2.52 (1.5,4.2)	5.76 (4.1,8.1)	10.91 (8.3,14.3)	19.04 (14.6,24.8)	25.85 (19.6,34.1)	32.13 (24.0,43.0)	46.62 (33.2,65.4)
West	3.56 (2.1,6.1)	7.39 (5.2,10.4)	13.25 (9.6,18.2)	21.39 (15.2,30.0)	27.43 (18.8,40.1)	32.29 (21.8,47.9)	42.71 (27.7,65.9)
<b>Coastal Status</b>							
Noncoastal	2.72 (1.4,5.4)	6.10 (4.1,9.1)	11.44 (8.4,15.6)	19.13 (14.1,25.9)	24.99 (18.0,34.6)	30.21 (21.9,41.7)	40.58 (28.4,57.9)
Coastal	2.66 (1.7,4.2)	6.05 (3.9,9.4)	12.01 (7.9,18.1)	20.67 (13.7,31.1)	28.09 (19.1,41.4)	34.18 (23.9,48.9)	47.20 (32.8,67.9)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	2.99 (1.8,5.1)	6.51 (4.1,10.3)	11.93 (7.6,18.7)	19.17 (11.6,31.8)	25.40 (15.8,40.7)	29.54 (17.7,49.2)	38.63 (22.3,66.8)
Atlantic	2.91 (1.4,6.1)	6.53 (3.5,12.0)	12.78 (7.5,21.7)	20.93 (11.9,36.7)	28.04 (16.7,47.0)	33.54 (20.4,55.1)	45.05 (27.6,73.6)
Gulf of Mexico	2.13 (1.0,4.4)	5.07 (3.0,8.6)	11.72 (6.9,19.9)	26.29 (12.1,57.0)	38.78 (17.2,87.3)	49.62 (22.8,108.1)	69.59 (35.2,137.8)
Great Lakes	1.91 (1.0,3.8)	4.56 (2.3,8.9)	10.03 (5.6,17.9)	18.66 (11.2,30.9)	26.34 (16.8,41.4)	33.10 (22.4,48.9)	44.20 (29.3,66.6)
Inland Northeast	2.85 (1.3,6.2)	7.42 (4.3,12.7)	14.49 (9.1,23.1)	23.82 (15.2,37.4)	30.73 (19.6,48.2)	35.34 (23.0,54.4)	44.41 (27.3,72.2)
Inland Midwest	2.26 (1.1,4.8)	4.93 (3.0,8.1)	9.51 (6.2,14.5)	15.39 (10.2,23.2)	20.20 (13.1,31.2)	24.30 (15.8,37.3)	33.77 (22.1,51.5)
Inland South	2.55 (1.1,5.8)	5.79 (3.5,9.7)	10.43 (7.7,14.2)	17.23 (13.1,22.7)	22.87 (17.3,30.3)	27.11 (20.2,36.4)	37.64 (27.0,52.5)
Inland West	4.25 (1.8,10.0)	8.39 (5.0,14.1)	14.70 (9.6,22.6)	22.98 (15.3,34.5)	29.70 (19.7,44.7)	35.24 (23.0,53.9)	47.41 (30.2,74.4)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

991

Table 14a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 2 Fish, Adults, 21 years and older, by demographics

Trophic Level 2 FW+Est Fish	Percentiles (95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.59 (0.3,1.1)	1.66 (1.0,2.7)	4.07 (2.9,5.8)	8.23 (6.1,11.1)	12.08 (8.8,16.6)	15.25 (10.9,21.4)	22.56 (15.2,33.4)
<b>Gender</b>							
Female	0.51 (0.3,0.9)	1.44 (0.9,2.3)	3.46 (2.4,5.0)	6.87 (5.0,9.4)	10.17 (7.3,14.3)	12.79 (8.9,18.4)	19.30 (12.1,30.9)
Male	0.72 (0.4,1.5)	2.03 (1.2,3.4)	4.87 (3.3,7.3)	9.79 (7.0,13.6)	14.42 (10.3,20.3)	17.55 (12.6,24.4)	26.51 (17.1,41.2)
<b>Age</b>							
21 to <35 yrs	0.52 (0.3,1.0)	1.59 (1.0,2.6)	4.05 (2.6,6.2)	8.21 (5.6,12.1)	11.96 (8.2,17.4)	14.88 (10.4,21.3)	21.37 (15.3,29.9)
35 to <50 yrs	0.66 (0.3,1.3)	1.87 (1.1,3.1)	4.52 (3.0,6.8)	9.01 (6.2,13.2)	13.82 (8.7,22.0)	17.48 (10.5,29.0)	26.20 (14.0,48.9)
50 to <65 yrs	0.66 (0.3,1.6)	1.76 (0.9,3.5)	4.15 (2.5,6.9)	8.36 (5.7,12.2)	11.88 (8.2,17.2)	14.39 (9.9,20.8)	20.11 (13.7,29.4)
65+ yrs	0.47 (0.2,1.0)	1.29 (0.7,2.3)	3.14 (2.0,4.8)	6.45 (4.6,9.0)	9.44 (6.9,12.9)	11.99 (8.8,16.4)	18.19 (12.6,26.4)
Women of Childbearing Age <sup>1</sup>	0.38 (0.2,0.7)	1.23 (0.8,2.0)	3.22 (2.2,4.8)	6.51 (4.6,9.1)	9.75 (6.7,14.2)	12.43 (8.2,18.8)	18.56 (11.7,29.4)
<b>Income</b>							
<\$20,000	0.40 (0.2,0.8)	1.26 (0.7,2.2)	3.27 (2.1,5.0)	6.68 (4.6,9.7)	10.42 (7.5,14.5)	13.28 (9.4,18.8)	18.46 (12.4,27.6)
\$20k-\$45k	0.52 (0.3,1.0)	1.45 (0.9,2.4)	3.66 (2.5,5.4)	7.57 (5.3,10.8)	11.27 (7.6,16.7)	14.11 (9.7,20.5)	21.32 (13.8,32.9)
\$45k-\$75k	0.61 (0.3,1.2)	1.72 (1.0,3.0)	4.20 (2.6,6.7)	8.67 (5.4,13.9)	12.49 (7.9,19.6)	16.00 (9.7,26.4)	22.80 (14.3,36.5)
\$75k+	0.74 (0.3,1.8)	1.97 (1.0,3.8)	4.59 (2.8,7.5)	8.95 (6.0,13.3)	13.19 (9.3,18.8)	16.95 (11.6,24.8)	24.64 (15.3,39.6)
>\$20,000	0.81 (0.3,1.9)	1.88 (0.8,4.2)	4.43 (2.2,9.0)	9.04 (4.7,17.5)	13.08 (6.6,26.0)	15.69 (8.1,30.5)	25.94 (9.6,70.0)
Inc Ref/DK	0.72 (0.3,1.5)	2.07 (1.1,4.0)	5.08 (2.6,10.1)	9.55 (4.9,18.6)	13.65 (7.0,26.7)	15.92 (8.7,29.1)	23.16 (12.0,44.7)
Inc missing	0.32 (0.1,1.5)	1.56 (0.3,8.1)	4.08 (0.8,20.8)	7.72 (1.8,33.0)	11.16 (2.5,50.1)	11.86 (3.9,36.5)	14.22 (5.5,37.1)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	0.86 (0.4,1.7)	2.45 (1.4,4.3)	5.70 (3.6,9.1)	11.39 (8.0,16.2)	16.28 (11.6,22.9)	20.68 (14.7,29.0)	30.29 (20.2,45.5)
Other Hispanic	1.02 (0.5,2.2)	2.67 (1.5,4.8)	6.29 (3.6,11.1)	11.80 (6.8,20.3)	17.67 (8.5,36.7)	21.46 (10.5,43.7)	30.05 (15.0,60.3)
White	0.50 (0.2,1.0)	1.40 (0.8,2.5)	3.40 (2.2,5.1)	6.86 (4.9,9.6)	10.16 (7.4,13.9)	12.80 (9.3,17.7)	18.67 (13.3,26.1)
Black	0.74 (0.4,1.5)	2.00 (1.2,3.5)	4.56 (2.9,7.1)	8.64 (5.8,12.8)	12.45 (8.8,17.6)	15.60 (11.2,21.8)	21.65 (14.6,32.0)
Other race	1.48 (0.7,3.3)	3.66 (1.7,7.8)	7.55 (3.9,14.8)	14.86 (5.8,38.1)	19.80 (7.9,49.9)	24.47 (9.0,66.6)	36.74 (9.7,139.5)

<sup>1</sup>Women 13 to 49 years<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

995  
996

Table 14b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 2 Fish, Adults, 21 years and older, by geography

Trophic Level 2 FW+Est Fish	Percentiles (95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.59 (0.3,1.1)	1.66 (1.0,2.7)	4.07 (2.9,5.8)	8.23 (6.1,11.1)	12.08 (8.8,16.6)	15.25 (10.9,21.4)	22.56 (15.2,33.4)
<b>Region<sup>1</sup></b>							
Midwest	0.32 (0.1,0.9)	0.87 (0.3,2.2)	2.17 (1.1,4.3)	4.40 (2.4,8.1)	6.70 (3.9,11.4)	8.62 (5.2,14.3)	12.97 (7.6,22.1)
Northeast	0.94 (0.6,1.6)	2.51 (1.6,3.8)	5.61 (4.0,7.9)	10.70 (7.5,15.2)	14.86 (10.3,21.5)	18.23 (12.5,26.5)	26.51 (16.8,41.9)
South	0.76 (0.4,1.5)	2.09 (1.2,3.6)	4.80 (3.1,7.4)	9.47 (6.5,13.8)	13.76 (9.3,20.5)	16.81 (11.5,24.6)	24.79 (15.6,39.3)
West	0.68 (0.3,1.4)	1.82 (1.0,3.3)	4.18 (2.5,6.9)	8.39 (5.1,13.7)	12.01 (7.2,20.1)	15.18 (8.7,26.5)	22.90 (11.6,45.4)
<b>Coastal Status</b>							
Noncoastal	0.47 (0.2,0.9)	1.36 (0.8,2.2)	3.38 (2.4,4.8)	6.99 (5.1,9.6)	10.69 (7.4,15.5)	13.50 (9.1,20.1)	20.73 (12.7,33.8)
Coastal	0.86 (0.4,1.8)	2.29 (1.3,4.1)	5.09 (3.2,8.2)	9.73 (6.7,14.2)	14.09 (9.9,20.1)	17.09 (12.1,24.2)	24.90 (16.7,37.1)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	0.84 (0.4,1.9)	2.24 (1.1,4.5)	4.96 (2.7,9.1)	9.38 (5.3,16.7)	13.77 (7.3,26.0)	16.70 (8.9,31.2)	26.68 (10.5,68.1)
Atlantic	0.84 (0.3,2.6)	2.19 (0.9,5.2)	4.69 (2.2,10.2)	8.65 (4.4,17.1)	12.44 (7.1,21.9)	15.68 (9.7,25.4)	22.00 (13.6,35.6)
Gulf of Mexico	1.72 (0.6,5.2)	4.28 (1.8,10.3)	8.71 (4.4,17.3)	15.08 (8.4,26.9)	19.41 (11.5,32.8)	22.47 (13.8,36.5)	30.53 (18.9,49.3)
Great Lakes	0.60 (0.3,1.3)	1.57 (0.8,3.0)	3.47 (2.0,6.1)	7.08 (4.3,11.6)	10.14 (6.1,16.9)	12.55 (7.4,21.4)	19.78 (9.6,40.6)
Inland Northeast	0.93 (0.5,1.8)	2.63 (1.5,4.6)	6.14 (3.5,10.8)	11.79 (6.2,22.3)	15.92 (8.8,28.8)	19.70 (10.6,36.7)	29.62 (13.7,64.2)
Inland Midwest	0.28 (0.1,0.8)	0.75 (0.3,1.9)	1.83 (0.8,3.9)	3.64 (1.7,7.6)	5.50 (2.8,10.7)	7.04 (3.7,13.5)	11.20 (6.0,20.9)
Inland South	0.63 (0.3,1.3)	1.73 (1.0,3.1)	4.07 (2.5,6.7)	8.11 (4.8,13.8)	11.72 (6.7,20.4)	14.81 (8.2,26.8)	22.44 (11.1,45.5)
Inland West	0.59 (0.3,1.3)	1.50 (0.8,2.9)	3.39 (2.0,5.9)	6.61 (4.1,10.6)	10.37 (6.3,17.0)	12.96 (7.8,21.5)	18.56 (11.0,31.2)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

997

998  
999

**Table 15a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 3 Fish, Adults, 21 years and older, by demographics**

<i>Trophic Level 3 FW+Est Fish</i>	<i>Percentiles (95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.87 (0.5,1.7)	2.24 (1.3,3.7)	5.06 (3.6,7.1)	9.51 (7.0,13.0)	13.78 (9.5,20.1)	17.31 (11.1,27.0)	25.10 (14.9,42.2)
<b>Gender</b>							
Female	0.73 (0.4,1.5)	1.87 (1.1,3.3)	4.18 (2.8,6.2)	7.77 (5.5,11.0)	10.90 (7.7,15.5)	13.77 (9.4,20.2)	19.84 (12.5,31.4)
Male	1.13 (0.6,2.1)	2.86 (1.9,4.4)	6.30 (4.6,8.6)	11.83 (8.3,17.0)	16.88 (10.6,26.8)	20.52 (12.6,33.4)	29.34 (16.5,52.3)
<b>Age</b>							
21 to <35 yrs	0.77 (0.5,1.2)	2.08 (1.4,3.0)	4.95 (3.4,7.1)	9.43 (6.2,14.4)	13.88 (8.1,23.7)	17.63 (9.5,32.7)	25.99 (13.4,50.4)
35 to <50 yrs	0.88 (0.4,1.9)	2.20 (1.1,4.2)	5.00 (3.2,7.8)	9.34 (6.3,13.8)	13.30 (8.9,19.8)	16.75 (11.0,25.5)	23.34 (14.8,36.8)
50 to <65 yrs	1.20 (0.6,2.5)	2.87 (1.7,4.9)	5.98 (4.0,8.9)	11.08 (7.7,16.0)	15.75 (10.0,24.8)	19.30 (11.6,32.0)	28.05 (14.7,53.6)
65+ yrs	0.71 (0.3,1.8)	1.78 (0.9,3.7)	4.01 (2.5,6.5)	7.53 (5.1,11.2)	10.80 (7.4,15.7)	13.68 (9.3,20.0)	20.24 (12.5,32.8)
Women of Childbearing Age <sup>1</sup>	0.52 (0.3,1.0)	1.56 (1.0,2.6)	3.69 (2.6,5.3)	7.24 (5.2,10.1)	10.41 (7.3,14.8)	12.89 (8.7,19.0)	19.19 (12.0,30.7)
<b>Income</b>							
<\$20,000	0.78 (0.4,1.3)	2.11 (1.3,3.5)	5.04 (3.6,7.0)	9.96 (7.3,13.6)	14.80 (9.7,22.7)	18.28 (11.6,28.9)	28.09 (14.5,54.3)
\$20k-\$45k	0.73 (0.4,1.4)	1.90 (1.1,3.1)	4.31 (3.0,6.2)	8.08 (5.7,11.5)	11.47 (7.9,16.7)	14.45 (9.5,22.1)	20.96 (13.3,32.9)
\$45k-\$75k	0.81 (0.4,1.6)	2.16 (1.3,3.5)	4.97 (3.4,7.2)	9.25 (6.3,13.5)	13.20 (8.6,20.3)	16.37 (10.2,26.4)	22.88 (13.9,37.7)
\$75k+	1.09 (0.4,2.8)	2.59 (1.3,5.3)	5.45 (3.2,9.2)	10.36 (7.3,14.8)	14.53 (10.0,21.2)	18.44 (11.9,28.5)	27.05 (15.4,47.5)
>\$20,000	0.86 (0.4,1.9)	2.14 (1.0,4.5)	4.91 (1.9,12.7)	9.23 (2.9,29.3)	11.96 (4.1,35.2)	15.82 (4.0,62.0)	22.55 (5.2,97.4)
Inc Ref/DK	1.26 (0.6,2.8)	3.55 (1.5,8.5)	7.58 (3.2,18.0)	12.57 (5.9,26.8)	17.92 (7.5,43.1)	21.03 (8.6,51.2)	26.92 (11.4,63.8)
Inc missing	1.76 (0.3,9.9)	4.00 (1.2,13.7)	9.49 (2.6,35.0)	16.15 (4.9,53.1)	22.63 (6.4,80.3)	28.43 (7.4,108.7)	34.26 (12.3,95.6)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	1.00 (0.5,1.9)	2.69 (1.6,4.5)	5.80 (3.8,8.9)	10.67 (7.3,15.6)	15.01 (10.2,22.0)	18.15 (11.9,27.6)	27.04 (16.5,44.2)
Other Hispanic	1.20 (0.6,2.3)	2.87 (1.6,5.0)	6.19 (3.8,10.2)	10.70 (6.6,17.4)	14.69 (8.7,24.8)	18.39 (10.1,33.5)	25.99 (12.8,52.7)
White	0.75 (0.4,1.5)	1.86 (1.0,3.4)	4.12 (2.7,6.2)	7.69 (5.4,11.0)	10.83 (7.6,15.5)	13.91 (9.1,21.2)	20.39 (12.3,33.8)
Black	1.38 (0.7,2.7)	3.36 (2.1,5.5)	6.82 (4.7,10.0)	12.17 (8.7,16.9)	16.85 (11.9,23.9)	20.27 (13.8,29.7)	29.04 (18.0,46.9)
Other race	3.07 (1.8,5.4)	6.35 (4.0,10.1)	12.01 (6.9,20.8)	19.39 (10.4,36.3)	26.51 (11.8,59.4)	29.82 (14.7,60.5)	44.69 (14.3,139.4)

<sup>1</sup>Women 13 to 49 years

<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

000

001  
002

Table 15b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 3 Fish, Adults, 21 years and older, by geography

Trophic Level 3 FW+Est Fish	Percentiles (95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.87 (0.5,1.7)	2.24 (1.3,3.7)	5.06 (3.6,7.1)	9.51 (7.0,13.0)	13.78 (9.5,20.1)	17.31 (11.1,27.0)	25.10 (14.9,42.2)
<b>Region<sup>1</sup></b>							
Midwest	0.54 (0.3,1.2)	1.37 (0.7,2.6)	3.05 (1.9,4.9)	5.73 (3.8,8.7)	8.44 (5.4,13.1)	10.73 (6.5,17.8)	15.82 (8.9,28.2)
Northeast	1.02 (0.5,2.2)	2.60 (1.4,4.7)	5.54 (3.7,8.4)	10.70 (7.3,15.8)	15.01 (9.0,24.9)	17.92 (10.6,30.4)	24.92 (13.7,45.5)
South	1.16 (0.7,2.1)	2.86 (1.8,4.7)	6.36 (4.5,9.0)	11.89 (8.4,16.9)	17.04 (11.2,25.8)	21.18 (13.3,33.9)	30.86 (17.3,55.1)
West	1.00 (0.5,2.1)	2.42 (1.4,4.3)	5.14 (3.3,8.0)	8.97 (5.7,14.2)	12.60 (7.7,20.5)	15.39 (9.1,26.1)	21.43 (11.5,39.8)
<b>Coastal Status</b>							
Noncoastal	0.72 (0.4,1.4)	1.85 (1.1,3.2)	4.15 (2.9,6.0)	7.93 (5.6,11.1)	11.29 (7.6,16.8)	14.08 (8.8,22.5)	20.71 (11.6,37.1)
Coastal	1.24 (0.6,2.6)	3.08 (1.8,5.2)	6.56 (4.5,9.6)	11.97 (8.6,16.6)	17.10 (11.7,25.0)	20.70 (13.8,31.1)	29.55 (18.0,48.6)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	1.07 (0.5,2.4)	2.66 (1.4,5.1)	5.52 (3.1,9.8)	9.67 (5.6,16.7)	13.01 (7.4,22.9)	16.60 (8.9,30.8)	22.27 (11.5,43.2)
Atlantic	1.34 (0.5,3.7)	3.09 (1.4,7.0)	6.39 (3.5,11.6)	11.67 (7.7,17.8)	16.27 (10.6,24.9)	19.93 (12.4,32.1)	27.66 (15.3,50.0)
Gulf of Mexico	2.76 (1.1,7.2)	6.54 (3.4,12.7)	12.33 (7.3,20.9)	20.44 (13.0,32.2)	27.82 (17.2,45.1)	33.74 (19.0,59.9)	46.12 (21.8,97.7)
Great Lakes	0.85 (0.3,2.1)	2.12 (1.1,4.1)	4.37 (2.6,7.3)	8.23 (5.0,13.4)	11.40 (6.6,19.6)	13.57 (8.1,22.7)	19.78 (10.4,37.6)
Inland Northeast	0.77 (0.3,2.2)	2.05 (0.8,5.0)	4.58 (2.6,8.1)	8.86 (6.1,12.9)	13.07 (8.0,21.3)	15.78 (9.2,27.1)	22.37 (11.6,43.2)
Inland Midwest	0.49 (0.2,1.0)	1.21 (0.7,2.2)	2.75 (1.8,4.3)	5.16 (3.3,8.1)	7.34 (4.5,11.9)	9.52 (5.2,17.4)	14.24 (6.9,29.5)
Inland South	0.95 (0.6,1.6)	2.41 (1.6,3.6)	5.21 (3.7,7.3)	9.34 (6.5,13.5)	13.31 (8.3,21.2)	16.48 (9.5,28.5)	25.89 (10.9,61.5)
Inland West	0.94 (0.4,2.2)	2.22 (1.1,4.3)	4.74 (2.9,7.7)	8.39 (5.1,13.7)	11.90 (6.9,20.6)	14.83 (8.0,27.5)	20.49 (10.2,41.0)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

003

Table 16a. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 4 Fish, Adults, 21 years and older, by demographics

Trophic Level 4 FW+Est Fish	Percentiles (95% CI)						
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.26 (0.1,0.5)	0.80 (0.4,1.5)	2.16 (1.3,3.7)	4.97 (3.1,8.1)	8.19 (5.3,12.7)	11.53 (7.7,17.3)	20.71 (13.2,32.4)
<b>Gender</b>							
Female	0.21 (0.1,0.4)	0.64 (0.3,1.2)	1.71 (1.0,3.1)	3.91 (2.3,6.8)	6.29 (3.7,10.7)	8.52 (4.9,14.7)	15.45 (9.3,25.7)
Male	0.35 (0.2,0.7)	1.08 (0.6,2.0)	2.83 (1.7,4.7)	6.44 (4.1,10.1)	10.56 (7.0,16.0)	14.81 (9.7,22.6)	27.06 (15.8,46.3)
<b>Age</b>							
21 to <35 yrs	0.19 (0.1,0.4)	0.59 (0.3,1.0)	1.69 (1.1,2.7)	4.21 (2.7,6.5)	7.01 (4.5,10.9)	10.19 (6.2,16.8)	18.43 (10.4,32.8)
35 to <50 yrs	0.22 (0.1,0.5)	0.69 (0.3,1.4)	1.78 (0.9,3.7)	4.19 (2.2,7.8)	6.69 (3.6,12.6)	9.28 (5.2,16.5)	16.62 (9.5,29.0)
50 to <65 yrs	0.48 (0.2,1.0)	1.28 (0.7,2.4)	3.26 (2.0,5.4)	7.09 (4.4,11.3)	11.79 (7.3,18.9)	15.98 (9.6,26.7)	26.88 (15.5,46.7)
65+ yrs	0.32 (0.1,0.8)	0.91 (0.4,2.1)	2.33 (1.1,4.9)	5.05 (2.5,10.3)	7.89 (3.8,16.3)	10.66 (5.2,21.7)	19.39 (10.7,35.2)
Women of Childbearing Age <sup>1</sup>	0.12 (0.1,0.2)	0.42 (0.2,0.8)	1.23 (0.7,2.2)	2.91 (1.6,5.3)	4.72 (2.5,8.8)	6.48 (3.5,12.1)	11.63 (6.0,22.6)
<b>Income</b>							
<\$20,000	0.26 (0.1,0.5)	0.85 (0.5,1.5)	2.43 (1.5,3.8)	5.74 (3.8,8.7)	9.57 (6.1,15.0)	12.71 (8.2,19.7)	21.80 (13.5,35.1)
\$20k-\$45k	0.22 (0.1,0.5)	0.67 (0.3,1.6)	1.79 (0.7,4.3)	4.16 (1.8,9.5)	6.55 (2.7,16.1)	9.09 (3.9,20.9)	17.92 (9.9,32.6)
\$45k-\$75k	0.20 (0.1,0.5)	0.67 (0.3,1.3)	1.77 (0.9,3.5)	4.07 (2.1,7.8)	6.45 (3.3,12.6)	9.02 (5.0,16.3)	16.20 (9.1,29.0)
\$75k+	0.34 (0.2,0.7)	0.99 (0.5,1.8)	2.55 (1.5,4.2)	6.01 (4.0,9.1)	9.48 (6.2,14.6)	13.59 (8.4,22.1)	23.79 (13.3,42.7)
>\$20,000	0.29 (0.1,0.8)	0.90 (0.4,2.2)	2.60 (1.1,6.2)	5.59 (2.5,12.4)	9.12 (3.8,22.1)	11.80 (4.9,28.3)	20.13 (7.7,52.3)
Inc Ref/DK	0.31 (0.1,0.8)	1.03 (0.5,2.2)	2.69 (1.3,5.6)	6.07 (2.9,12.6)	9.10 (3.7,22.2)	11.73 (4.5,30.5)	22.29 (9.7,51.2)
Inc missing	0.50 (0.1,3.5)	1.30 (0.3,5.5)	3.65 (1.1,12.4)	9.76 (2.6,36.2)	16.46 (4.3,63.6)	23.98 (5.1,111.8)	42.98 (7.5,245.0)
<b>Race/Ethnicity<sup>2</sup></b>							
Mexican American	0.29 (0.2,0.5)	0.87 (0.5,1.5)	2.34 (1.4,4.0)	5.31 (3.0,9.5)	8.80 (5.0,15.4)	12.05 (6.9,21.0)	20.34 (10.9,38.1)
Other Hispanic	0.30 (0.1,0.9)	0.87 (0.3,2.2)	2.15 (0.9,5.1)	4.65 (1.9,11.4)	7.85 (3.5,17.7)	10.68 (4.8,23.6)	20.41 (8.0,51.9)
White	0.22 (0.1,0.5)	0.66 (0.3,1.3)	1.74 (0.9,3.2)	3.92 (2.2,6.8)	6.18 (3.6,10.6)	8.38 (5.0,14.1)	15.63 (10.0,24.4)
Black	0.44 (0.2,0.9)	1.29 (0.7,2.4)	3.31 (1.9,5.8)	7.14 (4.1,12.6)	11.61 (7.2,18.8)	15.67 (9.7,25.4)	26.57 (15.7,45.1)
Other race	0.91 (0.4,2.0)	2.56 (1.4,4.8)	6.32 (3.7,10.9)	13.80 (7.8,24.5)	19.74 (10.8,36.2)	26.36 (14.0,49.6)	51.03 (20.3,128.5)

<sup>1</sup>Women 13 to 49 years<sup>2</sup>Race/Ethnicity is as defined by NHANES. Respondents who self-identified as "Mexican American" were coded as such regardless of their other race-ethnicity identities. Otherwise, self-identified "Hispanic" ethnicity was coded as "Other Hispanic." All other non-Hispanic participants were then categorized based on their self-reported races: non-Hispanic white, non-Hispanic black, and other non-Hispanic race including non-Hispanic multiracial (other race).

006  
007

**Table 16b. UFCR Estimates (g/day): Total Freshwater + Estuarine Trophic Level 4 Fish, Adults, 21 years and older, by geography**

<i>Trophic Level 4 FW+Est Fish</i>	<i>Percentiles (95% CI)</i>						
	<i>25<sup>th</sup></i>	<i>50<sup>th</sup></i>	<i>75<sup>th</sup></i>	<i>90<sup>th</sup></i>	<i>95<sup>th</sup></i>	<i>97<sup>th</sup></i>	<i>99<sup>th</sup></i>
<b>Adults ≥21 years old</b>							
<b>All Adults</b>	0.26 (0.1,0.5)	0.80 (0.4,1.5)	2.16 (1.3,3.7)	4.97 (3.1,8.1)	8.19 (5.3,12.7)	11.53 (7.7,17.3)	20.71 (13.2,32.4)
<b>Region<sup>1</sup></b>							
Midwest	0.20 (0.1,0.6)	0.61 (0.2,1.6)	1.63 (0.6,4.2)	3.83 (1.7,8.9)	6.13 (2.6,14.2)	8.65 (4.1,18.2)	15.80 (7.9,31.4)
Northeast	0.21 (0.1,0.5)	0.70 (0.4,1.4)	1.97 (1.2,3.3)	4.53 (2.9,7.0)	6.94 (4.4,10.9)	9.53 (6.1,14.8)	19.43 (9.8,38.7)
South	0.31 (0.2,0.6)	0.98 (0.6,1.7)	2.58 (1.5,4.4)	6.11 (4.0,9.4)	10.15 (6.8,15.2)	14.10 (9.5,21.0)	25.87 (16.6,40.4)
West	0.29 (0.1,0.6)	0.87 (0.5,1.6)	2.28 (1.3,3.9)	5.21 (3.2,8.5)	8.38 (5.1,13.8)	11.36 (6.8,19.1)	18.43 (9.9,34.2)
<b>Coastal Status</b>							
Noncoastal	0.25 (0.1,0.5)	0.77 (0.4,1.4)	2.08 (1.2,3.5)	4.74 (2.9,7.7)	7.66 (4.7,12.4)	10.61 (6.6,17.1)	19.66 (11.6,33.3)
Coastal	0.28 (0.1,0.6)	0.86 (0.4,1.8)	2.30 (1.2,4.4)	5.52 (3.4,9.1)	9.03 (5.8,14.1)	12.76 (8.6,18.9)	22.35 (14.6,34.3)
<b>Coastal/Inland Region<sup>2</sup></b>							
Pacific	0.26 (0.1,0.6)	0.81 (0.4,1.8)	2.18 (1.1,4.5)	5.29 (2.9,9.7)	9.05 (5.2,15.8)	12.67 (6.9,23.2)	20.66 (10.9,39.0)
Atlantic	0.26 (0.1,0.8)	0.80 (0.3,2.1)	2.11 (0.9,5.0)	4.59 (1.9,11.0)	7.17 (2.9,17.6)	9.72 (4.1,23.0)	17.78 (9.2,34.2)
Gulf of Mexico	0.63 (0.3,1.3)	1.80 (0.9,3.5)	4.76 (2.8,8.1)	10.74 (6.9,16.8)	16.98 (10.7,26.9)	23.32 (14.2,38.3)	42.52 (21.3,85.0)
Great Lakes	0.20 (0.1,0.4)	0.57 (0.2,1.3)	1.49 (0.7,3.4)	3.71 (2.0,6.8)	5.93 (3.2,10.9)	8.34 (4.7,14.9)	14.84 (8.1,27.1)
Inland Northeast	0.17 (0.1,0.4)	0.59 (0.3,1.3)	1.68 (0.9,3.2)	3.95 (2.3,6.8)	6.15 (3.5,10.8)	8.50 (4.9,14.8)	20.29 (5.9,69.7)
Inland Midwest	0.20 (0.1,0.6)	0.62 (0.2,1.9)	1.67 (0.6,4.7)	3.85 (1.5,10.2)	6.14 (2.3,16.4)	8.70 (3.6,20.9)	15.81 (6.8,36.5)
Inland South	0.31 (0.2,0.5)	0.95 (0.6,1.5)	2.52 (1.7,3.8)	5.68 (3.7,8.7)	9.66 (6.2,15.1)	13.66 (8.0,23.2)	23.79 (13.6,41.6)
Inland West	0.34 (0.2,0.7)	0.93 (0.5,1.8)	2.42 (1.3,4.5)	5.15 (2.8,9.4)	7.72 (4.0,15.0)	9.96 (4.9,20.4)	15.98 (6.9,37.3)

<sup>1</sup>US Regions are the U.S. Census Bureau regions. Midwest = OH, MI, IN, WI, IL, MO, IA, MN, SD, ND, NE, KS. Northeast = PA, NY, NJ, CT, RI, MA, NH, VT, ME. South = DE, MD, DC, VA, WV, KY, TN, NC, SC, GA, AL, MS, FL, LA, AR, OK, TX. West = NM, CO, WY, MT, ID, UT, AZ, NV, CA, OR, WA, AK, HI.

<sup>2</sup>Coastal regions include counties bordering the 3 coasts (Pacific, Atlantic, and Gulf of Mexico) and the Great Lakes and estuaries and bays. Additionally, any county that did not directly border a coast, but the central point was within 25 miles of a coast was defined as coastal. The inland regions are the remaining counties in each of the 4 Census Regions.

008

1009 **5.3 Comparison of UFCR Estimates: Modified NCI Method and**  
 1010 **NCI Method**

1011 In order to assess EPA’s Modified NCI Method, we ran models using both the Modified NCI  
 1012 Method and the NCI Method. We ran four models that differed by dependent variable (i.e., fish  
 1013 type), population subset, and predictors. The four models are described in Table 17.

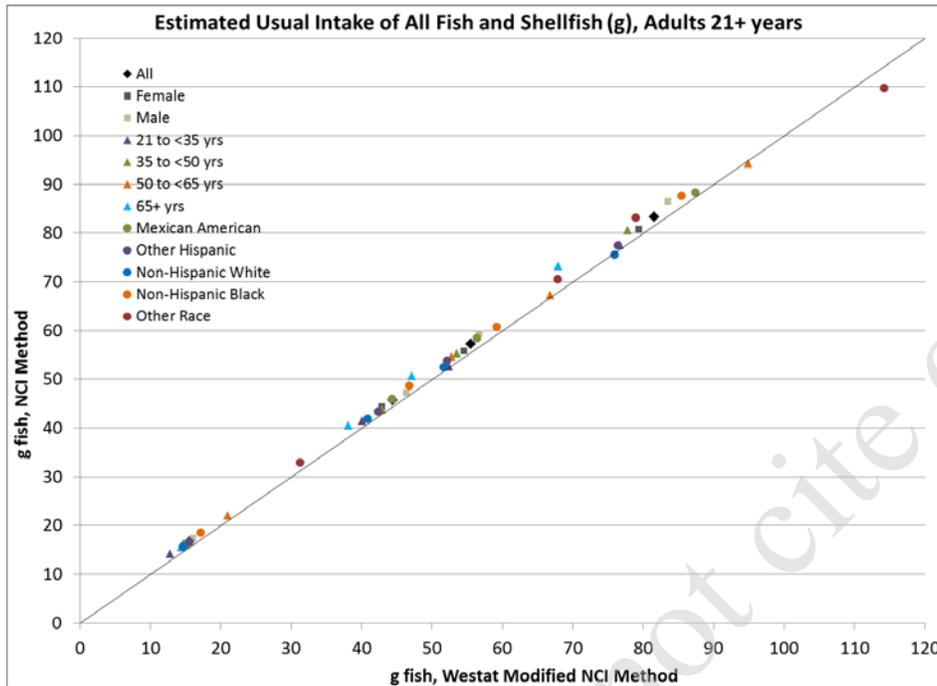
1014 **Table 17. Models used to compare UFCR Estimates from the Modified NCI Method and the NCI**  
 1015 **Method**

Model	Dependent variable	Population	Predictors
1	Total fish	Adults, ≥21 years	age, race, income, body weight, and frequency of fish consumption
2	FW <sub>+</sub> Est fish	Total population	Gender and frequency of fish consumption
3	Marine fish	Total population	Gender and frequency of fish consumption
4	Estuarine fish	Total population	Gender and frequency of fish consumption

1018 These models omitted significant predictors (e.g., coastal/inland region and interactions) which  
 1019 reduce the accuracy of the estimates but speed up the process. In order to compare the variance  
 1020 estimates between the two methods, we ran the total fish model for each replicate weight (i.e., 64  
 1021 times) to obtain 95% confidence intervals. For the NCI Method, this took 3 days of continuous  
 1022 computer time, split into 4 parts to use the full processing capacity of the computer.  
 1023  
 1024

1025 Figure 1 shows the results from model 1. The points on the lower left are 50th percentiles and as  
 1026 you move up toward the upper right, there are the 90th, 95th, and 99th percentiles. If the estimates  
 1027 from both models were identical, the points would fall on the diagonal line. A point below the line  
 1028 indicates that EPA’s Modified NCI Method produced a higher estimate and a point above the line  
 1029 indicates that EPA’s Modified NCI Method produced a lower estimate. The differences range from  
 1030 0 to 5%.

1031

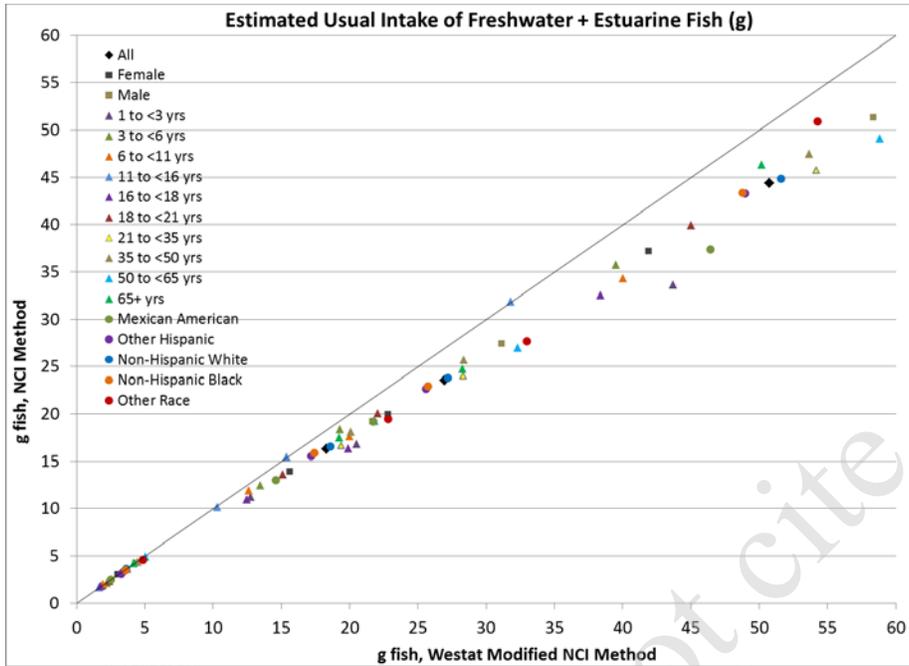


1032  
1033

1034 **Figure 1. Estimated usual intake of total fish (g), comparison of EPA's Modified NCI**  
1035 **Method and NCI Method**

1036

1037 Figure 2 shows the results from the comparison of FW+Estuarine estimates. The EPA estimates are  
1038 about 10% higher than the NCI Method estimates. The comparisons of estimates for Marine fish  
1039 (Figure 3) show no consistent difference between the two methods. Figure 4 shows the difference  
1040 between EPA's Modified NCI Method and NCI Method for Estuarine fish. As with FW+Estuarine,  
1041 EPA's estimates are about 10% higher.

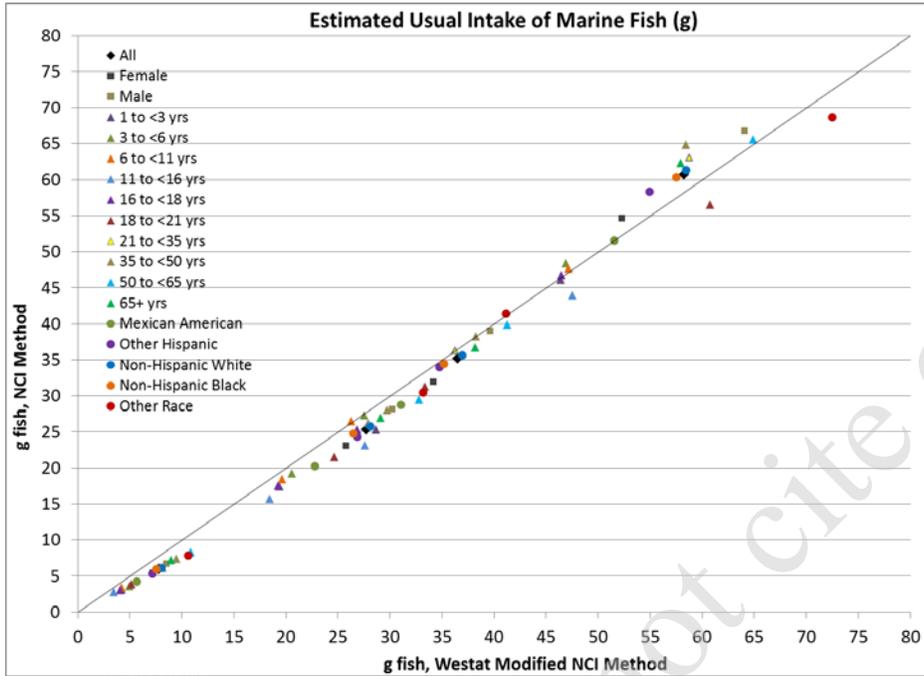


1042  
 1043  
 1044  
 1045

Figure 2. Estimated usual intake of freshwater + estuarine fish (g), comparison of EPA's Modified NCI Method and NCI Method

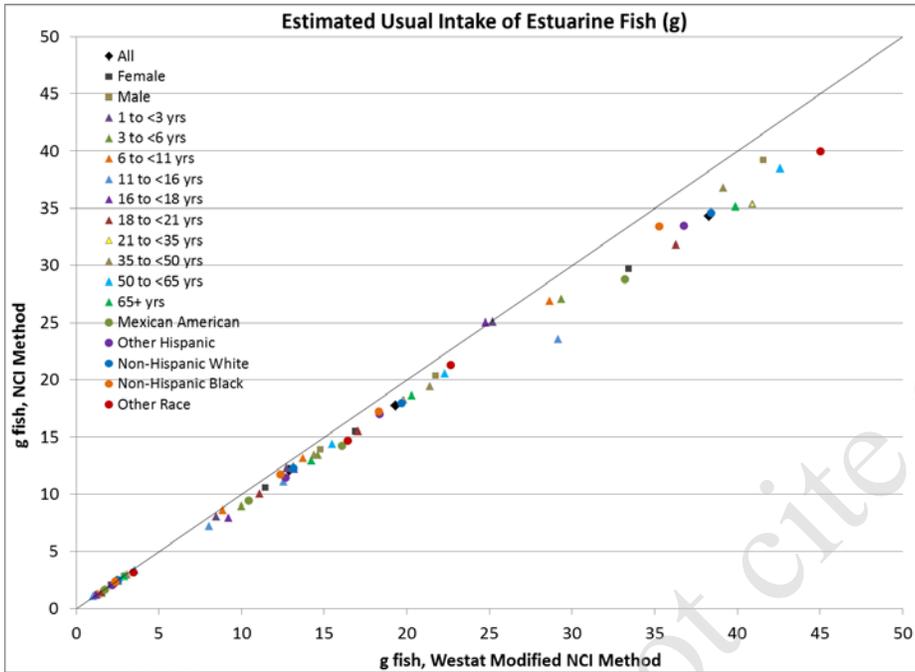
DRAFT DO NOT CITE OR QUOTE

1046



1047  
1048  
1049  
1050

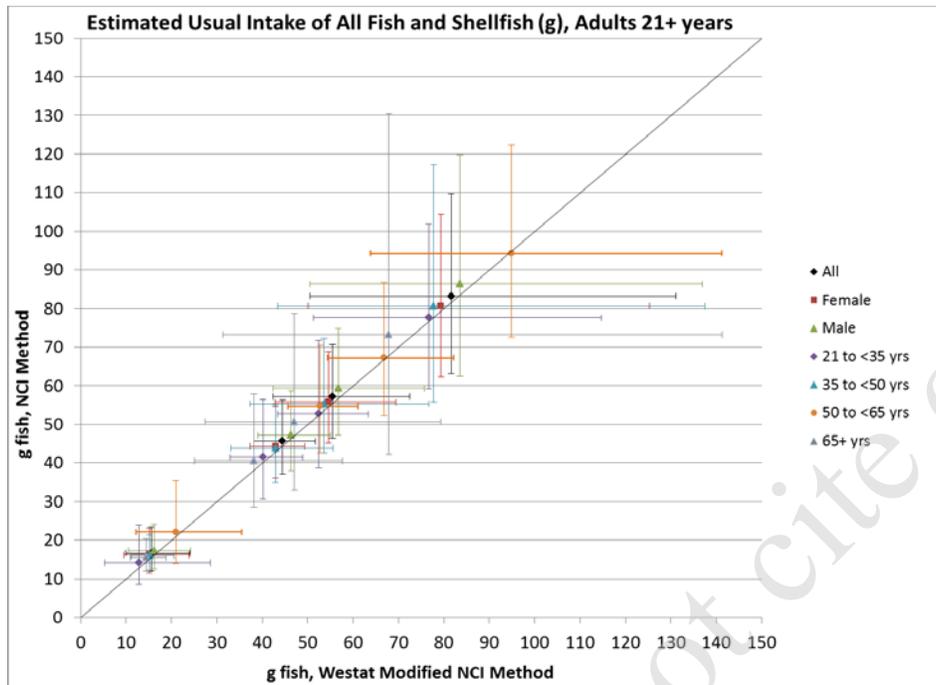
Figure 3. Estimated usual intake of marine fish (g), comparison of EPA's Modified NCI Method and NCI Method



1051  
1052  
1053  
1054  
1055  
1056

**Figure 4. Estimated usual intake of estuarine fish (g), comparison of EPA's Modified NCI Method and NCI Method**

1057 The final plot, Figure 5, shows a subset of the points in Figure 1; however, with 95% CIs. The  
1058 horizontal bars are 95% CIs of EPA's Modified NCI Method estimates and the vertical bars are the  
1059 95% CIs of NCI Method estimates. It shows that even if the estimates were off by greater than 10%  
1060 they would still fall within the 95CIs of each other. In general, the confidence intervals using the  
1061 Modified NCI Method are wider than for the NCI Method.



1062  
1063  
1064  
1065  
1066  
1067

**Figure 5. Estimated usual intake of total fish (g), comparison of EPA’s Modified NCI Method and NCI Method with 95% CIs**

1068 There is a trade-off in the estimation. In order to get results from the NCI Method within a  
1069 reasonable time, we would have had to use far fewer predictors in the modeling and possibly fit an  
1070 uncorrelated model. Given the differences observed between EPA’s Modified NCI Method and the  
1071 NCI Method, we feel that using the Modified NCI method is a better compromise than fitting a  
1072 greatly simplified model using the NCI method.  
1073

## 1074 **5.4 Uncertainty**

### 1075 **5.4.1 Habitat Assignments**

1076 There is some uncertainty associated with the assignment of habitats to reported fish consumption.  
1077 When the raw data are processed by NHANES, fish species reported consumed are combined.  
1078 Generally, these groupings are based on taxonomic groups. This grouping of species complicates the  
1079 assignment of habitat because in some cases, the grouped fish can inhabit different habitats and  
1080 there is no way to determine the exact species the participant consumed. For some species,

1081 apportioning relied on NOAA landings data to assign species of fish groups with many species (e.g.,  
1082 clams) to habitats.

#### 1083 **5.4.2 NCI Method**

1085 The variance or confidence interval is generally larger when using the Modified NCI Method (or the  
1086 full NCI Method) than when directly estimating using the 24-hour recall amounts. This difference is  
1087 due, in part, to uncertainty in estimation of the relative magnitude of the within- and between-  
1088 person variance components used in the model for the NCI method.

1089 Measurements of usual fish consumption are very difficult to obtain. Since usual fish consumption is  
1090 a long-term average, we would need many 24-hour recalls over a long time to approximate what  
1091 “usual intake” is trying to assess, thus we rely on a statistical model and associated assumptions to  
1092 estimate usual intake.

1093  
1094 The model makes certain assumptions, such as, 24-hour recalls provide unbiased estimates of fish  
1095 consumption, all respondents are fish consumers (at least occasionally), and the distribution of fish  
1096 consumption among those reporting consumption in a 24-hour recall is normally distributed for  
1097 some power transformation. The validity of these assumptions can be discussed and, to some extent  
1098 evaluated using data.

1099  
1100 The model also makes some assumptions to simplify the computations, such as variance  
1101 components are normally distributed, additive in the transformed scale, and linearly correlated. It is  
1102 suspected that these assumptions, compared to other model assumptions that might be made, have  
1103 relatively little effect, but it is difficult to assess as alternative assumptions are difficult to compute.

1104  
1105 If the model assumptions are accepted as reasonable, then the question is whether the estimates  
1106 from the model are biased. The estimates are based on maximum likelihood which is generally a  
1107 good computational approach for all sample sizes. However, convergence theory says maximum  
1108 likelihood is best with large sample sizes. If the parameters are biased because the sample size is  
1109 small, the usual consumption estimates may be more likely to be an under-estimate as opposed to an  
1110 over-estimate. At the same time, we have hundreds or thousands of respondents reporting fish  
1111 consumption and we expect the estimates to have relatively little bias compared to the size of the  
1112 confidence intervals.

1113  
1114 In our opinion, the NCI method makes reasonable assumptions and, given the assumptions, has  
1115 adequate sample size to provide estimates with little bias relative to the confidence interval width.  
1116 For estimating usual fish consumption, the NCI method is the best approach that we are aware of.  
1117 At the same time, the estimates may be biased. Future work could include a comparison of usual fish  
1118 consumption from the NCI method to results using other assumptions or calculation methods to  
1119 provide some confidence that the NCI method, even if biased, is the best available or at least is  
1120 reasonable and acceptable for use.

1121  
1122

1123 **5.4.3 Regions**

1124 The regional and coastal estimates are not as precise as for the total US due to smaller sample sizes.  
1125 There are also some questions regarding the weighting. The US Census Regions are used in the  
1126 calculation of the weights. Some of the coastal/noncoastal regions cross these Census Regions.  
1127 However, the weights also adjust for oversampling of some populations and non-response to the  
1128 survey, so we believe it is important to use the weights. While the estimates may be more imprecise  
1129 and there may be some uncertainty due to the weighting, they are still a better representation for  
1130 each coastal/noncoastal area than using the national estimate for all.

1131 **5.4.4 Seasonality**

1133 Fish consumption, especially of recreationally or sport caught fish, is likely to vary by season.  
1134 NHANES collects data throughout the year. However, they generally collect data in northern  
1135 counties in the summer and southern counties in the winter. Thus the estimates may overestimate  
1136 usual intake in the northern regions of the U.S. and underestimate usual intake in the southern  
1137 regions of the U.S. if summer fish consumption is higher than winter fish consumption. There is no  
1138 way to estimate this season effect as there are no NHANES data from northern counties in the  
1139 winter and southern counties in the summer.

1140 **5.4.5 Precision of Estimates**

1142 The 95 percent confidence intervals are presented to show the precision of the estimates. Tighter  
1143 confidence intervals are found on more precise estimates and wider confidence limits are found on  
1144 less precise estimates. Even though an estimate for a subpopulation, say Non-Hispanic Blacks, may  
1145 be imprecise, it is likely to be closer to the true value than is the estimate for the population as a  
1146 whole or the estimate for another subpopulation. As described in the Methods section, the Modified  
1147 NCI Method (and the NCI Method) uses predictors related to fish consumption, such as  
1148 race/ethnicity, to better predict both the probability of consumption and the amount consumed on  
1149 a given consumption day. As a result, the differences between subpopulations generally reflect true  
1150 differences in consumption as opposed to uncertainty in the estimates. The values in the tables are  
1151 the best estimates of the percentiles of fish consumption for the given subpopulations. If one was  
1152 concerned about the uncertainty in the estimate and wanted to be conservative to ensure the level of  
1153 protection desired, a higher percentile of fish consumption could be chosen, say the 95<sup>th</sup> percentile  
1154 instead of the 90<sup>th</sup>, or the upper limit of the 95 percent confidence interval around the percentile of  
1155 choice could be used.

## 6 References

- 1156
- 1157
- 1158 Ahuja JKA, Montville JB, Omolewa-Tomobi G, Heendeniya KY, Martin CL, Steinfeldt LC, Anand  
1159 J, Adler ME, LaComb RP, and Moshfegh AJ. (2012) USDA Food and Nutrient Database  
1160 for Dietary Studies, 5.0. U.S. Department of Agriculture, Agricultural Research Service,  
1161 Food Surveys Research Group, Beltsville, MD.
- 1162
- 1163 Dodd KW, Guenther PM, Freedman LS, Subar AF, Kipnis V, Midthune D, Tooze JA, Krebs-Smith  
1164 SM. (2006) Statistical methods for estimating usual intake of nutrients and foods: a review of  
1165 the theory. *J Am Diet Assoc* 2006 Oct;106(10):1640-50. Review.
- 1166
- 1167 Freedman LS, Guenther PM, Dodd KW, Krebs-Smith SM, Midthune D. (2010) The population  
1168 distribution of ratios of usual intakes of dietary components that are consumed every day  
1169 can be estimated from repeated 24-hour recalls. *J Nutr* 2010 Jan;140(1):111-6.
- 1170
- 1171 Mahaffey, K.R., Clickner, R.P., and Jeffries, R.A. (2009). Adult women's blood mercury  
1172 concentrations vary regionally in the United States: Association with patterns of fish  
1173 consumption (NHANES 1999-2004). *Environmental Health Perspectives*, 117(1), 47-53.
- 1174
- 1175 National Center of Health Statistics. (2013) About the National Health and Nutrition Examination  
1176 Survey. Available at: [http://www.cdc.gov/nchs/nhanes/about\\_nhanes.htm](http://www.cdc.gov/nchs/nhanes/about_nhanes.htm) Accessed June  
1177 26, 2013.
- 1178
- 1179 National Center of Health Statistics. (2009) National Health and Nutrition Examination Survey  
1180 MEC In-Person Dietary Interviewers Procedures Manual. Available at:  
1181 [http://www.cdc.gov/nchs/data/nhanes/nhanes\\_09\\_10/DietaryInterviewers\\_Inperson.pdf](http://www.cdc.gov/nchs/data/nhanes/nhanes_09_10/DietaryInterviewers_Inperson.pdf)  
1182 Accessed June 26, 2013.
- 1183
- 1184 National Center of Health Statistics. Continuous NHANES Web Tutorial. Variance Estimation. Key  
1185 concepts about variance estimation within NHANES. Available at:  
1186 [http://www.cdc.gov/nchs/tutorials/NHANES/SurveyDesign/VarianceEstimation/Info1.h](http://www.cdc.gov/nchs/tutorials/NHANES/SurveyDesign/VarianceEstimation/Info1.htm)  
1187 [tm](http://www.cdc.gov/nchs/tutorials/NHANES/SurveyDesign/VarianceEstimation/Info1.htm)
- 1188
- 1189 National Center for Health Statistics. (2005.) Analytic and Reporting Guidelines: The National  
1190 Health and Nutrition Examination Survey Examination Survey. December 2005. Available  
1191 at: [http://www.cdc.gov/nchs/data/nhanes/nhanes\\_03\\_04/nhanes\\_analytic\\_guidelines](http://www.cdc.gov/nchs/data/nhanes/nhanes_03_04/nhanes_analytic_guidelines_dec_2005.pdf)  
1192 [dec\\_2005.pdf](http://www.cdc.gov/nchs/data/nhanes/nhanes_03_04/nhanes_analytic_guidelines_dec_2005.pdf)
- 1193
- 1194 Tooze JA, Kipnis V, Buckman DW, Carroll RJ, Freedman LS, Guenther PM, Krebs-Smith SM,  
1195 Subar AF, Dodd KW. (2010) A mixed-effects model approach for estimating the  
1196 distribution of usual intake of nutrients: the NCI method. *Stat Med* 2010 Nov  
1197 30;29(27):2857-68.
- 1198
- 1199 Tooze JA, Midthune D, Dodd KW, Freedman LS, Krebs-Smith SM, Subar AF, Guenther PM,  
1200 Carroll RJ, Kipnis V. (2006) A new statistical method for estimating the usual intake of

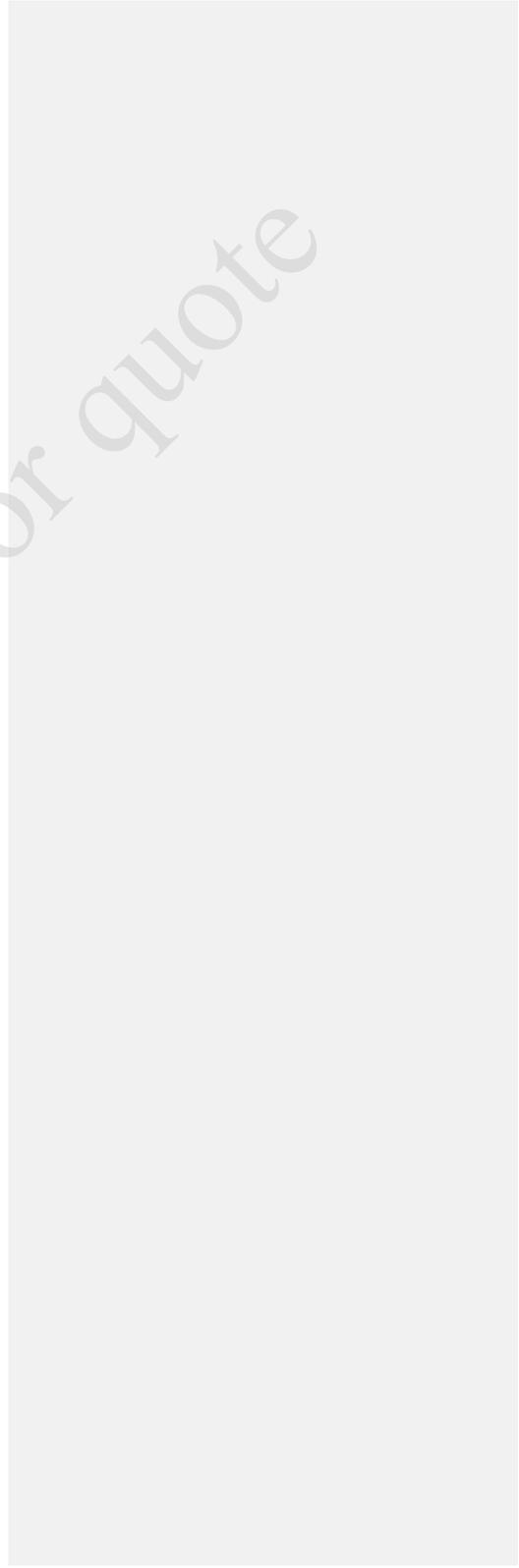
1201 episodically consumed foods with application to their distribution. *J Am Diet Assoc* 2006  
1202 Oct;106(10):1575-87.  
1203  
1204 U.S. Department of Agriculture. (2010) Food and Nutrient Database for Dietary Studies, 4.1.  
1205 Beltsville, MD: Agricultural Research Service, Food Surveys Research Group.  
1206  
1207 U.S. Department of Agriculture. (2008) Food and Nutrient Database for Dietary Studies, 3.0.  
1208 Beltsville, MD: Agricultural Research Service, Food Surveys Research Group.  
1209  
1210 U.S. Department of Agriculture. (2006) Food and Nutrient Database for Dietary Studies, 2.0.  
1211 Beltsville, MD: Agricultural Research Service, Food Surveys Research Group.  
1212  
1213 U.S. Environmental Protection Agency. (2003) Methodology for Deriving Ambient Water Quality  
1214 Criteria for the Protection of Human Health (2000): Technical Support Document Volume  
1215 2: Development of National Bioaccumulation Factors. EPA-822-R-03-030. Washington,  
1216 DC: U.S. Environmental Protection Agency, Office of Science and Technology, Office of  
1217 Water.  
1218  
1219 U.S. Environmental Protection Agency. (2002) Estimated Per Capita Fish Consumption in the  
1220 United States. Washington DC. EPA-821- C- 02-003.  
1221  
1222 U.S. Environmental Protection Agency. (2002) Trophic Level and Exposure Analyses for Selected  
1223 Piscivorous Birds and Mammals. Volume III: Appendices. Washington, DC: U.S.  
1224 Environmental Protection Agency, Office of Science and Technology, Office of Water.  
1225  
1226 U.S. Environmental Protection Agency. (1997) Mercury study report to Congress. 1997. In: An  
1227 Assessment of Exposure to Mercury in the United States, Vol 4. EPA-452/R-97-006.  
1228 Washington, DC: U.S. Environmental Protection Agency, Office of Air Quality Planning  
1229 and Standards and Office of Research and Development.

1230  
1231  
1232  
1233

**Habitat Apportionment Documentation**

**Appendix A**

*DRAFT Do not cite or quote*



NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Abalone	1	0	0	100% Marine
Anchovy	0	0	1	100% Estuarine
Barracuda	1	0	0	100% Marine
Carp	0	1	0	100% Freshwater
Carp				100% freshwater
Bream				≈100% freshwater, but not in US waters; very rarely consumed in US (not in NOAA import data); 0 recorded in 2007-08 NHANES AM/PM file)
Buffalofish				100% freshwater
Sucker				100% freshwater
Catfish	0	0.9	0.1	Apportioned with NOAA landings data.
Blue catfish				80% FW/20%Est, 40% of total catch
Channel catfish				100% FW, 32% of total catch
Flathead catfish				100% FW, 3.6% of total catch
Catfishes and Bullheads				catch-all category, apportioned according to above catch proportions, 24% of total catch
Clam	0.84	0	0.16	Apportioned with NOAA landings data.
Arc/Blood clam				100% Est, <0.5% of total catch
Atlantic jackknife clam				100% Est, <0.5% of total catch
Atlantic surf clam				100% marine, 41.9% of total catch
Butter clam				100% Est, <0.5% of total catch
Manila clam				100% Est, 1% of total catch
Northern quahog clam				100% Est, 4.9% of total catch
Ocean quahog clam				100% marine, 35.4% of total catch
Pacific geoduck clam				100% Est, 3.1% of total catch
Pacific littleneck clam				100% Est, <0.5% of total catch
Pacific razor clam				100% Marine, <0.5% of total catch
Pacific gaper clam				100% Est, <0.5% of total catch
Quahog clam				100% Est, 0.7% of total catch
Softshell clam				100% Est, 4.8% of total catch
Clams or Bivalves				catch-all category, apportioned according to above catch proportions, 7.8% of total catch
Cod	1	0	0	100% Marine
Conch	1	0	0	100% Marine
Crab	0.273	0	0.727	
Atlantic rock crab				100% Marine, 0.9% of total catch
Blue crab				100% Est, 52.2% of total catch
Blue peeler crab				100% Est, 0.5% of total catch
Blue soft crab				100% Est, <0.5% of total catch
Blue crab, soft and peeler				100% Est, <0.5% of total catch
Deepsea golden crab				100% Marine, <0.5% of total catch
Deepsea red crab				100% Marine, <0.5% of total catch

Commented [PG4]: It's "AMPM," not "AM/PM." But AMPM has not been defined. See comment on line 518-519. Use the same terminology here.

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Dungeness crab				100% Est, 18.1% of total catch
Florida stone claws crab				50% Est/50% Marine (2 species), 1.5% of total catch
Green crab				100% Est, <0.5% of total catch
Horseshoe crab				used for bait and fertilizer, not consumed by humans
Jonah crab				100% Marine, 2.7% of total catch
King crab				100% Marine, 6.5% of total catch
Red rock crab				100% Est, <0.5% of total catch
Snow crab				100% Marine, 14.9% of total catch
Southern tanner crab				100% Marine, 0.8% of total catch
Spider crab				100% Marine, <0.5% of total catch
Crabs				catch-all category, apportioned according to above catch proportions, 0.8% of total catch
<b>Crayfish</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>100% Freshwater</b>
<b>Croaker</b>	<b>0.071</b>	<b>0.05</b>	<b>0.879</b>	
Croaker				Apportioned with NOAA landings data. Atlantic Croaker (estuarine) 99.6% of total catch. Pacific croaker (marine) <0.5% of total catch. Weighted* 35% of group.
Angelfish				Aquarium fish, not consumed in US
Butterflyfish				Aquarium fish, not consumed in US
Drumfish				100% Estuarine (estuarine and marine caught near-shore) Weighted 10% of group.
Goatfish/Weke				90% Marine/10% Estuarine (one Hawaiian species is estuarine) Weighted 5% of group.
Kingfish				100% Estuarine (estuarine and marine caught near-shore) Weighted 25% of group.
Sea trout				100% Estuarine (estuarine and marine caught near-shore) Weighted 5% of group.
Freshwater Sheepshead/Goo/Gaspergou				100% Freshwater Weighted 5% of group.
Spadefish				2 popular food species in US, one is estuarine/marine the other is marine. NOAA landings database does not speciate. Assum 50% estuarine and 50% Marine. Weighted 5% of group.
Spot				100% Estuarine (estuarine and marine caught near-shore) Weighted 5% of group.
Surgeonfish				Aquarium fish, not consumed in US
Weakfish				Marine and estuarine species. Weighted 5% of group.
<b>Eel</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>100% Freshwater</b>
<b>Flatfish</b>	<b>0.87</b>	<b>0</b>	<b>0.13</b>	<b>Apportioned with NOAA landings data.</b>
FLOUNDER, ARROWTOOTH				100% Marine, 15.8% of total catch
FLOUNDER, FOURSPOT				100% Marine, <0.5% of total catch
FLOUNDER, PACIFIC, SANDDAB				100% Marine, <0.5% of total catch
FLOUNDER, SOUTHERN				100% Estuarine, <0.5% of total catch
FLOUNDER, STARRY				100% Estuarine, <0.5% of total catch
FLOUNDER, SUMMER				100% Estuarine, 1.9% of total catch
FLOUNDER, WINDOWPANE				100% Estuarine, <0.5% of total catch
FLOUNDER, WINTER				100% Estuarine, 0.7% of total catch
FLOUNDER, WITCH				100% Marine, <0.5% of total catch
FLOUNDER, YELLOWTAIL				100% Marine, 0.5% of total catch

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
FLOUNDER, ATLANTIC, PLAICE				100% Marine, 0.5% of total catch
FLOUNDER, PACIFIC, SANDDAB				100% Marine, <0.5% of total catch
FLOUNDERS, RIGHTEYE				50% Marine/50% Estuarine, <0.5% of total catch
SOLE, BUTTER				100% Marine, <0.5% of total catch
SOLE, CURLFIN				100% Marine, <0.5% of total catch
SOLE, DOVER				100% Marine, <0.5% of total catch
SOLE, ENGLISH				100% Estuarine, <0.5% of total catch
SOLE, FANTAIL				100% Marine, <0.5% of total catch
SOLE, FLATHEAD				100% Estuarine, 7.5% of total catch
SOLE, PETRALE				100% Marine, <0.5% of total catch
SOLE, REX				100% Marine, 1.9% of total catch
SOLE, ROCK				100% Marine, 18.1% of total catch
SOLE, SAND				100% Estuarine, <0.5% of total catch
SOLE, YELLOWFIN				100% Marine, 37.3% of total catch
HALIBUT, ATLANTIC				100% Marine, <0.5% of total catch
HALIBUT, CALIFORNIA				100% Estuarine, <0.5% of total catch
HALIBUT, GREENLAND				100% Marine, 1.4% of total catch
HALIBUT, PACIFIC				75% Marine (adults)/25% Estuarine (young), 9.2% of total catch
<b>Flounder</b>	<b>0.85</b>	<b>0</b>	<b>0.15</b>	<b>Apportioned with NOAA landings data.</b>
FLOUNDER, ARROWTOOTH				100% Marine, 78.5% of total catch
FLOUNDER, FOURSPOOT				100% Marine, <0.5% of total catch
FLOUNDER, PACIFIC, SANDDAB				100% Marine, <0.5% of total catch
FLOUNDER, SOUTHERN				100% Estuarine, 1.7% of total catch
FLOUNDER, STARRY				100% Estuarine, <0.5% of total catch
FLOUNDER, SUMMER				100% Estuarine, 9.4% of total catch
FLOUNDER, WINDOWPANE				100% Estuarine, <0.5% of total catch
FLOUNDER, WINTER				100% Estuarine, 0.3% of total catch
FLOUNDER, WITCH				100% Marine, 1.5% of total catch
FLOUNDER, YELLOWTAIL				100% Marine, 2.5% of total catch
FLOUNDER, ATLANTIC, PLAICE				100% Marine, 2.4% of total catch
FLOUNDER, PACIFIC, SANDDAB				100% Marine, <0.5% of total catch
FLOUNDERS, RIGHTEYE				50% Marine/50% Estuarine, <0.5% of total catch
<b>Sole</b>	<b>0.89</b>	<b>0</b>	<b>0.11</b>	<b>Apportioned with NOAA landings data.</b>
SOLE, BUTTER				100% Marine, <0.5% of total catch
SOLE, CURLFIN				100% Marine, <0.5% of total catch
SOLE, DOVER				100% Marine, 5.6% of total catch
SOLE, ENGLISH				100% Estuarine, <0.5% of total catch
SOLE, FANTAIL				100% Marine, <0.5% of total catch
SOLE, FLATHEAD				100% Estuarine, 10.8% of total catch
SOLE, PETRALE				100% Marine, 0.6% of total catch

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
SOLE, REX				100% Marine, 2.7% of total catch
SOLE, ROCK				100% Marine, 26.1% of total catch
SOLE, SAND				100% Estuarine, <0.5% of total catch
SOLE, YELLOWFIN				100% Marine, 54.0% of total catch
<b>Halibut</b>	<b>0.78</b>	<b>0</b>	<b>0.22</b>	<b>Apportioned with NOAA landings data.</b>
HALIBUT, ATLANTIC				100% Marine, <0.5% of total catch
HALIBUT, CALIFORNIA				100% Estuarine, 0.9% of total catch
HALIBUT, GREENLAND				100% Marine, 13.0% of total catch
HALIBUT, PACIFIC				75% Marine (adults)/25% Estuarine (young), 86.0% of total catch
<b>Haddock</b>	<b>0.945</b>	<b>0.05</b>	<b>0.006</b>	
Haddock				100% Marine. Weighted 50% of group.
Blowfish				Not consumed in US
Burbot				100% Freshwater. Weighted 5% of group.
Cusk				100% Marine. Weighted 5% of group.
Hake				9 species: 8 are marine (89%) and 1 is estuarine (11%). Weighted 5% of group.
Ling				100% Marine. Weighted 5% of group.
Monkfish				100% Marine. Weighted 5% of group.
Scrod				100% Marine. Weighted 25% of group.
<b>Herring</b>	<b>0.304</b>	<b>0.01</b>	<b>0.686</b>	
Herring				Apportioned with NOAA landings data. (0.6%M/0.3\$FW/99.1%Est) Weighted 60% of group.
HERRING, ATLANTIC				100% Estuarine, 64.3% of total catch
HERRING, ATLANTIC THREAD				100% Marine, <0.5% of total catch
HERRING, BLUEBACK				100% Estuarine, <0.5% of total catch
HERRING, LAKE OR CISCO				100% Freshwater, <0.5% of total catch
HERRING, PACIFIC				100% Estuarine, 34.6% of total catch
HERRING, ROUND				100% Marine, <0.5% of total catch
HERRINGS				catch-all category, apportioned according to above catch proportions, <0.5% of total catch
Milkfish				100% Marine. Weighted 30% of group.
Shad				6 main species. 92% Estuarine/8% Freshwater (Alewife if 50% FW). Weighted 10% of group.
<b>Jellyfish</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Lobster</b>	<b>0.044</b>	<b>0</b>	<b>0.956</b>	<b>Apportioned with NOAA landings data.</b>
LOBSTER, AMERICAN				100% Estuarine, 95.0% of total catch
LOBSTER, BANDED SPINY				100% Marine, <0.5% of total catch
LOBSTER, CALIFORNIA SPINY				100% Estuarine, 0.6% of total catch
LOBSTER, CARIBBEAN SPINY				100% Marine, 4.4% of total catch
LOBSTER, SLIPPER				100% Marine, <0.5% of total catch
<b>Mackerel</b>	<b>0.411</b>	<b>0</b>	<b>0.589</b>	

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Mackerel				Apportioned with NOAA landings data. Weighted 90% of group.
				MACKEREL, ATLANTIC 100% Estuarine, 63.4% of total catch
				MACKEREL, CHUB 100% Marine, 13.8% of total catch
				MACKEREL, FRIGATE 100% Marine, <0.5% of total catch
				MACKEREL, KING 100% Marine, 1.7% of total catch
				MACKEREL, KING AND CERO 100% Marine, 11.1% of total catch
				MACKEREL, SPANISH 100% Marine, 10.0% of total catch
Garfish				100% Estuarine. Weighted 2% of group.
Ono/Wahoo				100% Marine. Weighted 4% of group.
Needlefish				56% Marine/44% Estuarine (9 species, 5 marine and 4 estuarine). Weighted 4% of group.
<b>Mullet</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Mussel</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Rockfish/Ocean Perch</b>	<b>0.925</b>	<b>0</b>	<b>0.075</b>	
				Ocean Perch 100% Marine. Weighted 15% of group.
				Bocaccio 100% Estuarine. Weighted 5% of group.
				Menpachi 100% Marine. Weighted 5% of group.
				Orange roughy 100% Marine. Weighted 35% of group.
				Redfish 100% Marine. Weighted 15% of group.
				Rockfish 70 species, approximately half are found in estuaries (in addition to marine habitats) 50% Marine/50% Estuarine. Weighted 5% of group.
<b>Octopus</b>	<b>0.62</b>	<b>0</b>	<b>0.38</b>	<b>8 species commonly consumed in US. 3 are 100% estuarine and 5 are 100% Marine. NOAA database does not speciate.</b>
<b>Oyster</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Perch</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>100% Freshwater</b>
				Perch 100% Freshwater
				Bluegill 100% Freshwater
				Crappie 100% Freshwater
				Sunfish 100% Freshwater
				Bass 100% Freshwater
				Walleye 100% Freshwater
<b>Pike</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>100% Freshwater</b>
				Pike 100% Freshwater
				Muskellunge 100% Freshwater
				Pickrel 100% Freshwater
<b>Pompano</b>	<b>0.661</b>	<b>0.002</b>	<b>0.338</b>	
				Florida (100% Est) is 97% of total catch, African (100% Marine) is 3% of total catch. Weighted 3% of group.
				Pompano

Deleted: nto

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Akule				100% Marine. Weighted 3% of group.
Blackfish				2 main species: 1 is marine, near-coast (100% Estuarine) and the other is mainly estuarine and partially freshwater. 95% Estuarine/5% FW. Weighted 3% of group.
Bluefish				100% Estuarine. Weighted 3% of group.
Butterfish				100% Estuarine. Weighted 3% of group.
Dolphinfish				100% Marine. Weighted 10% of group.
Jack				100% Marine. Weighted 3% of group.
Mahimahi				100% Marine. Weighted 35% of group.
Papio				100% Marine. Weighted 3% of group.
Parrot fish				100% Marine. Weighted 3% of group.
Sablefish				100% Marine. Weighted 3% of group.
Scad				100% Marine. Weighted 3% of group.
Tilefish				100% Marine. Weighted 3% of group.
Ulua				100% Estuarine. Weighted 3% of group.
Yellowtail				100% Estuarine. Weighted 19% of group.
<b>Porgy</b>	<b>0.981</b>	<b>0</b>	<b>0.019</b>	<b>Apportioned with NOAA landings data.</b>
PORGY, JOLTHEAD				100% Marine, <0.5% of total catch
PORGY, KNOBBED				100% Marine, <0.5% of total catch
PORGY, RED				100% Marine, 1.7% of total catch
SCUP				100% Marine, 43.8% of total catch
SCUPS OR PORGIES				100% Marine, 1.7% of total catch
SHEEPSHEAD				100% Marine, 8.2% of total catch
SNAPPER, BLACK				100% Marine, <0.5% of total catch
SNAPPER, BLACKFIN				100% Marine, <0.5% of total catch
SNAPPER, CUBERA				100% Estuarine, <0.5% of total catch
SNAPPER, DOG				100% Estuarine, <0.5% of total catch
SNAPPER, GRAY				100% Estuarine, 1.3% of total catch
SNAPPER, LANE				100% Marine, <0.5% of total catch
SNAPPER, MUTTON				100% Estuarine, 0.6% of total catch
SNAPPER, QUEEN				100% Marine, <0.5% of total catch
SNAPPER, RED				100% Marine, 14.3% of total catch
SNAPPER, SILK				100% Marine, <0.5% of total catch
SNAPPER, VERMILION				100% Marine, 17.9% of total catch
SNAPPER, YELLOWTAIL				100% Marine, 8.6% of total catch
SNAPPERS				catch-all category for snapper, apportioned according to above catch proportions, 1.2% of total catch
<b>Roe/Caviar</b>	<b>0.085</b>	<b>0.235</b>	<b>0.68</b>	
Roe				10 species commonly used. Salmon, Alewife, Paddlefish, Bowfin, Pike, Freshwater Whitefish, Shad = 100% FW. Mullet = 100% Est. Capelin, Cod = 100% Marine. Total 70%FW/10%Est/20%Marine. Weighted 40% of group.
Caviar				Sturgeon eggs. 100% Estuarine. Weighted 60% of group.

Deleted: caost

Deleted: Estuarine

Deleted: Strugeon

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
<b>Salmon</b>	<b>0.96</b>	<b>0.005</b>	<b>0.035</b>	
Salmon				Partially apportioned with NOAA data. Weighted 99% of group.
Kokanee				Landlocked sockeye salmon, 100% Freshwater. Catch is <1% of total salmon catch.
SALMON, CHINOOK				100% Marine. 1.5% of total catch.
SALMON, CHUM				Some populations spend many months in estuaries. 85% Marine/15% Estuarine. 15.3% of total catch
SALMON, COHO				Some populations spend many months in estuaries. 85% Marine/15% Estuarine. 4.4% of total catch
SALMON, PINK				100% Marine. 44.6% of total catch.
SALMON, SOCKEYE				100% Marine. 34.1% of total catch.
Saltwater trout				100% Estuarine. Weighted 1% of group.
<b>Sardine</b>	<b>0.9</b>	<b>0</b>	<b>0.1</b>	
Pacific sardine				90% of catch, 100% marine
Round sardinella				10% of catch, 100% estuarine
<b>Scallop</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Sea Bass</b>	<b>0.925</b>	<b>0.025</b>	<b>0.05</b>	
Sea bass				5 species commonly consumed in US. 100% Marine. Weighted 85% of group.
Grouper				150 species, some marine only, some estuarine and marine. 50% Marine/50% Estuarine. Weighted 10% of group.
Striped Bass				50% Estuarine/50% Freshwater. Weighted 10% of group.
Wreckfish				100% Marine. Weighted 10% of group.
<b>Shark</b>	<b>0.866</b>	<b>0</b>	<b>0.134</b>	
Shark				8 species consumed. 7 marine, 1 estuarine/marine. 87.5% Marine/12.5% Estuarine. Weighted 90% of group.
Dogfish				16 species consumed. 14 marine, 2 estuarine/marine. 87.5% Marine/12.5% Estuarine. Weighted 5% of group.
Grayfish				5 species consumed. 3 marine, 2 estuarine/marine. 60% Marine/40% Estuarine. Weighted 5% of group.
<b>Shrimp</b>	<b>0.176</b>	<b>0</b>	<b>0.824</b>	<b>Apportioned with NOAA landings data.</b>
SHRIMP, BROWN				100% Estuarine, 36.4% of total catch.
SHRIMP, MARINE, OTHER				100% Marine, 2.6% of total catch.
SHRIMP, OCEAN				100% Marine, 13.4% of total catch.
SHRIMP, PACIFIC ROCK				100% Marine, <0.5% of total catch.
SHRIMP, PENAEID				100% Estuarine, <0.5% of total catch.
SHRIMP, PINK				100% Estuarine, 3.2% of total catch.
SHRIMP, ROCK				100% Marine, 1.1% of total catch.
SHRIMP, ROYAL RED				100% Marine, <0.5% of total catch.

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
SHRIMP, SEABOB				100% Estuarine, <0.5% of total catch.
SHRIMP, SPOT				100% Estuarine, <0.5% of total catch.
SHRIMP, WHITE				100% Estuarine, 40.2% of total catch.
SHRIMP,PANDALID				100% Estuarine, 0.9% of total catch.
SHRIMP, FW				100% Freshwater, <0.001% of total catch
SHRIMP, DENDROBRANCHIATA				catch-all category, apportioned according to above catch proportions, 0.9% of total catch
<b>Snail</b>	<b>0.45</b>	<b>0.1</b>	<b>0.45</b>	<b>Species found in all environments.</b>
Limpet				80% marine species, 20% freshwater species.
Conch				Half species 100% Marine, half 100% marine but harvested near coast.
Moon snail				Half species 100% Marine, half 100% marine but harvested near coast.
<b>Squid</b>	<b>0.8</b>	<b>0</b>	<b>0.2</b>	
Squid				5 species commonly caught. 4 marine and 1 estuarine.
Cuttlefish				Marine. Not found in US waters.
<b>Sturgeon</b>	<b>0</b>	<b>0.42</b>	<b>0.58</b>	<b>6 species commonly caught. 1 FW/Est, 2 FW, 3 Est</b>
<b>Swordfish</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>100% Marine</b>
Swordfish				100% Marine
Marlin				100% Marine
<b>Tilapia</b>	<b>0</b>	<b>0.5</b>	<b>0.5</b>	<b>Invasive in US; established populations in some freshwater lakes as well as estuaries</b>
<b>Trout</b>	<b>0.106</b>	<b>0.869</b>	<b>0.025</b>	
Trout				100% Freshwater, weighted 70% of group
Chub				100% Freshwater, weighted 5% of group
Cisco				4 species: 1 FW, 1 Marine/Est, 1 Est, 1 FW/Est (37.5% FW, 50% Est, 12.5% marine, weighted 5% of group)
Lake Herring				100% Freshwater, weighted 5% of group
Steelhead				100% Marine, weighted 10% of group
Freshwater Whitefish				100% Freshwater, weighted 5% of group
<b>Whitefish</b>	<b>0.877</b>	<b>0</b>	<b>0.123</b>	<b>Based on apportionment of cod, whiting, haddock, hake, pollock, sole, flounder, and halibut</b>
<b>Tuna, canned</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>100% Marine</b>
<b>Tuna, fresh</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>100% Marine</b>
<b>Whelk</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100% Estuarine</b>
<b>Whiting</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>100% Marine</b>
<b>Fish not specified</b>	<b>0.52</b>	<b>0.16</b>	<b>0.32</b>	<b>Apportioned according to overall percentages of all specified species</b>

Deleted: freshwater

Deleted: .

NHANES fish group and comprising species	Proportion			Details*
	Marine	Freshwater	Estuarine	
Breaded Fish Products	1	0	0	100% Marine (Pollock/Cod)

\*Weighted percentages come from number of reports in 2007-08 NHANES AM/PM file. Unless a fish is not known to be consumed in the US, no fish were assigned a 0 weight as they could be reported consumed in other NHANES releases. We only had access to the 2007-08 AM/PM file.

Deleted:

|  
1240

DRAFT Do not cite or quote

1242

1243

1244

1245

**Fish-Containing Food Codes**

**Appendix B**

DRAFT Do not cite or quote

Table B-1. Fish-containing food codes in NHANES data

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
14620120	27	0.28	Shrimp dip, cream cheese base		0.262	CANNED	25.0%	0.349	0.062	0.000	0.288	0.349	0.000	0.175	0.175	0.000
26100100	1	0.01	Fish, NS as to type, raw		1.000	RAW	0.0%	1.000	0.520	0.160	0.320	0.000	1.000	0.000	0.500	0.500
26100110	74	0.77	Fish, NS as to type, cooked, NS as to cooking method		0.992	COOKED DRY HEAT	25.0%	1.322	0.687	0.212	0.423	0.000	1.322	0.000	0.661	0.661
26100120	130	1.36	Fish, NS as to type, baked or broiled		0.946	COOKED DRY HEAT	25.0%	1.262	0.656	0.202	0.404	0.000	1.262	0.000	0.631	0.631
26100130	21	0.22	Fish, NS as to type, breaded or battered, baked		0.771	RAW	0.0%	0.771	0.400	0.123	0.247	0.000	0.771	0.000	0.385	0.385
26100140	83	0.87	Fish, NS as to type, floured or breaded, fried		0.832	RAW	0.0%	0.832	0.432	0.133	0.266	0.000	0.832	0.000	0.416	0.416
26100150	58	0.61	Fish, NS as to type, battered, fried		0.752	RAW	0.0%	0.752	0.391	0.120	0.241	0.000	0.752	0.000	0.376	0.376
26100160	27	0.28	Fish, NS as to type, steamed		0.993	RAW	0.0%	0.993	0.516	0.159	0.318	0.000	0.993	0.000	0.497	0.497
26100170	6	0.06	Fish, NS as to type, dried		1.000	SALTED	30.0%	1.429	0.742	0.229	0.457	0.000	1.429	0.000	0.714	0.714
26100190	5	0.05	Fish, NS as to type, smoked		1.000	SMOKED CISCO	30.2%	1.433	0.745	0.229	0.459	0.000	1.433	0.000	0.717	0.717
26100210	21	0.22	Fish stick, patty, or fillet, NS as to type, cooked, NS as to cooking method		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299
26100220	34	0.36	Fish stick, patty, or fillet, NS as to type, baked or broiled		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26100230	300	3.14	Fish stick, patty, or fillet, NS as to type, breaded or battered, baked		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299
26100240	143	1.5	Fish stick, patty, or fillet, NS as to type, floured or breaded, fried		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299
26100250	55	0.58	Fish stick, patty, or fillet, NS as to type, battered, fried		0.448	PREHEATED	25.0%	0.598	0.598	0.000	0.000	0.000	0.598	0.000	0.299	0.299
26101110	9	0.09	Anchovy, cooked, NS as to cooking method		1.000	CANNED	25.0%	1.333	0.000	0.000	1.333	0.000	1.333	0.667	0.667	0.000
26105120	6	0.06	Carp, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.933	0.000	0.000	0.933	0.000	0.933	0.000
26105140	10	0.1	Carp, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.835	0.000	0.000	0.835	0.000	0.835	0.000
26107110	4	0.04	Catfish, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.000	0.752	0.084	0.000	0.835	0.000	0.418	0.418
26107120	72	0.75	Catfish, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.840	0.093	0.000	0.933	0.000	0.467	0.467
26107130	11	0.12	Catfish, breaded or battered, baked		0.775	RAW	0.0%	0.775	0.000	0.697	0.077	0.000	0.775	0.000	0.387	0.387
26107140	122	1.28	Catfish, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.752	0.084	0.000	0.835	0.000	0.418	0.418
26107150	80	0.84	Catfish, battered, fried		0.752	RAW	0.0%	0.752	0.000	0.677	0.075	0.000	0.752	0.000	0.376	0.376
26107160	11	0.12	Catfish, steamed or poached		0.993	RAW	0.0%	0.993	0.000	0.894	0.099	0.000	0.993	0.000	0.497	0.497
26109110	4	0.04	Cod, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.418	0.418
26109120	58	0.61	Cod, baked or broiled		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.467	0.467
26109130	16	0.17	Cod, breaded or battered, baked		0.775	RAW	0.0%	0.775	0.775	0.000	0.000	0.000	0.775	0.000	0.387	0.387

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26109140	31	0.32	Cod, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.418	0.418
26109150	44	0.46	Cod, battered, fried		0.752	RAW	0.0%	0.752	0.752	0.000	0.000	0.000	0.752	0.000	0.376	0.376
26109160	8	0.08	Cod, steamed or poached		0.993	RAW	0.0%	0.993	0.993	0.000	0.000	0.000	0.993	0.000	0.497	0.497
26109170	3	0.03	Cod, dried, salted		1.000	SALTED	30.0%	1.429	1.429	0.000	0.000	0.000	1.429	0.000	0.714	0.714
26109180	1	0.01	Cod, dried, salted, salt removed in water		0.285	SALTED	30.0%	0.407	0.407	0.000	0.000	0.000	0.407	0.000	0.204	0.204
26111120	17	0.18	Croaker, baked or broiled		0.933	RAW	0.0%	0.933	0.067	0.047	0.820	0.000	0.933	0.000	0.467	0.467
26111130	2	0.02	Croaker, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.055	0.039	0.680	0.000	0.774	0.000	0.387	0.387
26111140	16	0.17	Croaker, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.060	0.042	0.734	0.000	0.835	0.000	0.418	0.418
26111160	4	0.04	Croaker, steamed or poached		0.993	RAW	0.0%	0.993	0.071	0.050	0.873	0.000	0.993	0.000	0.497	0.497
26113110	4	0.04	Eel, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.000	0.933	0.000	0.000	0.933	0.000	0.000	0.933
26113160	1	0.01	Eel, steamed or poached		0.993	RAW	0.0%	0.993	0.000	0.993	0.000	0.000	0.993	0.000	0.000	0.993
26115110	3	0.03	Flounder, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.812	0.000	0.121	0.000	0.933	0.000	0.467	0.467
26115120	60	0.63	Flounder, baked or broiled		0.933	RAW	0.0%	0.933	0.812	0.000	0.121	0.000	0.933	0.000	0.467	0.467
26115130	12	0.13	Flounder, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.674	0.000	0.101	0.000	0.774	0.000	0.387	0.387
26115140	45	0.47	Flounder, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.727	0.000	0.109	0.000	0.835	0.000	0.418	0.418
26115150	32	0.34	Flounder, battered, fried		0.752	RAW	0.0%	0.752	0.654	0.000	0.098	0.000	0.752	0.000	0.376	0.376

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26115160	3	0.03	Flounder, steamed or poached		0.993	RAW	0.0%	0.993	0.864	0.000	0.129	0.000	0.993	0.000	0.497	0.497
26117110	1	0.01	Haddock, cooked, NS as to cooking method		0.932	RAW	0.0%	0.932	0.881	0.047	0.005	0.000	0.932	0.000	0.466	0.466
26117120	27	0.28	Haddock, baked or broiled		0.932	RAW	0.0%	0.932	0.881	0.047	0.005	0.000	0.932	0.000	0.466	0.466
26117130	13	0.14	Haddock, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.731	0.039	0.004	0.000	0.774	0.000	0.387	0.387
26117140	15	0.16	Haddock, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.789	0.042	0.005	0.000	0.835	0.000	0.418	0.418
26117150	8	0.08	Haddock, battered, fried		0.752	RAW	0.0%	0.752	0.710	0.038	0.004	0.000	0.752	0.000	0.376	0.376
26117160	4	0.04	Haddock, steamed or poached		0.993	RAW	0.0%	0.993	0.938	0.050	0.005	0.000	0.993	0.000	0.497	0.497
26119110	4	0.04	Herring, cooked, NS as to cooking method		1.000	PICKLED	14.8%	1.174	0.357	0.012	0.805	0.000	1.174	0.000	1.174	0.000
26119120	13	0.14	Herring, baked or broiled		0.933	RAW	0.0%	0.933	0.284	0.009	0.640	0.000	0.933	0.000	0.933	0.000
26119140	1	0.01	Herring, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.254	0.008	0.573	0.000	0.835	0.000	0.835	0.000
26119160	1	0.01	Herring, pickled, in cream sauce		0.798	PICKLED	14.8%	0.936	0.285	0.009	0.642	0.000	0.936	0.000	0.936	0.000
26119180	8	0.08	Herring, pickled		1.000	PICKLED	14.8%	1.174	0.357	0.012	0.805	0.000	1.174	0.000	1.174	0.000
26119190	4	0.04	Herring, smoked, kippered		1.000	KIPPERED	10.3%	1.115	0.339	0.011	0.765	0.000	1.115	0.000	1.115	0.000
26121100	1	0.01	Mackerel, raw		1.000	RAW	0.0%	1.000	0.411	0.000	0.589	0.000	1.000	0.000	0.500	0.500
26121110	1	0.01	Mackerel, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.384	0.000	0.550	0.000	0.933	0.000	0.467	0.467
26121120	7	0.07	Mackerel, baked or broiled		0.933	RAW	0.0%	0.933	0.384	0.000	0.550	0.000	0.933	0.000	0.467	0.467
26121140	1	0.01	Mackerel, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.343	0.000	0.492	0.000	0.835	0.000	0.418	0.418

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26121180	4	0.04	Mackerel, canned		1.000	CANNED	25.0%	1.333	0.548	0.000	0.785	0.000	1.333	0.000	0.667	0.667
26123140	1	0.01	Mullet, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.000	0.835	0.000	0.835	0.835	0.000	0.000
26125120	28	0.29	Ocean perch, baked or broiled		0.933	RAW	0.0%	0.933	0.863	0.000	0.070	0.000	0.933	0.000	0.000	0.933
26125140	15	0.16	Ocean perch, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.773	0.000	0.063	0.000	0.835	0.000	0.000	0.835
26125150	6	0.06	Ocean perch, battered, fried		0.752	RAW	0.0%	0.752	0.695	0.000	0.056	0.000	0.752	0.000	0.000	0.752
26125160	2	0.02	Ocean perch, steamed or poached		0.993	RAW	0.0%	0.993	0.919	0.000	0.075	0.000	0.993	0.000	0.000	0.993
26127110	3	0.03	Perch, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.000	0.835	0.000	0.000	0.835	0.000	0.000	0.835
26127120	38	0.4	Perch, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.933	0.000	0.000	0.933	0.000	0.000	0.933
26127130	10	0.1	Perch, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.000	0.774	0.000	0.000	0.774	0.000	0.000	0.774
26127140	57	0.6	Perch, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.835	0.000	0.000	0.835	0.000	0.000	0.835
26127150	31	0.32	Perch, battered, fried		0.752	RAW	0.0%	0.752	0.000	0.752	0.000	0.000	0.752	0.000	0.000	0.752
26127160	5	0.05	Perch, steamed or poached		0.993	RAW	0.0%	0.993	0.000	0.993	0.000	0.000	0.993	0.000	0.000	0.993
26129120	1	0.01	Pike, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.933	0.000	0.000	0.933	0.000	0.000	0.933
26129140	2	0.02	Pike, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.835	0.000	0.000	0.835	0.000	0.000	0.835
26131100	1	0.01	Pompano, raw		1.000	RAW	0.0%	1.000	0.661	0.002	0.338	0.000	1.000	0.000	0.000	1.000
26131110	1	0.01	Pompano, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.617	0.001	0.315	0.000	0.933	0.000	0.000	0.933
26131120	28	0.29	Pompano, baked or broiled		0.933	RAW	0.0%	0.933	0.617	0.001	0.315	0.000	0.933	0.000	0.000	0.933

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26131140	6	0.06	Pompano, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.552	0.001	0.282	0.000	0.835	0.000	0.000	0.835
26131150	1	0.01	Pompano, battered, fried		0.752	RAW	0.0%	0.752	0.497	0.001	0.254	0.000	0.752	0.000	0.000	0.752
26131160	11	0.12	Pompano, steamed or poached		0.993	RAW	0.0%	0.993	0.656	0.001	0.336	0.000	0.993	0.000	0.000	0.993
26133110	1	0.01	Porgy, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.819	0.000	0.016	0.000	0.835	0.000	0.000	0.835
26133120	13	0.14	Porgy, baked or broiled		0.933	RAW	0.0%	0.933	0.916	0.000	0.018	0.000	0.933	0.000	0.000	0.933
26133140	6	0.06	Porgy, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.819	0.000	0.016	0.000	0.835	0.000	0.000	0.835
26133150	3	0.03	Porgy, battered, fried		0.637	RAW	0.0%	0.637	0.625	0.000	0.012	0.000	0.637	0.000	0.000	0.637
26133160	5	0.05	Porgy, steamed or poached		0.993	RAW	0.0%	0.993	0.975	0.000	0.019	0.000	0.993	0.000	0.000	0.993
26137100	1	0.01	Salmon, raw		1.000	RAW	0.0%	1.000	0.960	0.005	0.035	0.000	1.000	0.000	0.000	1.000
26137110	47	0.49	Salmon, cooked, NS as to cooking method		0.993	COOKED DRY HEAT	25.0%	1.323	1.270	0.007	0.046	0.000	1.323	0.000	0.000	1.323
26137120	435	4.55	Salmon, baked or broiled		0.933	RAW	0.0%	0.933	0.896	0.005	0.033	0.000	0.933	0.000	0.000	0.933
26137140	24	0.25	Salmon, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.802	0.004	0.029	0.000	0.835	0.000	0.000	0.835
26137150	15	0.16	Salmon, battered, fried		0.752	RAW	0.0%	0.752	0.722	0.004	0.026	0.000	0.752	0.000	0.000	0.752
26137160	31	0.32	Salmon, steamed or poached		0.993	RAW	0.0%	0.993	0.954	0.005	0.035	0.000	0.993	0.000	0.000	0.993
26137180	32	0.34	Salmon, canned		1.000	CANNED	25.0%	1.333	1.280	0.007	0.047	0.000	1.333	0.000	0.000	1.333
26137190	53	0.55	Salmon, smoked		1.000	SMOKED SALMON	5.0%	1.053	1.011	0.005	0.037	0.000	1.053	0.000	0.000	1.053
26139110	18	0.19	Sardines, cooked		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000
26139170	1	0.01	Sardines, dried		1.000	DRIED	80.0%	5.003	4.502	0.000	0.500	0.000	5.003	0.000	5.003	0.000
26139180	36	0.38	Sardines, canned in oil		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26139190	13	0.14	Sardines, skinless, boneless, packed in water		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000
26141110	1	0.01	Sea bass, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.863	0.023	0.047	0.000	0.933	0.000	0.000	0.933
26141120	24	0.25	Sea bass, baked or broiled		0.933	RAW	0.0%	0.933	0.863	0.023	0.047	0.000	0.933	0.000	0.000	0.933
26141130	1	0.01	Sea bass, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.716	0.019	0.039	0.000	0.774	0.000	0.000	0.774
26141140	8	0.08	Sea bass, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.773	0.021	0.042	0.000	0.835	0.000	0.000	0.835
26141160	8	0.08	Sea bass, steamed or poached		0.993	RAW	0.0%	0.993	0.919	0.025	0.050	0.000	0.993	0.000	0.000	0.993
26143120	1	0.01	Shark, baked or broiled		0.933	RAW	0.0%	0.933	0.808	0.000	0.125	0.000	0.933	0.000	0.000	0.933
26147110	2	0.02	Sturgeon, cooked, NS as to cooking method		0.992	RAW	0.0%	0.992	0.000	0.417	0.575	0.000	0.992	0.000	0.000	0.992
26149120	16	0.17	Swordfish, baked or broiled		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.000	0.933
26149140	3	0.03	Swordfish, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.000	0.835
26149160	1	0.01	Swordfish, steamed or poached		0.993	RAW	0.0%	0.993	0.993	0.000	0.000	0.000	0.993	0.000	0.000	0.993
26151110	1	0.01	Trout, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.099	0.811	0.023	0.000	0.933	0.000	0.000	0.933
26151120	39	0.41	Trout, baked or broiled		0.933	RAW	0.0%	0.933	0.099	0.811	0.023	0.000	0.933	0.000	0.000	0.933
26151130	4	0.04	Trout, breaded or battered, baked		0.835	RAW	0.0%	0.835	0.089	0.725	0.021	0.000	0.835	0.000	0.000	0.835
26151140	29	0.3	Trout, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.089	0.726	0.021	0.000	0.835	0.000	0.000	0.835

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26151150	24	0.25	Trout, battered, fried		0.752	RAW	0.0%	0.752	0.080	0.653	0.019	0.000	0.752	0.000	0.000	0.752
26151190	1	0.01	Trout, smoked		0.993	RAW	0.0%	0.993	0.106	0.862	0.025	0.000	0.993	0.000	0.000	0.993
26153100	7	0.07	Tuna, fresh, raw		1.000	RAW	0.0%	1.000	1.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000
26153110	6	0.06	Tuna, fresh, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.000	0.933
26153120	37	0.39	Tuna, fresh, baked or broiled		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.000	0.933
26153140	4	0.04	Tuna, fresh, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.000	0.835
26153160	5	0.05	Tuna, fresh, steamed or poached		0.993	RAW	0.0%	0.993	0.993	0.000	0.000	0.000	0.993	0.000	0.000	0.993
26155110	369	3.86	Tuna, canned, NS as to oil or water pack		1.000	CANNED	25.0%	1.333	1.333	0.000	0.000	0.000	1.333	0.000	0.000	1.333
26155190	1	0.01	Tuna, canned, water pack		1.000	CANNED	25.0%	1.333	1.333	0.000	0.000	0.000	1.333	0.000	0.000	1.333
26157120	28	0.29	Whiting, baked or broiled		0.933	RAW	0.0%	0.933	0.933	0.000	0.000	0.000	0.933	0.000	0.933	0.000
26157130	3	0.03	Whiting, breaded or battered, baked		0.775	RAW	0.0%	0.775	0.775	0.000	0.000	0.000	0.775	0.000	0.775	0.000
26157140	64	0.67	Whiting, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.835	0.000	0.000	0.000	0.835	0.000	0.835	0.000
26157150	24	0.25	Whiting, battered, fried		0.752	RAW	0.0%	0.752	0.752	0.000	0.000	0.000	0.752	0.000	0.752	0.000
26158000	17	0.18	Tilapia, cooked, NS as to cooking method		0.933	RAW	0.0%	0.933	0.000	0.467	0.467	0.000	0.933	0.933	0.000	0.000
26158010	187	1.96	Tilapia, baked or broiled		0.933	RAW	0.0%	0.933	0.000	0.467	0.467	0.000	0.933	0.933	0.000	0.000
26158020	20	0.21	Tilapia, breaded or battered, baked		0.774	RAW	0.0%	0.774	0.000	0.387	0.387	0.000	0.774	0.774	0.000	0.000
26158030	63	0.66	Tilapia, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.418	0.418	0.000	0.835	0.835	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26158040	21	0.22	Tilapia, battered, fried		0.752	RAW	0.0%	0.752	0.000	0.376	0.376	0.000	0.752	0.752	0.000	0.000
26205110	3	0.03	Octopus, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.518	0.000	0.317	0.835	0.000	0.000	0.418	0.418
26205160	1	0.01	Octopus, steamed		0.992	RAW	0.0%	0.992	0.615	0.000	0.377	0.992	0.000	0.000	0.496	0.496
26207110	4	0.04	Roe, shad, cooked		0.913	RAW	0.0%	0.913	0.078	0.215	0.621	0.000	0.913	0.000	0.000	0.000
26211100	4	0.04	Roe, sturgeon		1.000	RAW	0.0%	1.000	0.085	0.235	0.680	0.000	1.000	0.000	0.000	0.000
26213120	13	0.14	Squid, baked, broiled		0.963	RAW	0.0%	0.963	0.771	0.000	0.193	0.963	0.000	0.000	0.482	0.482
26213140	41	0.43	Squid, breaded, fried		0.835	RAW	0.0%	0.835	0.668	0.000	0.167	0.835	0.000	0.000	0.418	0.418
26213160	1	0.01	Squid, steamed or boiled		0.992	RAW	0.0%	0.992	0.793	0.000	0.198	0.992	0.000	0.000	0.496	0.496
26213170	5	0.05	Squid, dried		0.997	RAW	0.0%	0.997	0.798	0.000	0.199	0.997	0.000	0.000	0.499	0.499
26213190	1	0.01	Squid, canned		0.994	RAW	0.0%	0.994	0.795	0.000	0.199	0.994	0.000	0.000	0.497	0.497
26303100	3	0.03	Clams, raw		1.000	RAW	0.0%	1.000	0.840	0.000	0.160	1.000	0.000	1.000	0.000	0.000
26303110	6	0.06	Clams, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.702	0.000	0.134	0.835	0.000	0.835	0.000	0.000
26303120	8	0.08	Clams, baked or broiled		0.935	RAW	0.0%	0.935	0.786	0.000	0.150	0.935	0.000	0.935	0.000	0.000
26303140	11	0.12	Clams, floured or breaded, fried		0.837	RAW	0.0%	0.837	0.703	0.000	0.134	0.837	0.000	0.837	0.000	0.000
26303150	6	0.06	Clams, battered, fried		0.754	RAW	0.0%	0.754	0.633	0.000	0.121	0.754	0.000	0.754	0.000	0.000
26303160	19	0.2	Clams, steamed or boiled		0.992	RAW	0.0%	0.992	0.833	0.000	0.159	0.992	0.000	0.992	0.000	0.000
26303180	3	0.03	Clams, canned		1.000	RAW	0.0%	1.000	0.840	0.000	0.160	1.000	0.000	1.000	0.000	0.000
26305110	54	0.57	Crab, cooked, NS as to cooking method		0.992	COOKED MOIST HEAT	25.0%	1.322	0.361	0.000	0.961	0.000	1.322	0.000	1.322	0.000
26305120	18	0.19	Crab, baked or broiled		0.935	COOKED MOIST HEAT	25.0%	1.247	0.340	0.000	0.907	0.000	1.247	0.000	1.247	0.000
26305160	105	1.1	Crab, hard shell, steamed		0.993	COOKED MOIST HEAT	25.0%	1.325	0.362	0.000	0.963	0.000	1.325	0.000	1.325	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26307140	8	0.08	Crab, soft shell, floured or breaded, fried		0.680	COOKED MOIST HEAT	25.0%	0.906	0.247	0.000	0.659	0.000	0.906	0.000	0.906	0.000
26309140	4	0.04	Crayfish, floured or breaded, fried		0.755	RAW	0.0%	0.755	0.000	0.755	0.000	0.755	0.000	0.000	0.755	0.000
26309160	16	0.17	Crayfish, boiled or steamed		0.992	COOKED MOIST HEAT	25.0%	1.322	0.000	1.322	0.000	1.322	0.000	0.000	1.322	0.000
26311110	9	0.09	Lobster, cooked, NS as to cooking method		0.992	COOKED MOIST HEAT	25.0%	1.322	0.058	0.000	1.264	1.322	0.000	0.000	1.322	0.000
26311120	12	0.13	Lobster, baked or broiled		0.964	COOKED MOIST HEAT	25.0%	1.285	0.057	0.000	1.228	1.285	0.000	0.000	1.285	0.000
26311160	13	0.14	Lobster, steamed or boiled		0.992	COOKED MOIST HEAT	25.0%	1.322	0.058	0.000	1.264	1.322	0.000	0.000	1.322	0.000
26313110	6	0.06	Mussels, cooked, NS as to cooking method		0.935	RAW	0.0%	0.935	0.000	0.000	0.935	0.935	0.000	0.935	0.000	0.000
26313160	20	0.21	Mussels, steamed or poached		0.992	RAW	0.0%	0.992	0.000	0.000	0.992	0.992	0.000	0.992	0.000	0.000
26315100	17	0.18	Oysters, raw		1.000	RAW	0.0%	1.000	0.000	0.000	1.000	0.000	1.000	1.000	0.000	0.000
26315110	2	0.02	Oysters, cooked, NS as to cooking method		0.855	RAW	0.0%	0.855	0.000	0.000	0.855	0.000	0.855	0.855	0.000	0.000
26315120	17	0.18	Oysters, baked or broiled		0.935	RAW	0.0%	0.935	0.000	0.000	0.935	0.000	0.935	0.935	0.000	0.000
26315130	5	0.05	Oysters, steamed		0.992	RAW	0.0%	0.992	0.000	0.000	0.992	0.000	0.992	0.992	0.000	0.000
26315140	21	0.22	Oysters, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.000	0.835	0.000	0.835	0.835	0.000	0.000
26315150	23	0.24	Oysters, battered, fried		0.754	RAW	0.0%	0.754	0.000	0.000	0.754	0.000	0.754	0.754	0.000	0.000
26315180	5	0.05	Oysters, canned		1.000	CANNED	25.0%	1.333	0.000	0.000	1.333	0.000	1.333	1.333	0.000	0.000
26315190	3	0.03	Oysters, smoked		0.993	RAW	0.0%	0.993	0.000	0.000	0.993	0.000	0.993	0.993	0.000	0.000
26317110	11	0.12	Scallops, cooked, NS as to cooking method		0.835	RAW	0.0%	0.835	0.000	0.000	0.835	0.835	0.000	0.835	0.000	0.000
26317120	23	0.24	Scallops, baked or broiled		0.963	RAW	0.0%	0.963	0.000	0.000	0.963	0.963	0.000	0.963	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
26317130	2	0.02	Scallops, steamed or boiled		0.993	RAW	0.0%	0.993	0.000	0.000	0.993	0.993	0.000	0.993	0.000	0.000
26317140	12	0.13	Scallops, floured or breaded, fried		0.835	RAW	0.0%	0.835	0.000	0.000	0.835	0.835	0.000	0.835	0.000	0.000
26317150	6	0.06	Scallops, battered, fried		0.754	RAW	0.0%	0.754	0.000	0.000	0.754	0.754	0.000	0.754	0.000	0.000
26319110	251	2.63	Shrimp, cooked, NS as to cooking method		0.993	RAW	0.0%	0.993	0.175	0.000	0.819	0.993	0.000	0.497	0.497	0.000
26319120	325	3.4	Shrimp, baked or broiled		0.963	RAW	0.0%	0.963	0.170	0.000	0.794	0.963	0.000	0.482	0.482	0.000
26319130	188	1.97	Shrimp, steamed or boiled		0.993	RAW	0.0%	0.993	0.175	0.000	0.819	0.993	0.000	0.497	0.497	0.000
26319140	468	4.9	Shrimp, floured, breaded, or battered, fried		0.636	RAW	0.0%	0.636	0.112	0.000	0.524	0.636	0.000	0.318	0.318	0.000
26319170	8	0.08	Shrimp, dried		1.000	CANNED	25.0%	1.333	0.235	0.000	1.099	1.333	0.000	0.667	0.667	0.000
26319180	2	0.02	Shrimp, canned		1.000	CANNED	25.0%	1.333	0.235	0.000	1.099	1.333	0.000	0.667	0.667	0.000
26321110	3	0.03	Snails, cooked, NS as to cooking method		0.970	RAW	0.0%	0.970	0.436	0.097	0.436	0.000	0.970	0.970	0.000	0.000
27116400	1	0.01	Steak tartare (raw ground beef and egg)		0.016	CANNED	25.0%	0.021	0.000	0.000	0.021	0.000	0.021	0.011	0.011	0.000
27150010	2	0.02	Fish with cream or white sauce, not tuna or lobster (mixture)		0.351	CANNED	25.0%	0.468	0.468	0.000	0.000	0.000	0.468	0.000	0.234	0.234
27150020	3	0.03	Crab, deviled		0.471	COOKED MOIST HEAT	25.0%	0.627	0.171	0.000	0.456	0.000	0.627	0.000	0.627	0.000
27150030	1	0.01	Crab imperial		0.574	COOKED MOIST HEAT	25.0%	0.765	0.209	0.000	0.556	0.000	0.765	0.000	0.765	0.000
27150060	1	0.01	Lobster newburg		0.366	COOKED MOIST HEAT	25.0%	0.488	0.021	0.000	0.466	0.488	0.000	0.000	0.488	0.000
27150070	2	0.02	Lobster with butter sauce (mixture)		0.773	COOKED MOIST HEAT	25.0%	1.031	0.045	0.000	0.985	1.031	0.000	0.000	1.031	0.000
27150100	4	0.04	Shrimp curry		0.364	CANNED	25.0%	0.485	0.085	0.000	0.400	0.485	0.000	0.242	0.242	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27150110	75	0.79	Shrimp cocktail (shrimp with cocktail sauce)		0.654	COOKED MOIST HEAT	25.0%	0.872	0.153	0.000	0.719	0.872	0.000	0.436	0.436	0.000
27150120	1	0.01	Tuna with cream or white sauce (mixture)		0.342	CANNED	25.0%	0.456	0.456	0.000	0.000	0.000	0.456	0.000	0.000	0.456
27150130	11	0.12	Seafood newburg	Crustaceans, crab, blue, cooked, moist heat	0.122	COOKED MOIST HEAT	25.0%	0.163	0.044	0.000	0.118	0.000	0.163	0.000	0.163	0.000
27150130			Seafood newburg	Crustaceans, lobster, northern, cooked, moist heat	0.122	COOKED MOIST HEAT	25.0%	0.163	0.007	0.000	0.155	0.163	0.000	0.000	0.163	0.000
27150130			Seafood newburg	Crustaceans, shrimp, mixed species, cooked, moist heat	0.122	COOKED MOIST HEAT	25.0%	0.163	0.029	0.000	0.134	0.163	0.000	0.081	0.081	0.000
27150140	3	0.03	Clam sauce, white		0.653	CANNED	25.0%	0.871	0.732	0.000	0.139	0.871	0.000	0.871	0.000	0.000
27150160	3	0.03	Shrimp with lobster sauce (mixture)		0.472	CANNED	25.0%	0.629	0.111	0.000	0.519	0.629	0.000	0.315	0.315	0.000
27150170	8	0.08	Sweet and sour shrimp		0.339	RAW	0.0%	0.339	0.060	0.000	0.279	0.339	0.000	0.169	0.169	0.000
27150200	10	0.1	Oyster sauce (white sauce-based)		0.494	CANNED	25.0%	0.659	0.000	0.000	0.659	0.000	0.659	0.659	0.000	0.000
27150210	47	0.49	Fish sauce (bagoong)		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27150230	42	0.44	Shrimp scampi		0.819	CANNED	25.0%	1.091	0.192	0.000	0.899	1.091	0.000	0.546	0.546	0.000
27150310	13	0.14	Fish with tomato-based sauce (mixture)		0.653	RAW	0.0%	0.653	0.568	0.000	0.085	0.000	0.653	0.000	0.327	0.327
27150320	18	0.19	Fish curry		0.371	RAW	0.0%	0.371	0.371	0.000	0.000	0.000	0.371	0.000	0.186	0.186
27150330	1	0.01	Mussels with tomato-based sauce (mixture)		0.800	RAW	0.0%	0.800	0.000	0.000	0.800	0.800	0.000	0.800	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27150350	3	0.03	Sardines with tomato-based sauce (mixture)		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000
27150370	2	0.02	Sardines with mustard sauce (mixture)		1.000	CANNED	25.0%	1.333	1.200	0.000	0.133	0.000	1.333	0.000	1.333	0.000
27150410	3	0.03	Shrimp teriyaki (shrimp with soy-based sauce) (mixture)		0.880	COOKED MOIST HEAT	25.0%	1.173	0.207	0.000	0.967	1.173	0.000	0.587	0.587	0.000
27150510	1	0.01	Scallops with cheese sauce (mixture)		0.497	STEAMED	21.0%	0.629	0.000	0.000	0.629	0.629	0.000	0.629	0.000	0.000
27151030	60	0.63	Marinated fish (Ceviche)		0.534	RAW	0.0%	0.534	0.494	0.013	0.027	0.000	0.534	0.000	0.000	0.534
27151040	2	0.02	Crabs in tomato-based sauce, Puerto Rican style (mixture) (Salmorejo de jueyes)		0.616	COOKED MOIST HEAT	25.0%	0.822	0.224	0.000	0.598	0.000	0.822	0.000	0.822	0.000
27151050	5	0.05	Shrimp in garlic sauce, Puerto Rican style (mixture) (Camarones al ajillo)		0.654	RAW	0.0%	0.654	0.115	0.000	0.539	0.654	0.000	0.327	0.327	0.000
27151070	2	0.02	Stewed codfish, Puerto Rican style, no potatoes (potatoes reported separately)		0.210	SALTED	30.0%	0.300	0.300	0.000	0.000	0.000	0.300	0.000	0.150	0.150
27250020	1	0.01	Clams, stuffed		0.530	RAW	0.0%	0.530	0.445	0.000	0.085	0.530	0.000	0.530	0.000	0.000
27250030	8	0.08	Codfish ball or cake		0.442	CANNED	25.0%	0.589	0.589	0.000	0.000	0.000	0.589	0.000	0.295	0.295
27250040	78	0.82	Crab cake		0.686	COOKED MOIST HEAT	25.0%	0.915	0.250	0.000	0.665	0.000	0.915	0.000	0.915	0.000
27250050	6	0.06	Fish cake or patty, NS as to fish		0.442	CANNED	25.0%	0.589	0.589	0.000	0.000	0.000	0.589	0.000	0.295	0.295

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27250070	103	1.08	Salmon cake or patty		0.474	CANNED	25.0%	0.631	0.606	0.003	0.022	0.000	0.631	0.000	0.000	0.631
27250110	1	0.01	Scallops and noodles with cheese sauce (mixture)		0.373	STEAMED	21.0%	0.472	0.000	0.000	0.472	0.472	0.000	0.472	0.000	0.000
27250120	18	0.19	Shrimp and noodles, no sauce (mixture)		0.339	CANNED	25.0%	0.452	0.080	0.000	0.373	0.452	0.000	0.226	0.226	0.000
27250122	1	0.01	Shrimp and noodles with gravy (mixture)		0.195	CANNED	25.0%	0.260	0.046	0.000	0.214	0.260	0.000	0.130	0.130	0.000
27250124	1	0.01	Shrimp and noodles with (mushroom) soup (mixture)		0.215	CANNED	25.0%	0.287	0.050	0.000	0.236	0.287	0.000	0.143	0.143	0.000
27250126	13	0.14	Shrimp and noodles with cream or white sauce (mixture)		0.198	CANNED	25.0%	0.264	0.047	0.000	0.218	0.264	0.000	0.132	0.132	0.000
27250128	4	0.04	Shrimp and noodles with soy-based sauce (mixture)		0.221	CANNED	25.0%	0.294	0.052	0.000	0.242	0.294	0.000	0.147	0.147	0.000
27250130	50	0.52	Shrimp and noodles with cheese sauce (mixture)		0.373	COOKED MOIST HEAT	25.0%	0.498	0.088	0.000	0.410	0.498	0.000	0.249	0.249	0.000
27250132	19	0.2	Shrimp and noodles with tomato sauce (mixture)		0.246	CANNED	25.0%	0.328	0.058	0.000	0.270	0.328	0.000	0.164	0.164	0.000
27250160	18	0.19	Tuna cake or patty		0.489	CANNED	25.0%	0.652	0.652	0.000	0.000	0.000	0.652	0.000	0.000	0.652
27250210	2	0.02	Clam cake or patty		0.509	CANNED	25.0%	0.679	0.570	0.000	0.109	0.679	0.000	0.679	0.000	0.000
27250220	1	0.01	Oyster fritter		0.510	RAW	0.0%	0.510	0.000	0.000	0.510	0.000	0.510	0.510	0.000	0.000
27250250	4	0.04	Flounder with crab stuffing	FISH, FLATFISH (FLOUNDER AND SOLE SPECIES), RAW	0.634	RAW	0.0%	0.634	0.552	0.000	0.082	0.000	0.634	0.000	0.317	0.317

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27250250			Flounder with crab stuffing	CRUSTACEANS, CRAB, BLUE, COOKED, MOIST HEAT	0.159	COOKED MOIST HEAT	25.0%	0.211	0.058	0.000	0.154	0.000	0.211	0.000	0.211	0.000
27250260	1	0.01	Lobster with bread stuffing, baked		0.686	COOKED MOIST HEAT	25.0%	0.914	0.040	0.000	0.874	0.914	0.000	0.000	0.914	0.000
27250400	8	0.08	Shrimp cake or patty		0.475	CANNED	25.0%	0.633	0.111	0.000	0.522	0.633	0.000	0.317	0.317	0.000
27250410	8	0.08	Shrimp with crab stuffing	CRUSTACEANS, CRAB, BLUE, COOKED, MOIST HEAT	0.410	COOKED MOIST HEAT	25.0%	0.546	0.149	0.000	0.397	0.000	0.546	0.000	0.546	0.000
27250410			Shrimp with crab stuffing	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.376	RAW	0.0%	0.376	0.066	0.000	0.310	0.376	0.000	0.188	0.188	0.000
27250450	1	0.01	Shrimp toast, fried		0.331	RAW	0.0%	0.331	0.058	0.000	0.273	0.331	0.000	0.166	0.166	0.000
27250510	1	0.01	Fish cake (Kamaboko) tempura		0.603	RAW	0.0%	0.603	0.603	0.000	0.000	0.000	0.603	0.000	0.301	0.301
27250520	59	0.62	Seafood restructured		1.000	RESTRUCTURED	25.0%	1.333	0.364	0.000	0.969	0.000	1.333	0.000	1.333	0.000
27250610	65	0.68	Tuna noodle casserole with cream or white sauce		0.281	CANNED	25.0%	0.375	0.375	0.000	0.000	0.000	0.375	0.000	0.000	0.375
27250630	2	0.02	Tuna noodle casserole with (mushroom) soup		0.278	CANNED	25.0%	0.371	0.371	0.000	0.000	0.000	0.371	0.000	0.000	0.371
27250810	4	0.04	Fish and rice with tomato-based sauce		0.195	CANNED	25.0%	0.261	0.261	0.000	0.000	0.000	0.261	0.000	0.000	0.261
27250820	1	0.01	Fish and rice with cream sauce		0.196	CANNED	25.0%	0.261	0.261	0.000	0.000	0.000	0.261	0.000	0.000	0.261
27250830	1	0.01	Fish and rice with (mushroom) soup		0.195	CANNED	25.0%	0.261	0.261	0.000	0.000	0.000	0.261	0.000	0.000	0.261

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27250900	5	0.05	Fish and noodles with (mushroom) soup		0.218	CANNED	25.0%	0.291	0.291	0.000	0.000	0.000	0.291	0.000	0.000	0.291
27250950	5	0.05	Shellfish mixture and noodles, tomato-based sauce (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.076	CANNED	25.0%	0.102	0.018	0.000	0.084	0.102	0.000	0.051	0.051	0.000
27250950			Shellfish mixture and noodles, tomato-based sauce (mixture)	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.076	RAW	0.0%	0.076	0.064	0.000	0.012	0.076	0.000	0.076	0.000	0.000
27250950			Shellfish mixture and noodles, tomato-based sauce (mixture)	MOLLUSKS, SCALLOP, MIXED SPECIES, RAW	0.076	RAW	0.0%	0.076	0.000	0.000	0.076	0.076	0.000	0.076	0.000	0.000
27350020	2	0.02	Paella with seafood	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.021	RAW	0.0%	0.021	0.004	0.000	0.017	0.021	0.000	0.011	0.011	0.000
27350020			Paella with seafood	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.102	RAW	0.0%	0.102	0.085	0.000	0.016	0.102	0.000	0.102	0.000	0.000
27350030	4	0.04	Seafood stew with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy), tomato-base sauce	FISH, PERCH, MIXED SPECIES, RAW	0.081	RAW	0.0%	0.081	0.000	0.081	0.000	0.000	0.081	0.000	0.000	0.081
27350030			Seafood stew with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy), tomato-base sauce	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.081	COOKED MOIST HEAT	25.0%	0.108	0.019	0.000	0.089	0.108	0.000	0.054	0.054	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27350030			Seafood stew with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy), tomato-base sauce	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.163	RAW	0.0%	0.163	0.137	0.000	0.026	0.163	0.000	0.163	0.000	0.000
27350050	17	0.18	Shrimp chow mein or chop suey with noodles		0.191	CANNED	25.0%	0.254	0.045	0.000	0.210	0.254	0.000	0.127	0.127	0.000
27350060	32	0.34	Shrimp creole, with rice		0.369	CANNED	25.0%	0.492	0.087	0.000	0.406	0.492	0.000	0.246	0.246	0.000
27350080	16	0.17	Tuna noodle casserole with vegetables, cream or white sauce		0.161	CANNED	25.0%	0.215	0.215	0.000	0.000	0.000	0.215	0.000	0.000	0.215
27350110	18	0.19	Bouillabaisse	FISH, HALIBUT, ATLANTIC AND PACIFIC, RAW	0.103	RAW	0.0%	0.103	0.081	0.000	0.023	0.000	0.103	0.000	0.000	0.103
27350110			Bouillabaisse	FISH, POMPANO, FLORIDA, RAW	0.103	RAW	0.0%	0.103	0.068	0.000	0.035	0.000	0.103	0.000	0.000	0.103
27350110			Bouillabaisse	FISH, SNAPPER, MIXED SPECIES, RAW	0.103	RAW	0.0%	0.103	0.101	0.000	0.002	0.000	0.103	0.000	0.000	0.103
27350110			Bouillabaisse	CRUSTACEANS, LOBSTER, NORTHERN, RAW	0.052	RAW	0.0%	0.052	0.002	0.000	0.049	0.052	0.000	0.000	0.052	0.000
27350110			Bouillabaisse	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.052	RAW	0.0%	0.052	0.009	0.000	0.043	0.052	0.000	0.026	0.026	0.000
27350110			Bouillabaisse	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.052	RAW	0.0%	0.052	0.043	0.000	0.008	0.052	0.000	0.052	0.000	0.000
27350110			Bouillabaisse	MOLLUSKS, MUSSEL, BLUE, RAW	0.052	RAW	0.0%	0.052	0.000	0.000	0.052	0.052	0.000	0.052	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27350110			Bouillabaisse	MOLLUSKS, SCALLOP, MIXED SPECIES, RAW	0.103	RAW	0.0%	0.103	0.000	0.000	0.103	0.103	0.000	0.103	0.000	0.000
27350310	5	0.05	Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	FISH, PERCH, MIXED SPECIES, RAW	0.083	RAW	0.0%	0.083	0.000	0.083	0.000	0.000	0.083	0.000	0.000	0.083
27350310			Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.083	COOKED MOIST HEAT	25.0%	0.110	0.019	0.000	0.091	0.110	0.000	0.055	0.055	0.000
27350310			Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.166	RAW	0.0%	0.166	0.139	0.000	0.026	0.166	0.000	0.166	0.000	0.000
27350410	3	0.03	Tuna noodle casserole with vegetables and (mushroom) soup		0.238	CANNED	25.0%	0.317	0.317	0.000	0.000	0.000	0.317	0.000	0.000	0.317
27360080	5	0.05	Chow mein or chop suey, NS as to type of meat, with noodles		0.057	CANNED	25.0%	0.076	0.013	0.000	0.062	0.076	0.000	0.038	0.038	0.000
27360090	9	0.09	Paella, NFS	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.025	RAW	0.0%	0.025	0.004	0.000	0.021	0.025	0.000	0.013	0.013	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27360090			Paella, NFS	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.105	RAW	0.0%	0.105	0.088	0.000	0.017	0.105	0.000	0.105	0.000	0.000
27363000	55	0.58	Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	CRUSTACEANS, CRAB, BLUE, COOKED, MOIST HEAT	0.017	COOKED MOIST HEAT	25.0%	0.023	0.006	0.000	0.017	0.000	0.023	0.000	0.023	0.000
27363000			Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.017	RAW	0.0%	0.017	0.003	0.000	0.014	0.017	0.000	0.008	0.008	0.000
27363000			Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	MOLLUSKS, OYSTER, EASTERN, WILD, RAW	0.048	RAW	0.0%	0.048	0.000	0.000	0.048	0.000	0.048	0.048	0.000	0.000
27420200	1	0.01	Pork hash, Hawaiian style-ground pork, vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce		0.063	RAW	0.0%	0.063	0.011	0.000	0.052	0.063	0.000	0.031	0.031	0.000
27450010	20	0.21	Crab salad		0.642	COOKED MOIST HEAT	25.0%	0.856	0.234	0.000	0.622	0.000	0.856	0.000	0.856	0.000
27450020	4	0.04	Lobster salad		0.204	COOKED MOIST HEAT	25.0%	0.272	0.012	0.000	0.260	0.272	0.000	0.000	0.272	0.000
27450030	15	0.16	Salmon salad		0.526	CANNED	25.0%	0.701	0.673	0.004	0.025	0.000	0.701	0.000	0.000	0.701
27450040	6	0.06	Shrimp chow mein or chop suey, no noodles		0.214	CANNED	25.0%	0.285	0.050	0.000	0.235	0.285	0.000	0.142	0.142	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450060	742	7.77	Tuna salad		0.546	CANNED	25.0%	0.728	0.728	0.000	0.000	0.000	0.728	0.000	0.000	0.728
27450070	16	0.17	Shrimp salad		0.620	CANNED	25.0%	0.827	0.146	0.000	0.681	0.827	0.000	0.413	0.413	0.000
27450080	38	0.4	Seafood salad	CRUSTACEANS, CRAB, BLUE, CANNED	0.200	CANNED	25.0%	0.266	0.073	0.000	0.194	0.000	0.266	0.000	0.266	0.000
27450080			Seafood salad	CRUSTACEANS, LOBSTER, NORTHERN, COOKED, MOIST HEAT	0.200	COOKED MOIST HEAT	25.0%	0.266	0.012	0.000	0.255	0.266	0.000	0.000	0.266	0.000
27450080			Seafood salad	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.200	CANNED	25.0%	0.266	0.047	0.000	0.219	0.266	0.000	0.133	0.133	0.000
27450090	17	0.18	Tuna salad with cheese		0.466	CANNED	25.0%	0.621	0.621	0.000	0.000	0.000	0.621	0.000	0.000	0.621
27450100	123	1.29	Tuna salad with egg		0.473	CANNED	25.0%	0.630	0.630	0.000	0.000	0.000	0.630	0.000	0.000	0.630
27450120	2	0.02	Shrimp garden salad (shrimp, lettuce, eggs, vegetables excluding tomato and carrots), no dressing		0.428	CANNED	25.0%	0.571	0.100	0.000	0.470	0.571	0.000	0.285	0.285	0.000
27450130	17	0.18	Crab salad made with imitation crab		0.642	RESTRUCTURED	25.0%	0.856	0.445	0.137	0.274	0.000	0.856	0.000	0.428	0.428
27450150	2	0.02	Fish, tofu, and vegetables, tempura, Hawaiian style (mixture)		0.060	CANNED	25.0%	0.079	0.014	0.000	0.065	0.079	0.000	0.040	0.040	0.000
27450180	1	0.01	Seafood garden salad with seafood, lettuce, vegetables excluding tomato and carrots, no dressing	CRUSTACEANS, CRAB, BLUE, CANNED	0.150	CANNED	25.0%	0.200	0.055	0.000	0.145	0.000	0.200	0.000	0.200	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450180			Seafood garden salad with seafood, lettuce, vegetables excluding tomato and carrots, no dressing	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.150	CANNED	25.0%	0.200	0.035	0.000	0.165	0.200	0.000	0.100	0.100	0.000
27450310	2	0.02	Lomi salmon		0.349	CANNED	25.0%	0.466	0.447	0.002	0.016	0.000	0.466	0.000	0.000	0.466
27450400	16	0.17	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), no sauce (mixture)		0.241	STEAMED	21.0%	0.305	0.054	0.000	0.252	0.305	0.000	0.153	0.153	0.000
27450405	16	0.17	Shrimp and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), no sauce (mixture)		0.374	STEAMED	21.0%	0.473	0.083	0.000	0.390	0.473	0.000	0.236	0.236	0.000
27450410	99	1.04	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27450410			Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.322	COOKED MOIST HEAT	25.0%	0.430	0.076	0.000	0.354	0.430	0.000	0.215	0.215	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450420	27	0.28	Shrimp and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27450420			Shrimp and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.327	COOKED MOIST HEAT	25.0%	0.435	0.077	0.000	0.359	0.435	0.000	0.218	0.218	0.000
27450430	6	0.06	Shrimp shish kabob with vegetables, excluding potatoes		0.383	BAKED	25.0%	0.510	0.090	0.000	0.420	0.510	0.000	0.255	0.255	0.000
27450450	19	0.2	Shrimp creole, no rice		0.510	STEAMED	21.0%	0.645	0.114	0.000	0.532	0.645	0.000	0.323	0.323	0.000
27450470	5	0.05	Kung Pao shrimp		0.623	RAW	0.0%	0.623	0.110	0.000	0.514	0.623	0.000	0.312	0.312	0.000
27450510	2	0.02	Tuna casserole with vegetables and (mushroom) soup, no noodles		0.321	CANNED	25.0%	0.428	0.428	0.000	0.000	0.000	0.428	0.000	0.000	0.428
27450600	2	0.02	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450600			Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.161	COOKED MOIST HEAT	25.0%	0.215	0.038	0.000	0.177	0.215	0.000	0.107	0.107	0.000
27450600			Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce	MOLLUSKS, CLAM, MIXED SPECIES, CANNED, DRAINED SOLIDS	0.161	CANNED	25.0%	0.215	0.180	0.000	0.034	0.215	0.000	0.215	0.000	0.000
27450610	1	0.01	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27450610			Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.163	COOKED MOIST HEAT	25.0%	0.218	0.038	0.000	0.179	0.218	0.000	0.109	0.109	0.000
27450610			Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce	MOLLUSKS, CLAM, MIXED SPECIES, CANNED, DRAINED SOLIDS	0.163	CANNED	25.0%	0.218	0.183	0.000	0.035	0.218	0.000	0.218	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450650	1	0.01	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), (mushroom) soup (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.133	RAW	0.0%	0.133	0.023	0.000	0.110	0.133	0.000	0.066	0.066	0.000
27450650			Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), (mushroom) soup (mixture)	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.133	RAW	0.0%	0.133	0.112	0.000	0.021	0.133	0.000	0.133	0.000	0.000
27450660	1	0.01	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), (mushroom) soup (mixture)	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.127	RAW	0.0%	0.127	0.022	0.000	0.105	0.127	0.000	0.064	0.064	0.000
27450660			Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), (mushroom) soup (mixture)	MOLLUSKS, CLAM, MIXED SPECIES, CANNED, DRAINED SOLIDS	0.179	CANNED	25.0%	0.239	0.201	0.000	0.038	0.239	0.000	0.239	0.000	0.000
27450700	8	0.08	Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)),		0.560	RAW	0.0%	0.560	0.487	0.000	0.073	0.000	0.560	0.000	0.280	0.280

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
			tomato-based sauce (mixture)													
27450710	14	0.15	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), tomato-based sauce (mixture)		0.555	RAW	0.0%	0.555	0.483	0.000	0.072	0.000	0.555	0.000	0.277	0.277
27450740	5	0.05	Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27450740			Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	FISH, COD, ATLANTIC, COOKED, DRY HEAT	0.336	COOKED DRY HEAT	25.0%	0.449	0.449	0.000	0.000	0.000	0.449	0.000	0.224	0.224
27450750	9	0.09	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	SOUP, STOCK, FISH, HOME-PREPARED	0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27450750			Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	FISH, COD, ATLANTIC, COOKED, DRY HEAT	0.341	COOKED DRY HEAT	25.0%	0.454	0.454	0.000	0.000	0.000	0.454	0.000	0.227	0.227
27451030	1	0.01	Lobster with sauce, Puerto Rican style (Langosta a la criolla)		0.422	RAW	0.0%	0.422	0.019	0.000	0.403	0.422	0.000	0.000	0.422	0.000
27460510	16	0.17	Antipasto with ham, fish, cheese, vegetables		0.065	CANNED	25.0%	0.087	0.000	0.000	0.087	0.000	0.087	0.043	0.043	0.000
27464000	41	0.43	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	CRUSTACEANS, CRAB, BLUE, COOKED, MOIST HEAT	0.019	COOKED MOIST HEAT	25.0%	0.025	0.007	0.000	0.018	0.000	0.025	0.000	0.025	0.000
27464000			Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.018	RAW	0.0%	0.018	0.003	0.000	0.015	0.018	0.000	0.009	0.009	0.000
27464000			Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	MOLLUSKS, OYSTER, EASTERN, WILD, RAW	0.052	RAW	0.0%	0.052	0.000	0.000	0.052	0.000	0.052	0.052	0.000	0.000
27550000	55	0.58	Fish sandwich, on bun, with spread		0.208	PREHEATED	25.0%	0.277	0.144	0.044	0.089	0.000	0.277	0.000	0.139	0.139
27550100	115	1.2	Fish sandwich, on bun, with cheese and spread		0.173	PREHEATED	25.0%	0.230	0.120	0.037	0.074	0.000	0.230	0.000	0.115	0.115

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
27550720	2	0.02	Tuna salad sandwich		0.358	CANNED	25.0%	0.477	0.477	0.000	0.000	0.000	0.477	0.000	0.000	0.477
27550750	61	0.64	Tuna salad submarine sandwich, with lettuce and tomato		0.240	CANNED	25.0%	0.319	0.319	0.000	0.000	0.000	0.319	0.000	0.000	0.319
27550751	11	0.12	Tuna salad submarine sandwich, with cheese, lettuce and tomato		0.217	CANNED	25.0%	0.289	0.289	0.000	0.000	0.000	0.289	0.000	0.000	0.289
28120310	2	0.02	Pork with rice, vegetable, in soy-based sauce (diet frozen meal)		0.010	COOKED MOIST HEAT	25.0%	0.013	0.000	0.000	0.013	0.000	0.013	0.013	0.000	0.000
28150000	1	0.01	Fish dinner, NFS (frozen meal)		0.242	PREHEATED	25.0%	0.323	0.168	0.052	0.103	0.000	0.323	0.000	0.161	0.161
28150210	5	0.05	Haddock with chopped spinach (diet frozen meal)		0.414	RAW	0.0%	0.414	0.391	0.021	0.002	0.000	0.414	0.000	0.207	0.207
28150220	2	0.02	Flounder with chopped broccoli (diet frozen meal)		0.348	RAW	0.0%	0.348	0.302	0.000	0.045	0.000	0.348	0.000	0.174	0.174
28150510	3	0.03	Fish in lemon-butter sauce with starch item, vegetable (frozen meal)		0.240	RAW	0.0%	0.240	0.240	0.000	0.000	0.000	0.240	0.000	0.120	0.120
28150650	7	0.07	Fish, breaded, or fish sticks, with pasta, vegetable and dessert (frozen meal)		0.082	PREHEATED	25.0%	0.109	0.057	0.017	0.035	0.000	0.109	0.000	0.054	0.054
28152030	1	0.01	Seafood newburg with rice, vegetable (frozen meal)	CRUSTACEANS, LOBSTER, NORTHERN, COOKED, MOIST HEAT	0.010	COOKED MOIST HEAT	25.0%	0.013	0.001	0.000	0.013	0.013	0.000	0.000	0.013	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
28152030			Seafood newburg with rice, vegetable (frozen meal)	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.080	CANNED	25.0%	0.107	0.019	0.000	0.088	0.107	0.000	0.053	0.053	0.000
28152030			Seafood newburg with rice, vegetable (frozen meal)	CODFISH BALL OR CAKE	0.053	BAKED	25.0%	0.071	0.071	0.000	0.000	0.000	0.071	0.000	0.035	0.035
28152050	5	0.05	Shrimp with rice, vegetable (frozen meal)		0.095	CANNED	25.0%	0.127	0.022	0.000	0.105	0.127	0.000	0.063	0.063	0.000
28154010	5	0.05	Shrimp and vegetables in sauce with noodles (diet frozen meal)		0.139	CANNED	25.0%	0.185	0.033	0.000	0.153	0.185	0.000	0.093	0.093	0.000
28310330	27	0.28	Beef and rice noodle soup, Oriental style (Vietnamese Pho Bo)		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28320300	8	0.08	Pork with vegetable (excluding carrots, broccoli and/or dark-green leafy) soup, Oriental Style		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28350040	1	0.01	Fish stock, home recipe		0.000	SOUP	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28350050	16	0.17	Fish chowder		0.325	RAW	0.0%	0.325	0.325	0.000	0.000	0.000	0.325	0.000	0.162	0.162
28350110	6	0.06	Crab soup, NS as to tomato-base or cream style		0.222	COOKED MOIST HEAT	25.0%	0.296	0.081	0.000	0.215	0.000	0.296	0.000	0.296	0.000
28350120	1	0.01	Crab soup, tomato-base		0.221	COOKED MOIST HEAT	25.0%	0.295	0.080	0.000	0.214	0.000	0.295	0.000	0.295	0.000
28350210	15	0.16	Clam chowder, NS as to Manhattan or		0.399	CANNED	25.0%	0.532	0.447	0.000	0.085	0.532	0.000	0.532	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
			New England style													
28350220	10	0.1	Clam chowder, Manhattan		0.311	CANNED	25.0%	0.415	0.348	0.000	0.066	0.415	0.000	0.415	0.000	0.000
28351110	51	0.53	Fish and vegetable soup, no potatoes (Sopa de pescado)		0.227	RAW	0.0%	0.227	0.227	0.000	0.000	0.000	0.227	0.000	0.114	0.114
28351120	15	0.16	Fish soup, with potatoes (Sopa de Pescado)		0.237	RAW	0.0%	0.237	0.237	0.000	0.000	0.000	0.237	0.000	0.118	0.118
28355110	71	0.74	Clam chowder, New England, NS as to prepared with water or milk		0.399	CANNED	25.0%	0.532	0.447	0.000	0.085	0.532	0.000	0.532	0.000	0.000
28355120	11	0.12	Clam chowder, New England, prepared with milk		0.507	CANNED	25.0%	0.676	0.567	0.000	0.108	0.676	0.000	0.676	0.000	0.000
28355130	8	0.08	Clam chowder, New England, prepared with water		0.405	CANNED	25.0%	0.540	0.454	0.000	0.086	0.540	0.000	0.540	0.000	0.000
28355140	33	0.35	Clam chowder, New England, canned, reduced sodium, ready-to-serve		0.402	CANNED	25.0%	0.536	0.450	0.000	0.086	0.536	0.000	0.536	0.000	0.000
28355210	4	0.04	Crab soup, cream of, prepared with milk		0.267	COOKED MOIST HEAT	25.0%	0.356	0.097	0.000	0.259	0.000	0.356	0.000	0.356	0.000
28355250	8	0.08	Lobster bisque		0.238	COOKED MOIST HEAT	25.0%	0.317	0.014	0.000	0.303	0.317	0.000	0.000	0.317	0.000
28355310	11	0.12	Oyster stew		0.322	RAW	0.0%	0.322	0.000	0.000	0.322	0.000	0.322	0.322	0.000	0.000
28355350	2	0.02	Salmon soup, cream style		0.452	CANNED	25.0%	0.602	0.578	0.003	0.021	0.000	0.602	0.000	0.000	0.602

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
28355410	14	0.15	Shrimp soup, cream of, NS as to prepared with milk or water		0.031	CANNED	25.0%	0.041	0.007	0.000	0.034	0.041	0.000	0.020	0.020	0.000
28355420	1	0.01	Shrimp soup, cream of, prepared with milk		0.239	CANNED	25.0%	0.319	0.056	0.000	0.263	0.319	0.000	0.159	0.159	0.000
28355430	10	0.1	Shrimp soup, cream of, prepared with water		0.031	CANNED	25.0%	0.041	0.007	0.000	0.034	0.041	0.000	0.020	0.020	0.000
28355440	3	0.03	Shrimp gumbo		0.108	CANNED	25.0%	0.144	0.025	0.000	0.118	0.144	0.000	0.072	0.072	0.000
28355450	48	0.5	Seafood soup with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy)		0.117	RAW	0.0%	0.117	0.117	0.000	0.000	0.000	0.117	0.000	0.059	0.059
28355460	13	0.14	Seafood soup with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy)		0.115	RAW	0.0%	0.115	0.115	0.000	0.000	0.000	0.115	0.000	0.058	0.058
28355470	30	0.31	Seafood soup with vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes))		0.119	RAW	0.0%	0.119	0.119	0.000	0.000	0.000	0.119	0.000	0.059	0.059
28355480	29	0.3	Seafood soup with vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes))		0.116	RAW	0.0%	0.116	0.116	0.000	0.000	0.000	0.116	0.000	0.058	0.058

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
32105013	1	0.01	Egg omelet or scrambled egg, with seafood		0.171	COOKED MOIST HEAT	25.0%	0.228	0.040	0.000	0.188	0.228	0.000	0.114	0.114	0.000
32105020	10	0.1	Egg omelet or scrambled egg, with fish		0.149	CANNED	25.0%	0.199	0.191	0.001	0.007	0.000	0.199	0.000	0.000	0.199
32105230	14	0.15	Shrimp egg foo yung (young)		0.110	CANNED	25.0%	0.147	0.026	0.000	0.121	0.147	0.000	0.073	0.073	0.000
32110150	1	0.01	Shrimp-egg patty (Torta de Cameron seco)		0.356	DRIED	80.0%	1.781	0.313	0.000	1.467	1.781	0.000	0.890	0.890	0.000
54406200	10	0.1	Shrimp chips (tapioca base)		0.250	CANNED	25.0%	0.333	0.059	0.000	0.275	0.333	0.000	0.167	0.167	0.000
58100900	1	0.01	Enchilada with seafood, tomato-based sauce		0.281	CANNED	25.0%	0.375	0.066	0.000	0.309	0.375	0.000	0.187	0.187	0.000
58101540	21	0.22	Taco or tostada with fish, lettuce, tomato, salsa	CRUSTACEANS, CRAB, BLUE, CANNED	0.196	CANNED	25.0%	0.262	0.071	0.000	0.190	0.000	0.262	0.000	0.262	0.000
58101540			Taco or tostada with fish, lettuce, tomato, salsa	CRUSTACEANS, SHRIMP, MIXED SPECIES, CANNED	0.196	CANNED	25.0%	0.262	0.046	0.000	0.216	0.262	0.000	0.131	0.131	0.000
58106910	4	0.04	Pizza with seafood, thin crust	CRUSTACEANS, CRAB, ALASKA KING, IMITATION, MADE FROM SURIMI	0.065	RESTRUCTURED	25.0%	0.087	0.024	0.000	0.063	0.000	0.087	0.000	0.087	0.000
58106910			Pizza with seafood, thin crust	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.065	COOKED MOIST HEAT	25.0%	0.087	0.015	0.000	0.072	0.087	0.000	0.043	0.043	0.000
58106915	2	0.02	Pizza with seafood, regular crust	CRUSTACEANS, CRAB, ALASKA KING, IMITATION,	0.065	RESTRUCTURED	25.0%	0.087	0.024	0.000	0.063	0.000	0.087	0.000	0.087	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
				MADE FROM SURIMI												
58106915			Pizza with seafood, regular crust	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.065	COOKED MOIST HEAT	25.0%	0.087	0.015	0.000	0.072	0.087	0.000	0.043	0.043	0.000
58106920	1	0.01	Pizza with seafood, thick crust	CRUSTACEANS, CRAB, ALASKA KING, IMITATION, MADE FROM SURIMI	0.065	RESTRUCTURED	25.0%	0.087	0.024	0.000	0.063	0.000	0.087	0.000	0.087	0.000
58106920			Pizza with seafood, thick crust	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.065	COOKED MOIST HEAT	25.0%	0.087	0.015	0.000	0.072	0.087	0.000	0.043	0.043	0.000
58110120	61	0.64	Egg roll, with shrimp		0.091	COOKED MOIST HEAT	25.0%	0.121	0.021	0.000	0.100	0.121	0.000	0.061	0.061	0.000
58111200	31	0.32	Puffs, fried, crab meat and cream cheese filled		0.183	RESTRUCTURED	25.0%	0.245	0.127	0.039	0.078	0.000	0.245	0.000	0.122	0.122
58112510	45	0.47	Dumpling, steamed, filled with meat, poultry, or seafood		0.138	RAW	0.0%	0.138	0.024	0.000	0.114	0.138	0.000	0.069	0.069	0.000
58117410	15	0.16	Codfish fritter, Puerto Rican style (Bacalaitos fritos)		0.103	SALTED	30.0%	0.147	0.147	0.000	0.000	0.000	0.147	0.000	0.073	0.073
58120110	3	0.03	Crepes, filled with meat, fish, or poultry, with sauce		0.107	CANNED	25.0%	0.143	0.143	0.000	0.000	0.000	0.143	0.000	0.000	0.143
58128210	7	0.07	Dressing with oysters		0.246	RAW	0.0%	0.246	0.000	0.000	0.246	0.000	0.246	0.246	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
58132800	8	0.08	Spaghetti with clam sauce, NS as to red or white		0.296	COOKED MOIST HEAT	25.0%	0.395	0.331	0.000	0.063	0.395	0.000	0.395	0.000	0.000
58132810	3	0.03	Spaghetti with red clam sauce		0.236	CANNED	25.0%	0.314	0.264	0.000	0.050	0.314	0.000	0.314	0.000	0.000
58132820	4	0.04	Spaghetti with white clam sauce		0.296	COOKED MOIST HEAT	25.0%	0.395	0.331	0.000	0.063	0.395	0.000	0.395	0.000	0.000
58136130	64	0.67	Lo mein, with shrimp		0.084	COOKED MOIST HEAT	25.0%	0.112	0.020	0.000	0.092	0.112	0.000	0.056	0.056	0.000
58137210	5	0.05	Pad Thai, NFS	SAUCE, FISH, READY-TO-SERVE	0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58137210			Pad Thai, NFS	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.063	RAW	0.0%	0.063	0.011	0.000	0.052	0.063	0.000	0.032	0.032	0.000
58137220	11	0.12	Pad Thai, meatless		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58137230	23	0.24	Pad Thai with chicken		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58137240	11	0.12	Pad Thai with seafood	SAUCE, FISH, READY-TO-SERVE	0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58137240			Pad Thai with seafood	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.190	RAW	0.0%	0.190	0.034	0.000	0.157	0.190	0.000	0.095	0.095	0.000
58137250	6	0.06	Pad Thai with meat		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58145120	46	0.48	Macaroni or noodles with cheese and tuna		0.226	CANNED	25.0%	0.301	0.301	0.000	0.000	0.000	0.301	0.000	0.000	0.301
58147340	7	0.07	Macaroni, creamed, with cheese and tuna		0.217	CANNED	25.0%	0.289	0.289	0.000	0.000	0.000	0.289	0.000	0.000	0.289
58148130	45	0.47	Macaroni or pasta salad with tuna		0.152	CANNED	25.0%	0.203	0.203	0.000	0.000	0.000	0.203	0.000	0.000	0.203
58148140	8	0.08	Macaroni or pasta salad with crab meat		0.136	COOKED MOIST HEAT	25.0%	0.181	0.049	0.000	0.132	0.000	0.181	0.000	0.181	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
58148150	21	0.22	Macaroni or pasta salad with shrimp		0.130	CANNED	25.0%	0.173	0.030	0.000	0.142	0.173	0.000	0.086	0.086	0.000
58148160	30	0.31	Macaroni or pasta salad with tuna and egg		0.169	CANNED	25.0%	0.225	0.225	0.000	0.000	0.000	0.225	0.000	0.000	0.225
58150510	230	2.41	Rice, fried, with shrimp		0.150	COOKED MOIST HEAT	25.0%	0.200	0.035	0.000	0.165	0.200	0.000	0.100	0.100	0.000
58151100	16	0.17	Sushi, NFS		0.089	RAW	0.0%	0.089	0.070	0.000	0.020	0.000	0.089	0.000	0.000	0.089
58151130	155	1.62	Sushi, with vegetables and seafood		0.152	RAW	0.0%	0.152	0.132	0.000	0.020	0.000	0.152	0.000	0.076	0.076
58151150	10	0.1	Sushi, with seafood, no vegetables		0.158	RAW	0.0%	0.158	0.137	0.000	0.020	0.000	0.158	0.000	0.079	0.079
58155320	3	0.03	Seafood paella, Puerto Rican style	FISH, SNAPPER, MIXED SPECIES, RAW	0.034	RAW	0.0%	0.034	0.033	0.000	0.001	0.000	0.034	0.000	0.000	0.034
58155320			Seafood paella, Puerto Rican style	CRUSTACEANS, LOBSTER, NORTHERN, RAW	0.068	RAW	0.0%	0.068	0.003	0.000	0.065	0.068	0.000	0.000	0.068	0.000
58155320			Seafood paella, Puerto Rican style	CRUSTACEANS, SHRIMP, MIXED SPECIES, RAW	0.137	RAW	0.0%	0.137	0.024	0.000	0.113	0.137	0.000	0.068	0.068	0.000
58155320			Seafood paella, Puerto Rican style	MOLLUSKS, CLAM, MIXED SPECIES, RAW	0.018	RAW	0.0%	0.018	0.015	0.000	0.003	0.018	0.000	0.018	0.000	0.000
58304400	1	0.01	Linguini with vegetables and seafood in white wine sauce (diet frozen meal)	MOLLUSKS, CLAM, MIXED SPECIES, CANNED, DRAINED SOLIDS	0.120	CANNED	25.0%	0.160	0.134	0.000	0.026	0.160	0.000	0.160	0.000	0.000
58304400			Linguini with vegetables and seafood in white wine sauce (diet frozen meal)	MOLLUSKS, SCALLOP, (BAY AND SEA), COOKED, STEAMED	0.120	STEAMED	21.0%	0.152	0.000	0.000	0.152	0.152	0.000	0.152	0.000	0.000

Food code	Number of records in data	Percent of total fish records	Main food description	Fish ingredient description, if multiple ingredients	Proportion of recipe that is fish ingredient	Pre-processing of fish ingredient	Moisture loss due to pre-processing	Multiplier for Total Fish	Multiplier for marine fish	Multiplier for freshwater fish	Multiplier for estuarine fish	Multiplier for shellfish	Multiplier for finfish	Multiplier for trophic level 2	Multiplier for trophic level 3	Multiplier for trophic level 4
58407050	15	0.16	Instant soup, noodle with egg, shrimp or chicken		0.010	CANNED	25.0%	0.014	0.002	0.000	0.011	0.014	0.000	0.007	0.007	0.000
58409000	16	0.17	Noodle soup, with fish ball, shrimp, and dark green leafy vegetable	CRUSTACEANS, SHRIMP, MIXED SPECIES, COOKED, MOIST HEAT	0.026	COOKED MOIST HEAT	25.0%	0.035	0.006	0.000	0.029	0.035	0.000	0.017	0.017	0.000
58409000			Noodle soup, with fish ball, shrimp, and dark green leafy vegetable	CODFISH BALL OR CAKE	0.066	BAKED	25.0%	0.088	0.088	0.000	0.000	0.000	0.088	0.000	0.044	0.044
72116140	7	0.07	Caesar salad (with romaine)		0.038	CANNED	25.0%	0.051	0.000	0.000	0.051	0.000	0.051	0.025	0.025	0.000
72308000	10	0.1	Dark-green leafy vegetable soup with meat, Oriental style		0.000	COOKED MOIST HEAT	25.0%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75146000	1	0.01	Greek Salad		0.032	CANNED	25.0%	0.042	0.000	0.000	0.042	0.000	0.042	0.021	0.021	0.000

1247

1248

1249

1250

1251

**Usual Fish Consumption Rate Tables**

**Appendix C**

DRAFT Do not cite or quote

1253	<b>Table</b>	<b>Page</b>
1254		
1255	Table C-1. Total finfish and shellfish usual fish consumption rate estimates, all ages .....	C-1
1256		
1257	Table C-2. Total finfish and shellfish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-3
1258		
1259	Table C-3. Total finfish and shellfish usual fish consumption rate estimates, youth $< 21$ years.....	C-5
1260		
1261	Table C-4. Total finfish usual fish consumption rate estimates, all ages .....	C-7
1262	Table C-5. Total finfish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-9
1263		
1264	Table C-6. Total finfish usual fish consumption rate estimates, youth $< 21$ years .....	C-11
1265		
1266	Table C-7. Total shellfish usual fish consumption rate estimates, all ages .....	C-13
1267	Table C-8. Total shellfish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-15
1268		
1269	Table C-9. Total shellfish usual fish consumption rate estimates, youth $< 21$ years .....	C-17
1270		
1271	Table C-10. Marine fish usual fish consumption rate estimates, all ages .....	C-19
1272	Table C-11. Marine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-21
1273		
1274	Table C-12. Marine fish usual fish consumption rate estimates, youth $< 21$ years .....	C-23
1275		
1276	Table C-13. Freshwater fish usual fish consumption rate estimates, all ages .....	C-25
1277	Table C-14. Freshwater fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-27
1278		
1279	Table C-15. Freshwater fish usual fish consumption rate estimates, youth $< 21$ years .....	C-29
1280		
1281	Table C-16. Estuarine fish usual fish consumption rate estimates, all ages.....	C-31
1282	Table C-17. Estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-33
1283		
1284	Table C-18. Estuarine fish usual fish consumption rate estimates, youth $> 21$ years .....	C-35
1285		
1286	Table C-19. Freshwater + estuarine fish usual fish consumption rate estimates, all ages .....	C-37
1287		
1288	Table C-20. Freshwater + estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-39
1289		
1290	Table C-21. Freshwater + estuarine fish usual fish consumption rate estimates, youth $< 21$ years .....	C-41
1291		
1292	Table C-22. Marine + freshwater fish usual fish consumption rate estimates, all ages .....	C-43
1293		
1294	Table C-23. Marine + freshwater fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-45
1295		
1296	Table C-24. Marine + freshwater fish usual fish consumption rate estimates, youth $< 21$ years.....	C-47
1297		
1298	Table C-25. Marine + estuarine fish usual fish consumption rate estimates, all ages.....	C-49
1299		
1300	Table C-26. Marine + estuarine fish usual fish consumption rate estimates, adults $\geq 21$ years .....	C-51
1301		
1302	Table C-27. Marine + estuarine fish usual fish consumption rate estimates, youth $< 21$ years.....	C-53
1303		
1304	Table C-28. Trophic level 2 fish usual fish consumption rate estimates, all ages.....	C-55
1305		
1306	Table C-29. Trophic level 2 fish usual fish consumption rate estimates, adults $\geq 21$ years.....	C-57
1307		
1308	Table C-30. Trophic level 2 fish usual fish consumption rate estimates, youth $< 21$ years.....	C-59
1309		
1310	Table C-31. Trophic level 3 fish usual fish consumption rate estimates, all ages.....	C-61
1311		

1312  
1313

## Table of Contents (continued)

1314	<b>Table</b>		<b>Page</b>
1315			
1316	Table C-32.	Trophic level 3 fish usual fish consumption rate estimates, adults ≥21 years.....	C-63
1317			
1318	Table C-33.	Trophic level 3 fish usual fish consumption rate estimates, youth <21 years.....	C-65
1319			
1320	Table C-34.	Trophic level 4 fish usual fish consumption rate estimates, all ages.....	C-67
1321			
1322	Table C-35.	Trophic level 4 fish usual fish consumption rate estimates, adults ≥21 years.....	C-69
1323			
1324	Table C-36.	Trophic level 4 fish usual fish consumption rate estimates, youth <21 years.....	C-71
1325			
1326	Table C-37.	Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, all ages.....	C-73
1327			
1328	Table C-38.	Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years.....	C-75
1329			
1330	Table C-39.	Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years.....	C-77
1331			
1332	Table C-40.	Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, all ages.....	C-79
1333			
1334	Table C-41.	Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years.....	C-81
1335			
1336	Table C-42.	Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years.....	C-83
1337			
1338	Table C-43.	Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, all ages.....	C-85
1339			
1340	Table C-44.	Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years.....	C-87
1341			
1342	Table C-45.	Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years.....	C-89
1343			
1344	Table C-46.	Trophic level 2 marine fish usual fish consumption rate estimates, all ages.....	C-91
1345			
1346	Table C-47.	Trophic level 2 marine fish usual fish consumption rate estimates, adults ≥21 years.....	C-93
1347			
1348	Table C-48.	Trophic level 2 marine fish usual fish consumption rate estimates, youth <21 years.....	C-95
1349			
1350	Table C-49.	Trophic level 3 marine fish usual fish consumption rate estimates, all ages.....	C-97
1351			
1352	Table C-50.	Trophic level 3 marine fish usual fish consumption rate estimates, adults ≥21 years.....	C-99
1353			
1354	Table C-51.	Trophic level 3 marine fish usual fish consumption rate estimates, youth <21 years.....	C-101
1355			
1356	Table C-52.	Trophic level 4 marine fish usual fish consumption rate estimates, all ages.....	C-103
1357			
1358	Table C-53.	Trophic level 4 marine fish usual fish consumption rate estimates, adults ≥21 years.....	C-105
1359			
1360	Table C-54.	Trophic level 4 marine fish usual fish consumption rate estimates, youth <21 years.....	C-107
1361			
1362	Table C-55	Percent reporting fish consumption on either 24-hr recall, by fish type.....	C-109
1363			
1364	Table C-56	Percent reporting fish consumption on both 24-hr recalls, by fish type.....	C-110
1365			

**Table C-1. Total finfish and shellfish usual fish consumption rate estimates, all ages**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	17.11 (13.9,21.1)	3.96 (2.3,6.7)	11.89 (8.5,16.6)	23.95 (19.3,29.7)	40.47 (33.1,49.5)	52.64 (43.3,64.0)	60.91 (49.9,74.3)	80.14 (64.0,100.4)
<b>Gender</b>								
Female	15.29 (12.2,19.2)	3.56 (2.0,6.2)	10.84 (7.6,15.5)	21.67 (17.0,27.6)	35.99 (29.0,44.6)	46.59 (37.8,57.4)	54.10 (43.8,66.8)	68.01 (53.4,86.7)
Male	19.30 (15.8,23.6)	4.49 (2.7,7.4)	13.37 (9.7,18.4)	27.06 (21.8,33.6)	45.56 (37.5,55.4)	58.70 (48.1,71.6)	69.35 (56.7,84.8)	91.76 (74.0,113.8)
<b>Age</b>								
1 to <3 yrs	4.75 (2.7,8.3)	0.70 (0.4,1.4)	2.15 (1.2,4.0)	5.26 (3.4,8.2)	11.58 (7.0,19.1)	18.78 (9.9,35.7)	24.71 (12.1,50.5)	38.03 (17.6,82.2)
3 to <6 yrs	6.28 (3.7,10.6)	1.11 (0.5,2.7)	3.95 (1.5,10.2)	8.39 (4.7,15.1)	14.75 (9.8,22.2)	20.61 (14.0,30.3)	23.93 (17.5,32.7)	38.02 (23.6,61.3)
6 to <11 yrs	8.42 (5.1,14.0)	1.36 (0.8,2.5)	4.66 (2.5,8.9)	11.41 (6.7,19.4)	21.39 (12.6,36.2)	29.46 (17.6,49.3)	35.01 (21.2,57.7)	48.43 (28.2,83.1)
11 to <16 yrs	7.93 (5.5,11.4)	1.39 (0.8,2.3)	4.31 (2.6,7.3)	10.81 (7.3,16.1)	19.30 (12.8,29.1)	27.59 (18.4,41.3)	33.63 (22.5,50.3)	47.19 (30.5,73.1)
16 to <18 yrs	9.54 (6.8,13.3)	1.54 (0.9,2.6)	5.27 (3.1,9.0)	12.99 (8.9,18.9)	24.38 (17.7,33.5)	33.98 (23.5,49.1)	39.45 (27.7,56.2)	53.66 (37.2,77.4)
18 to <21 yrs	15.06 (8.7,26.2)	2.29 (1.3,3.9)	7.93 (4.5,13.9)	19.57 (11.2,34.3)	40.93 (19.2,87.1)	57.07 (28.0,116.3)	64.66 (37.7,110.9)	94.01 (50.7,174.4)
21 to <35 yrs	17.98 (12.9,25.0)	5.13 (2.2,11.9)	13.07 (7.3,23.4)	24.45 (17.2,34.8)	40.55 (30.9,53.2)	53.21 (41.8,67.7)	62.05 (49.9,77.2)	86.18 (66.5,111.6)
35 to <50 yrs	19.83 (16.2,24.3)	7.57 (5.2,11.0)	15.50 (12.4,19.4)	27.40 (22.3,33.7)	42.77 (34.0,53.8)	53.97 (41.8,69.7)	61.78 (46.3,82.4)	78.66 (55.0,112.5)
50 to <65 yrs	26.13 (19.1,35.8)	11.27 (6.3,20.3)	21.30 (14.5,31.2)	36.06 (26.3,49.4)	53.88 (40.6,71.5)	65.64 (51.1,84.3)	75.37 (57.6,98.5)	95.56 (71.2,128.2)
65+ yrs	18.26 (13.4,24.9)	6.72 (4.7,9.6)	13.90 (9.9,19.5)	25.24 (18.5,34.5)	39.64 (28.6,55.0)	51.67 (38.8,68.9)	58.70 (41.7,82.6)	72.65 (45.8,115.3)
<b>Income</b>								
<\$20,000	13.95 (11.5,17.0)	2.61 (1.8,3.9)	8.87 (6.6,12.0)	19.38 (15.6,24.1)	33.22 (27.2,40.6)	44.86 (36.7,54.9)	53.15 (42.8,66.0)	73.68 (57.6,94.2)
>\$20,000	17.62 (14.3,21.7)	4.36 (2.5,7.6)	12.46 (9.0,17.3)	24.63 (19.9,30.4)	41.46 (33.9,50.8)	53.75 (44.0,65.7)	61.62 (50.2,75.7)	80.81 (64.0,102.0)
Income unknown	19.81 (9.5,41.3)	4.53 (1.2,16.7)	14.21 (4.7,42.8)	28.68 (12.7,64.6)	46.27 (25.4,84.3)	58.22 (35.5,95.5)	67.81 (41.9,109.7)	87.44 (54.6,140.0)
<b>Income, finer detail</b>								
<\$20,000	13.95 (11.5,17.0)	2.61 (1.8,3.9)	8.87 (6.6,12.0)	19.38 (15.6,24.1)	33.22 (27.2,40.6)	44.86 (36.7,54.9)	53.15 (42.8,66.0)	73.68 (57.6,94.2)
\$20k-\$45k	15.33 (12.3,19.1)	3.48 (2.1,5.9)	10.72 (7.1,16.1)	21.15 (16.9,26.5)	35.37 (28.8,43.5)	47.77 (38.9,58.7)	55.46 (45.4,67.7)	74.03 (59.5,92.1)
\$45k-\$75k	16.74 (13.0,21.5)	4.00 (2.4,6.6)	11.75 (8.3,16.7)	23.67 (18.1,31.0)	39.42 (30.8,50.4)	50.65 (39.0,65.7)	59.99 (46.0,78.2)	78.48 (57.4,107.3)
\$75k+	20.09 (16.3,24.7)	5.59 (3.1,10.2)	14.63 (11.1,19.3)	28.55 (23.1,35.3)	46.50 (37.8,57.2)	58.48 (47.8,71.6)	66.62 (53.7,82.7)	87.10 (69.3,109.5)
>\$20,000	17.86 (11.0,29.1)	5.02 (2.4,10.5)	13.68 (6.6,28.2)	25.83 (14.8,45.2)	39.77 (26.1,60.7)	50.28 (33.7,74.9)	58.04 (39.6,85.0)	74.62 (51.0,109.2)
Inc Ref/DK	19.55 (10.0,38.3)	4.56 (1.5,13.5)	14.67 (5.1,41.8)	28.36 (14.0,57.5)	44.94 (26.2,77.1)	56.63 (35.4,90.7)	66.65 (39.6,112.1)	77.62 (54.7,110.2)
Inc missing	20.31 (6.8,60.2)	4.50 (0.6,32.2)	13.06 (3.2,53.0)	29.07 (8.6,98.2)	49.43 (17.8,137.3)	59.15 (28.9,121.2)	67.90 (35.2,131.0)	103.07 (42.1,252.3)
<b>Race/Ethnicity</b>								
Mexican American	15.00 (11.3,20.0)	2.83 (1.7,4.6)	9.73 (6.0,15.7)	21.37 (15.3,29.8)	36.59 (27.7,48.4)	48.34 (37.0,63.2)	56.48 (43.5,73.3)	72.89 (53.7,98.9)
Other Hispanic	15.27 (11.4,20.5)	2.61 (1.7,4.0)	9.36 (6.7,13.1)	21.40 (15.9,28.9)	39.46 (26.8,58.2)	52.82 (34.8,80.3)	61.27 (41.3,90.8)	74.10 (52.0,105.5)
White	16.27 (13.2,20.0)	3.93 (2.2,7.1)	11.47 (8.3,15.8)	22.81 (18.5,28.2)	38.05 (30.9,46.8)	49.54 (39.7,61.8)	57.65 (45.6,72.8)	75.37 (57.9,98.0)
Black	17.92 (14.6,22.0)	4.89 (3.2,7.5)	13.33 (9.7,18.4)	25.44 (20.2,32.1)	41.21 (33.5,50.7)	51.80 (42.7,62.9)	60.52 (49.8,73.6)	76.51 (59.9,97.8)
Other race	29.04 (19.2,43.8)	8.90 (3.3,23.7)	22.06 (12.2,40.0)	42.27 (25.4,70.2)	62.13 (47.5,81.2)	81.20 (59.5,110.8)	95.56 (70.1,130.2)	122.79 (89.0,169.5)

369  
370

**Table C-1. Total finfish and shellfish usual fish consumption rate estimates, all ages (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25th	50th	75th	90th	95th	97th	99th
<b>Region</b>								
Midwest	12.26 (9.5,15.8)	2.67 (1.6,4.6)	8.65 (5.7,13.1)	17.16 (13.0,22.7)	28.37 (21.3,37.7)	37.34 (27.6,50.5)	43.98 (32.0,60.4)	58.80 (41.9,82.5)
Northeast	21.17 (16.4,27.4)	4.47 (3.1,6.5)	14.95 (11.2,19.9)	30.92 (23.4,40.8)	50.76 (37.9,68.0)	62.99 (48.5,81.8)	72.32 (55.9,93.5)	92.62 (70.2,122.2)
South	17.81 (13.8,22.9)	4.32 (2.4,7.7)	12.73 (8.3,19.5)	24.67 (19.1,31.9)	41.00 (32.8,51.3)	53.48 (42.9,66.6)	62.38 (50.2,77.5)	87.13 (66.6,114.0)
West	18.51 (14.5,23.7)	4.85 (2.7,8.9)	13.67 (9.8,19.1)	26.65 (20.3,35.1)	43.17 (33.5,55.7)	54.97 (43.1,70.2)	61.36 (48.2,78.1)	75.90 (54.1,106.4)
<b>Coastal Status</b>								
Noncoastal	15.83 (11.8,21.2)	3.58 (2.0,6.5)	11.08 (7.1,17.3)	22.11 (16.5,29.6)	37.35 (28.4,49.0)	48.97 (37.4,64.1)	56.99 (43.8,74.1)	75.46 (57.4,99.2)
Coastal	19.13 (15.9,23.0)	4.62 (3.2,6.7)	13.60 (10.8,17.2)	27.21 (22.3,33.2)	44.77 (36.8,54.5)	57.56 (46.5,71.2)	66.42 (53.0,83.2)	87.00 (67.2,112.7)
<b>Coastal/Inland Region</b>								
Pacific	18.18 (14.4,22.9)	4.04 (2.6,6.3)	13.17 (9.7,17.9)	26.52 (20.9,33.7)	43.33 (35.0,53.7)	55.12 (44.2,68.7)	61.58 (46.1,82.2)	75.91 (47.6,121.1)
Atlantic	20.01 (14.2,28.2)	5.56 (3.6,8.5)	14.81 (10.3,21.4)	28.43 (19.7,41.0)	45.87 (32.7,64.4)	58.00 (41.1,81.8)	65.82 (45.5,95.2)	84.62 (57.8,123.9)
Gulf of Mexico	24.33 (15.2,38.8)	5.88 (2.1,16.8)	16.26 (8.2,32.2)	33.83 (19.4,58.9)	57.49 (35.9,92.1)	74.70 (49.0,113.9)	89.57 (57.2,140.1)	118.97 (75.7,187.1)
Great Lakes	13.62 (9.5,19.4)	2.80 (1.9,4.2)	9.00 (6.2,13.1)	19.04 (12.9,28.2)	32.51 (21.7,48.7)	42.77 (28.1,65.0)	50.61 (34.2,74.9)	69.85 (49.3,99.0)
Inland Northeast	21.18 (13.6,33.0)	3.60 (2.2,5.9)	14.03 (9.2,21.4)	31.24 (19.3,50.7)	52.01 (31.1,86.9)	65.49 (40.7,105.3)	75.70 (47.2,121.5)	95.75 (63.0,145.4)
Inland Midwest	11.87 (8.5,16.5)	2.63 (1.3,5.2)	8.55 (4.9,14.8)	16.63 (11.7,23.6)	27.17 (20.5,36.1)	36.12 (26.9,48.6)	42.39 (31.6,56.8)	55.02 (40.4,74.9)
Inland South	15.50 (11.1,21.6)	3.60 (1.9,6.9)	11.50 (6.2,21.3)	21.92 (15.2,31.6)	35.01 (27.5,44.5)	45.54 (36.3,57.2)	52.47 (42.4,64.9)	68.44 (53.3,87.9)
Inland West	18.84 (12.4,28.7)	5.69 (2.0,15.8)	14.04 (8.6,23.0)	26.71 (17.5,40.7)	43.03 (28.4,65.1)	54.69 (37.0,80.9)	61.28 (43.0,87.3)	74.90 (51.9,108.2)

371  
372

DRAFT DO NOT DISTRIBUTE

373  
374**Table C-2. Total finfish and shellfish usual fish consumption rate estimates, adults ≥21 years**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	20.51 (16.9,24.9)	7.27 (4.5,11.7)	15.73 (11.9,20.7)	28.31 (23.1,34.6)	44.83 (37.1,54.2)	56.75 (46.7,69.0)	65.15 (52.8,80.3)	85.30 (67.9,107.2)
<b>Gender</b>								
Female	18.11 (14.6,22.5)	6.47 (3.8,11.1)	14.01 (10.4,18.8)	25.18 (20.2,31.4)	39.85 (32.2,49.3)	50.02 (40.6,61.6)	57.56 (46.5,71.2)	71.24 (54.6,93.0)
Male	23.56 (19.4,28.5)	8.71 (5.6,13.6)	18.11 (14.1,23.3)	32.29 (26.5,39.4)	50.97 (42.0,61.8)	64.06 (52.2,78.7)	74.82 (60.9,92.0)	97.15 (77.2,122.2)
<b>Age</b>								
21 to <35 yrs	17.98 (12.9,25.0)	5.13 (2.2,11.9)	13.07 (7.3,23.4)	24.45 (17.2,34.8)	40.55 (30.9,53.2)	53.21 (41.8,67.7)	62.05 (49.9,77.2)	86.18 (66.5,111.6)
35 to <50 yrs	19.83 (16.2,24.3)	7.57 (5.2,11.0)	15.50 (12.4,19.4)	27.40 (22.3,33.7)	42.77 (34.0,53.8)	53.97 (41.8,69.7)	61.78 (46.3,82.4)	78.66 (55.0,112.5)
50 to <65 yrs	26.13 (19.1,35.8)	11.27 (6.3,20.3)	21.30 (14.5,31.2)	36.06 (26.3,49.4)	53.88 (40.6,71.5)	65.64 (51.1,84.3)	75.37 (57.6,98.5)	95.56 (71.2,128.2)
65+ yrs	18.26 (13.4,24.9)	6.72 (4.7,9.6)	13.90 (9.9,19.5)	25.24 (18.5,34.5)	39.64 (28.6,55.0)	51.67 (38.8,68.9)	58.70 (41.7,82.6)	72.65 (45.8,115.3)
<b>WCA (13-49 years)</b>	15.34 (12.2,19.3)	4.01 (2.2,7.3)	11.21 (7.7,16.4)	21.53 (16.8,27.5)	34.99 (28.6,42.9)	45.62 (37.2,56.0)	53.36 (43.0,66.2)	67.82 (53.6,85.8)
<b>Income</b>								
<\$20,000	16.88 (13.9,20.6)	4.47 (2.8,7.1)	11.97 (9.2,15.6)	23.26 (18.8,28.7)	37.42 (30.2,46.4)	48.81 (38.5,61.9)	57.88 (46.0,72.7)	83.56 (63.1,110.6)
>\$20,000	21.06 (17.4,25.5)	7.79 (5.0,12.1)	16.30 (12.5,21.2)	29.00 (23.7,35.5)	45.74 (37.8,55.4)	57.55 (47.1,70.3)	65.62 (52.7,81.7)	84.62 (65.7,109.0)
Income unknown	23.40 (11.4,47.9)	8.11 (1.8,36.8)	18.61 (6.8,51.1)	31.80 (16.9,59.8)	52.01 (27.4,98.8)	63.47 (37.9,106.4)	72.31 (44.9,116.4)	90.69 (57.3,143.4)
<b>Income, finer detail</b>								
<\$20,000	16.88 (13.9,20.6)	4.47 (2.8,7.1)	11.97 (9.2,15.6)	23.26 (18.8,28.7)	37.42 (30.2,46.4)	48.81 (38.5,61.9)	57.88 (46.0,72.7)	83.56 (63.1,110.6)
\$20k-\$45k	18.08 (14.8,22.0)	6.32 (3.6,11.1)	13.81 (10.1,18.8)	24.56 (19.9,30.3)	39.26 (32.2,47.8)	51.10 (41.9,62.3)	59.00 (48.2,72.2)	77.40 (60.0,99.9)
\$45k-\$75k	19.92 (15.6,25.4)	6.94 (4.6,10.5)	15.30 (11.1,21.1)	27.60 (21.2,35.9)	43.26 (34.0,55.0)	55.12 (42.5,71.4)	63.46 (48.0,84.0)	81.60 (58.5,113.9)
\$75k+	24.34 (20.0,29.6)	9.99 (6.9,14.4)	19.35 (15.4,24.3)	33.90 (27.5,41.9)	51.38 (41.8,63.1)	62.26 (50.2,77.3)	71.28 (56.9,89.3)	90.52 (69.7,117.6)
>\$20,000	20.61 (13.2,32.3)	7.58 (3.9,14.6)	16.85 (9.2,30.9)	27.98 (18.5,42.3)	42.57 (28.7,63.2)	54.01 (36.3,80.3)	61.71 (41.6,91.5)	83.36 (52.9,131.4)
Inc Ref/DK	22.97 (11.8,44.7)	8.18 (2.1,32.2)	18.29 (7.6,44.0)	31.87 (17.2,58.9)	51.22 (27.2,96.5)	62.13 (36.6,105.5)	72.31 (40.2,130.2)	85.30 (55.2,131.7)
Inc missing	24.35 (8.4,71.0)	7.83 (1.0,59.5)	19.30 (4.3,87.3)	31.80 (12.2,83.1)	54.39 (21.2,139.3)	63.67 (30.6,132.5)	89.96 (29.1,277.9)	108.79 (39.6,299.0)
<b>Race/Ethnicity</b>								
Mexican American	20.10 (14.5,27.8)	6.35 (3.0,13.3)	16.02 (9.6,26.7)	28.10 (19.9,39.7)	43.86 (32.8,58.7)	55.33 (42.2,72.5)	63.75 (48.6,83.7)	79.80 (56.4,112.8)
Other Hispanic	20.35 (14.4,28.7)	6.89 (3.5,13.6)	15.06 (10.4,21.7)	27.81 (20.0,38.7)	46.89 (30.9,71.2)	59.47 (39.2,90.2)	67.60 (46.5,98.3)	79.52 (55.0,115.1)
White	19.01 (15.6,23.1)	6.89 (4.4,10.9)	14.59 (11.4,18.7)	26.22 (21.4,32.1)	41.70 (33.9,51.3)	52.74 (41.7,66.7)	60.42 (46.5,78.5)	78.18 (58.7,104.1)
Black	22.22 (17.6,28.0)	8.89 (5.2,15.3)	17.85 (12.9,24.6)	30.74 (24.2,39.0)	46.59 (38.2,56.9)	58.00 (47.6,70.7)	66.16 (54.0,81.1)	82.63 (64.4,106.1)
Other race	34.96 (24.2,50.5)	15.15 (7.2,31.9)	28.78 (17.6,47.1)	49.09 (31.3,77.0)	71.11 (51.3,98.5)	89.81 (66.0,122.1)	105.37 (75.2,147.7)	131.76 (89.0,195.1)

375  
376

377  
378

**Table C-2. Total finfish and shellfish usual fish consumption rate estimates, adults ≥21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	14.73 (11.4,19.0)	5.25 (3.2,8.7)	11.33 (8.1,15.8)	20.03 (15.3,26.2)	31.52 (23.5,42.4)	41.40 (31.2,54.9)	46.68 (32.8,66.5)	63.61 (47.1,85.9)
Northeast	25.26 (19.7,32.4)	9.03 (5.7,14.3)	20.29 (15.1,27.2)	35.94 (27.8,46.5)	54.03 (42.1,69.3)	66.55 (51.8,85.5)	75.85 (58.3,98.8)	94.75 (70.2,128.0)
South	21.45 (16.8,27.5)	7.92 (4.2,14.8)	16.60 (11.6,23.7)	29.05 (22.9,36.8)	45.64 (36.9,56.5)	58.23 (47.0,72.2)	67.39 (53.9,84.3)	93.86 (69.9,126.1)
West	22.09 (17.4,28.0)	8.74 (5.7,13.4)	17.66 (13.3,23.5)	30.76 (23.9,39.5)	47.81 (36.8,62.1)	58.34 (46.3,73.5)	65.39 (50.9,84.1)	78.63 (53.8,115.0)
<b>Coastal Status</b>								
Noncoastal	18.95 (14.4,24.9)	6.67 (3.5,12.6)	14.52 (10.0,21.1)	25.95 (20.0,33.6)	41.75 (31.9,54.7)	52.71 (40.8,68.0)	60.55 (46.8,78.3)	78.78 (59.3,104.6)
Coastal	22.95 (18.9,27.9)	8.59 (6.3,11.7)	17.73 (14.2,22.2)	31.48 (25.4,39.0)	49.69 (40.5,61.0)	62.13 (49.9,77.4)	71.62 (57.1,89.9)	92.02 (70.1,120.9)
<b>Coastal/Inland Region</b>								
Pacific	21.41 (16.7,27.4)	7.79 (5.3,11.5)	17.15 (12.8,23.0)	30.08 (23.6,38.3)	47.56 (38.5,58.7)	57.07 (43.7,74.4)	64.78 (47.7,88.0)	78.00 (46.7,130.4)
Atlantic	24.15 (17.1,34.0)	9.80 (6.6,14.6)	19.47 (13.7,27.7)	33.19 (23.0,47.9)	50.48 (35.3,72.2)	63.05 (45.1,88.2)	71.48 (50.4,101.4)	91.63 (65.4,128.5)
Gulf of Mexico	29.15 (19.3,44.1)	10.20 (5.0,20.8)	21.69 (12.4,37.8)	40.39 (24.3,67.1)	63.32 (40.9,98.1)	82.49 (52.9,128.6)	97.58 (59.7,159.5)	126.36 (78.3,203.9)
Great Lakes	16.85 (12.2,23.3)	5.71 (3.6,9.1)	12.36 (8.4,18.3)	23.38 (16.8,32.6)	36.31 (24.4,54.0)	47.37 (33.0,68.0)	55.98 (40.1,78.1)	78.34 (59.4,103.3)
Inland Northeast	25.07 (15.9,39.4)	7.36 (4.0,13.5)	19.85 (12.0,32.8)	35.86 (22.9,56.2)	54.30 (35.6,82.9)	69.02 (43.9,108.6)	78.14 (50.9,119.9)	95.75 (63.1,145.2)
Inland Midwest	14.16 (10.5,19.1)	5.13 (2.7,9.8)	11.12 (7.2,17.2)	19.30 (14.3,26.1)	29.65 (22.4,39.2)	40.05 (29.7,54.0)	45.24 (33.9,60.3)	59.71 (44.6,79.9)
Inland South	18.72 (13.3,26.3)	7.02 (2.8,17.5)	15.03 (8.7,26.0)	25.43 (18.8,34.3)	39.37 (30.9,50.2)	49.99 (40.0,62.4)	56.86 (45.8,70.6)	74.52 (57.3,96.9)
Inland West	22.82 (15.0,34.7)	9.61 (4.7,19.5)	18.22 (11.8,28.1)	32.02 (20.3,50.4)	48.00 (31.8,72.4)	59.09 (40.4,86.4)	65.89 (46.1,94.2)	79.17 (54.4,115.2)

379

380

381  
382

**Table C-3. Total finfish and shellfish usual fish consumption rate estimates, youth <21 years**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	8.67 (6.1,12.3)	1.34 (0.8,2.2)	4.35 (2.6,7.3)	11.09 (7.5,16.4)	21.74 (15.7,30.2)	31.59 (22.6,44.2)	40.19 (28.1,57.5)	59.13 (41.7,83.9)
<b>Gender</b>								
Female	7.58 (5.2,11.0)	1.17 (0.7,1.9)	3.71 (2.2,6.1)	9.85 (6.5,15.0)	19.34 (13.5,27.7)	27.86 (19.4,40.1)	34.69 (24.3,49.5)	51.01 (34.1,76.3)
Male	9.81 (6.9,13.9)	1.59 (0.9,2.7)	5.00 (3.1,8.2)	12.32 (8.7,17.5)	23.98 (17.7,32.4)	35.18 (25.3,49.0)	45.73 (31.2,67.0)	66.75 (45.9,97.1)
<b>Age</b>								
1 to <3 yrs	4.75 (2.7,8.3)	0.70 (0.4,1.4)	2.15 (1.2,4.0)	5.26 (3.4,8.2)	11.58 (7.0,19.1)	18.78 (9.9,35.7)	24.71 (12.1,50.5)	38.03 (17.6,82.2)
3 to <6 yrs	6.28 (3.7,10.6)	1.11 (0.5,2.7)	3.95 (1.5,10.2)	8.39 (4.7,15.1)	14.75 (9.8,22.2)	20.61 (14.0,30.3)	23.93 (17.5,32.7)	38.02 (23.6,61.3)
6 to <11 yrs	8.42 (5.1,14.0)	1.36 (0.8,2.5)	4.66 (2.5,8.9)	11.41 (6.7,19.4)	21.39 (12.6,36.2)	29.46 (17.6,49.3)	35.01 (21.2,57.7)	48.43 (28.2,83.1)
11 to <16 yrs	7.93 (5.5,11.4)	1.39 (0.8,2.3)	4.31 (2.6,7.3)	10.81 (7.3,16.1)	19.30 (12.8,29.1)	27.59 (18.4,41.3)	33.63 (22.5,50.3)	47.19 (30.5,73.1)
16 to <18 yrs	9.54 (6.8,13.3)	1.54 (0.9,2.6)	5.27 (3.1,9.0)	12.99 (8.9,18.9)	24.38 (17.7,33.5)	33.98 (23.5,49.1)	39.45 (27.7,56.2)	53.66 (37.2,77.4)
18 to <21 yrs	15.06 (8.7,26.2)	2.29 (1.3,3.9)	7.93 (4.5,13.9)	19.57 (11.2,34.3)	40.93 (19.2,87.1)	57.07 (28.0,116.3)	64.66 (37.7,110.9)	94.01 (50.7,174.4)
<b>Income</b>								
<\$20,000	7.91 (6.2,10.1)	1.28 (0.9,1.9)	3.96 (2.9,5.4)	9.87 (7.2,13.5)	19.93 (14.9,26.6)	29.80 (22.6,39.2)	37.06 (28.4,48.4)	54.98 (38.4,78.7)
>\$20,000	8.72 (6.0,12.7)	1.35 (0.8,2.3)	4.37 (2.5,7.7)	11.18 (7.3,17.2)	21.67 (15.3,30.8)	31.06 (22.3,43.2)	40.35 (27.5,59.2)	60.15 (41.0,88.3)
Income unknown	11.61 (4.6,29.4)	1.52 (0.8,3.0)	5.93 (1.8,19.7)	15.85 (4.4,57.1)	32.59 (10.1,104.8)	41.74 (18.7,93.2)	45.13 (26.9,75.8)	59.71 (34.8,102.5)
<b>Income, finer detail</b>								
<\$20,000	7.91 (6.2,10.1)	1.28 (0.9,1.9)	3.96 (2.9,5.4)	9.87 (7.2,13.5)	19.93 (14.9,26.6)	29.80 (22.6,39.2)	37.06 (28.4,48.4)	54.98 (38.4,78.7)
\$20k-\$45k	8.43 (5.1,13.8)	1.30 (0.8,2.2)	4.01 (2.3,6.9)	10.59 (6.3,17.9)	21.21 (13.0,34.7)	30.33 (19.4,47.4)	39.75 (22.5,70.2)	60.35 (33.1,110.1)
\$45k-\$75k	7.87 (5.5,11.2)	1.18 (0.7,2.0)	4.09 (2.2,7.7)	10.06 (6.9,14.8)	19.44 (13.5,28.0)	27.56 (17.4,43.6)	35.52 (22.4,56.2)	52.71 (30.1,92.4)
\$75k+	9.49 (6.3,14.4)	1.52 (0.8,2.9)	4.85 (2.6,9.0)	12.14 (7.9,18.6)	23.21 (16.2,33.3)	33.58 (23.3,48.5)	43.87 (28.1,68.6)	62.46 (43.3,90.2)
>\$20,000	8.99 (5.4,15.0)	1.94 (0.7,5.6)	5.87 (2.8,12.1)	12.14 (6.9,21.4)	20.70 (12.8,33.5)	31.51 (15.8,62.8)	33.69 (16.2,69.9)	52.51 (23.4,117.8)
Inc Ref/DK	10.24 (4.1,25.5)	1.36 (0.7,2.8)	5.12 (1.9,13.6)	15.04 (3.6,62.1)	27.82 (9.2,84.3)	37.87 (14.6,98.0)	41.74 (21.8,79.8)	47.50 (27.0,83.6)
Inc missing	13.52 (3.6,50.6)	1.58 (0.5,5.3)	7.10 (1.1,44.3)	18.72 (3.2,111.0)	38.96 (7.6,200.9)	43.77 (15.8,121.6)	55.87 (22.1,141.5)	67.81 (26.8,171.5)
<b>Race/Ethnicity</b>								
Mexican American	7.15 (5.2,9.8)	1.26 (0.8,1.9)	3.91 (2.6,5.9)	9.37 (6.9,12.8)	17.52 (12.4,24.8)	24.32 (15.5,38.2)	30.52 (19.1,48.7)	46.09 (29.8,71.3)
Other Hispanic	6.03 (3.2,11.5)	0.85 (0.3,2.3)	2.67 (1.1,6.5)	7.15 (3.0,17.2)	14.74 (6.7,32.2)	23.08 (12.9,41.4)	29.86 (17.9,49.9)	50.44 (28.3,89.8)
White	8.21 (4.7,14.3)	1.22 (0.6,2.4)	3.88 (1.9,7.8)	10.29 (5.6,18.9)	20.80 (12.0,36.0)	30.18 (18.0,50.6)	39.51 (21.8,71.7)	60.37 (32.2,113.1)
Black	9.30 (6.6,13.2)	2.00 (1.3,3.1)	6.23 (4.3,9.0)	12.72 (8.8,18.3)	21.89 (14.8,32.3)	29.57 (20.1,43.4)	35.05 (22.9,53.6)	47.52 (29.4,76.8)
Other race	16.36 (9.2,29.2)	2.81 (1.2,6.4)	10.90 (3.7,32.5)	22.57 (11.7,43.6)	40.64 (23.6,70.0)	55.17 (34.7,87.6)	60.53 (44.3,82.6)	72.44 (46.8,112.2)

383  
384  
385  
386

387  
388

**Table C-3. Total finfish and shellfish usual fish consumption rate estimates, youth <21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	6.00 (4.4,8.2)	1.04 (0.5,2.2)	2.96 (1.8,5.0)	7.86 (5.5,11.2)	15.39 (10.8,21.8)	21.31 (12.6,36.0)	27.34 (16.1,46.4)	37.78 (17.4,82.0)
Northeast	10.47 (6.2,17.6)	1.39 (1.0,2.0)	4.55 (3.2,6.4)	11.90 (9.1,15.6)	27.48 (14.9,50.7)	44.91 (16.8,119.8)	56.99 (19.5,166.8)	75.70 (27.8,206.1)
South	8.52 (6.0,12.1)	1.50 (0.9,2.5)	4.51 (2.9,7.1)	11.37 (7.6,17.0)	21.20 (14.9,30.1)	29.01 (21.2,39.7)	35.49 (26.2,48.0)	54.18 (37.3,78.7)
West	10.37 (5.8,18.6)	1.67 (0.8,3.6)	5.52 (2.3,13.3)	13.84 (6.6,28.8)	26.32 (14.4,48.1)	38.80 (20.4,73.8)	47.68 (26.2,86.8)	60.35 (40.7,89.6)
<b>Coastal Status</b>								
Noncoastal	8.16 (5.2,12.9)	1.28 (0.8,2.1)	4.15 (2.3,7.6)	10.65 (6.5,17.5)	20.03 (13.3,30.2)	29.05 (18.6,45.3)	38.02 (21.7,66.7)	57.74 (30.6,108.9)
Coastal	9.50 (7.3,12.4)	1.51 (0.9,2.6)	4.66 (3.1,7.0)	12.09 (8.8,16.5)	24.50 (18.6,32.2)	34.54 (26.3,45.3)	43.09 (33.3,55.8)	60.79 (46.0,80.3)
<b>Coastal/Inland Region</b>								
Pacific	9.78 (6.2,15.4)	1.16 (0.6,2.1)	4.00 (2.3,6.9)	11.67 (6.7,20.2)	26.85 (15.2,47.4)	41.27 (23.0,74.2)	52.71 (28.5,97.4)	61.91 (35.8,107.1)
Atlantic	8.79 (6.3,12.3)	1.65 (1.0,2.7)	5.20 (3.4,8.0)	11.74 (8.0,17.2)	22.30 (16.2,30.7)	29.99 (21.1,42.6)	35.79 (25.0,51.3)	47.37 (30.8,72.9)
Gulf of Mexico	13.69 (4.7,39.6)	2.22 (0.6,7.8)	7.48 (1.9,29.5)	18.04 (5.2,63.0)	33.01 (11.7,93.2)	49.90 (17.9,139.2)	59.95 (25.9,138.5)	93.19 (36.1,240.2)
Great Lakes	6.44 (2.6,16.2)	1.23 (0.5,2.8)	3.18 (2.0,5.1)	8.23 (3.9,17.6)	17.23 (6.1,48.3)	23.51 (6.6,83.2)	29.62 (8.5,103.6)	40.64 (10.5,157.3)
Inland Northeast	10.84 (5.6,21.0)	1.17 (0.6,2.1)	3.81 (1.9,7.6)	10.21 (6.0,17.3)	29.83 (12.5,70.9)	56.99 (11.0,294.1)	67.90 (14.3,322.7)	94.01 (19.5,452.4)
Inland Midwest	5.85 (3.6,9.4)	1.01 (0.4,2.4)	2.90 (1.4,6.1)	7.76 (4.1,14.6)	14.76 (9.4,23.1)	20.93 (14.0,31.4)	26.71 (16.9,42.3)	36.97 (24.1,56.7)
Inland South	7.28 (5.1,10.3)	1.32 (0.8,2.2)	3.87 (2.4,6.1)	10.39 (6.5,16.7)	18.37 (12.9,26.2)	23.88 (16.8,33.9)	29.55 (21.3,40.9)	42.55 (30.4,59.7)
Inland West	10.85 (4.6,25.4)	2.15 (0.7,6.4)	6.93 (1.9,25.7)	14.68 (6.0,35.8)	25.59 (12.2,53.7)	37.42 (15.9,87.9)	43.55 (19.9,95.3)	57.96 (29.4,114.1)

389  
390

DRAFT DOCUMENT

391  
392

**Table C-4. Total finfish usual fish consumption rate estimates, all ages**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total Population</b>	11.18 (8.8,14.1)	2.39 (1.4,4.0)	7.29 (5.2,10.2)	15.15 (11.8,19.5)	26.57 (20.9,33.8)	35.86 (28.2,45.6)	43.35 (34.1,55.2)	59.25 (46.7,75.2)
<b>Gender</b>								
Female	10.08 (7.9,12.9)	2.14 (1.3,3.6)	6.68 (4.8,9.4)	13.86 (10.7,17.9)	23.97 (18.6,30.8)	31.84 (24.6,41.1)	38.17 (29.4,49.6)	52.78 (40.1,69.4)
Male	12.50 (9.8,15.9)	2.74 (1.6,4.8)	8.15 (5.7,11.6)	16.80 (12.9,21.8)	29.63 (23.3,37.7)	40.55 (31.8,51.6)	48.38 (38.1,61.5)	68.72 (54.1,87.3)
<b>Age</b>								
1 to <3 yrs	3.09 (2.0,4.8)	0.43 (0.2,0.8)	1.32 (0.7,2.4)	3.50 (2.2,5.6)	7.82 (4.9,12.4)	12.20 (7.5,19.9)	16.42 (9.3,28.9)	24.47 (14.9,40.1)
3 to <6 yrs	4.01 (2.4,6.8)	0.69 (0.2,2.0)	2.25 (0.9,5.7)	5.07 (2.7,9.4)	9.43 (6.2,14.3)	13.56 (9.3,19.9)	17.25 (11.6,25.6)	26.87 (17.6,41.0)
6 to <11 yrs	6.01 (3.5,10.2)	0.96 (0.5,2.0)	3.15 (1.6,6.1)	7.91 (4.5,13.9)	15.26 (8.9,26.2)	21.61 (12.4,37.8)	26.14 (14.8,46.2)	37.04 (21.3,64.5)
11 to <16 yrs	5.15 (3.3,7.9)	0.86 (0.5,1.5)	2.67 (1.5,4.8)	6.90 (4.1,11.7)	12.60 (8.2,19.3)	18.06 (11.9,27.4)	22.82 (15.0,34.7)	31.75 (19.4,52.0)
16 to <18 yrs	6.04 (4.2,8.7)	0.81 (0.4,1.6)	2.88 (1.7,4.8)	7.76 (5.1,11.7)	15.01 (10.0,22.5)	22.53 (15.5,32.8)	28.20 (18.9,42.1)	41.37 (26.1,65.6)
18 to <21 yrs	9.59 (5.6,16.4)	1.32 (0.7,2.5)	4.35 (2.6,7.3)	11.07 (6.7,18.1)	23.27 (13.2,41.0)	38.86 (19.6,77.2)	50.08 (23.0,109.2)	83.28 (30.1,230.5)
21 to <35 yrs	11.86 (8.2,17.2)	3.13 (1.2,7.9)	7.80 (4.5,13.4)	15.74 (10.5,23.6)	27.51 (19.6,38.7)	36.73 (27.6,49.0)	45.27 (33.5,61.1)	61.69 (46.4,82.1)
35 to <50 yrs	12.17 (9.4,15.8)	4.21 (3.0,5.8)	9.04 (7.0,11.7)	16.22 (12.1,21.8)	26.57 (19.6,35.9)	35.48 (26.6,47.3)	41.97 (31.2,56.4)	55.74 (40.8,76.2)
50 to <65 yrs	17.70 (12.4,25.2)	7.16 (3.8,13.5)	13.66 (9.1,20.5)	23.96 (16.9,34.0)	37.45 (27.0,52.0)	47.14 (34.5,64.4)	54.81 (39.8,75.5)	70.19 (51.2,96.2)
65+ yrs	12.33 (8.1,18.8)	4.42 (2.9,6.6)	9.23 (6.1,13.9)	16.68 (10.8,25.7)	26.94 (17.2,42.2)	34.85 (21.6,56.1)	41.21 (25.8,65.9)	54.23 (31.7,92.6)
<b>Income</b>								
<\$20,000	9.39 (7.4,11.9)	1.65 (1.0,2.6)	5.51 (4.0,7.6)	12.35 (9.5,16.0)	22.73 (17.8,29.1)	31.29 (24.4,40.1)	38.51 (30.1,49.2)	55.76 (42.6,73.0)
>\$20,000	11.48 (9.0,14.6)	2.58 (1.6,4.3)	7.65 (5.5,10.7)	15.64 (12.1,20.2)	27.07 (21.2,34.6)	36.45 (28.5,46.6)	43.77 (34.2,56.1)	59.25 (46.0,76.4)
Income unknown	12.36 (6.1,25.1)	2.60 (0.7,9.4)	8.10 (2.9,22.9)	17.15 (7.6,38.5)	29.77 (15.8,56.2)	40.33 (21.8,74.6)	49.31 (25.6,95.1)	70.18 (34.7,142.1)
<b>Income, finer detail</b>								
<\$20,000	9.39 (7.4,11.9)	1.65 (1.0,2.6)	5.51 (4.0,7.6)	12.35 (9.5,16.0)	22.73 (17.8,29.1)	31.29 (24.4,40.1)	38.51 (30.1,49.2)	55.76 (42.6,73.0)
\$20k-\$45k	10.17 (7.9,13.1)	2.14 (1.4,3.4)	6.65 (4.8,9.2)	13.59 (10.2,18.0)	23.65 (17.5,32.0)	32.24 (23.7,43.8)	39.29 (29.1,53.1)	56.64 (43.1,74.4)
\$45k-\$75k	11.09 (8.3,14.9)	2.35 (1.4,3.8)	7.16 (5.0,10.3)	14.94 (10.9,20.5)	26.54 (19.7,35.8)	35.89 (26.7,48.3)	43.23 (31.9,58.6)	58.52 (42.8,79.9)
\$75k+	12.74 (9.9,16.4)	3.21 (1.7,5.9)	8.90 (6.2,12.8)	17.64 (13.6,23.0)	29.57 (23.2,37.7)	39.12 (30.5,50.1)	45.97 (35.5,59.5)	61.44 (47.2,80.0)
>\$20,000	12.53 (7.2,21.7)	3.37 (1.3,8.4)	9.06 (4.1,19.8)	16.80 (10.0,28.2)	29.18 (17.1,49.9)	39.11 (22.3,68.7)	44.93 (27.2,74.1)	63.13 (36.4,109.6)
Inc Ref/DK	11.50 (6.3,21.2)	2.56 (0.8,7.9)	7.97 (3.1,20.6)	16.12 (8.4,31.0)	28.00 (15.4,50.9)	36.18 (21.8,60.1)	41.52 (27.0,63.9)	49.83 (31.7,78.4)
Inc missing	14.01 (4.5,43.8)	2.81 (0.4,19.9)	8.17 (1.9,34.3)	18.10 (5.6,58.7)	33.52 (11.9,94.7)	55.65 (14.4,215.7)	69.06 (17.8,268.3)	75.15 (34.5,163.5)
<b>Race/Ethnicity</b>								
Mexican American	9.53 (6.9,13.1)	1.69 (1.0,3.0)	5.81 (3.5,9.8)	13.01 (9.1,18.7)	23.01 (17.0,31.2)	31.80 (23.7,42.7)	38.91 (28.7,52.7)	51.59 (36.6,72.7)
Other Hispanic	9.49 (6.8,13.2)	1.62 (0.9,2.9)	5.34 (3.4,8.3)	12.19 (8.3,17.9)	23.59 (16.6,33.4)	34.16 (22.4,52.0)	41.72 (26.8,64.9)	61.80 (34.4,111.1)
White	10.51 (8.2,13.5)	2.38 (1.3,4.2)	7.10 (5.1,9.9)	14.26 (11.0,18.6)	24.53 (18.7,32.2)	33.01 (25.1,43.3)	39.65 (30.2,52.0)	54.57 (40.9,72.8)
Black	12.25 (9.5,15.8)	2.93 (1.9,4.4)	8.41 (6.0,11.8)	17.14 (13.1,22.4)	28.16 (20.8,38.0)	37.41 (27.8,50.4)	44.62 (33.5,59.5)	58.89 (42.2,82.2)
Other race	19.80 (14.3,27.4)	5.04 (2.2,11.5)	13.93 (8.5,22.8)	28.16 (19.1,41.6)	45.03 (34.9,58.1)	58.28 (45.8,74.1)	68.72 (52.5,90.0)	92.11 (67.8,125.1)

393  
394  
395

Table C-4. Total finfish usual fish consumption rate estimates, all ages (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	8.36 (6.1,11.4)	1.67 (1.0,2.9)	5.51 (3.5,8.6)	11.61 (8.2,16.4)	19.71 (14.0,27.7)	26.30 (18.2,38.1)	31.20 (20.8,46.7)	42.44 (26.8,67.2)
Northeast	12.73 (9.2,17.5)	2.64 (1.5,4.5)	8.23 (5.7,11.9)	17.69 (12.7,24.6)	30.38 (22.2,41.6)	40.98 (29.6,56.8)	48.60 (35.3,67.0)	65.65 (47.5,90.8)
South	11.55 (9.2,14.5)	2.50 (1.5,4.0)	7.46 (5.4,10.3)	15.41 (12.0,19.7)	27.20 (21.6,34.3)	37.09 (29.6,46.5)	45.27 (35.7,57.3)	63.68 (49.6,81.8)
West	12.53 (9.5,16.6)	3.02 (1.6,5.6)	8.76 (6.2,12.5)	17.29 (12.9,23.2)	29.52 (22.1,39.4)	39.05 (29.3,52.1)	46.24 (34.4,62.1)	59.46 (42.6,83.1)
<b>Coastal Status</b>								
Noncoastal	10.72 (7.7,15.0)	2.26 (1.2,4.2)	7.10 (4.5,11.3)	14.43 (10.6,19.7)	25.20 (18.5,34.4)	34.22 (24.8,47.3)	41.42 (29.5,58.1)	57.98 (39.8,84.6)
Coastal	11.89 (8.9,15.9)	2.61 (1.7,3.9)	7.66 (5.6,10.5)	16.23 (11.9,22.2)	28.53 (21.0,38.8)	38.23 (27.8,52.7)	45.71 (32.8,63.7)	62.09 (43.0,89.6)
<b>Coastal/Inland Region</b>								
Pacific	11.70 (8.0,17.1)	2.47 (1.5,4.0)	7.96 (5.5,11.6)	16.10 (10.6,24.5)	28.05 (19.1,41.2)	37.77 (26.3,54.2)	44.88 (30.8,65.3)	58.23 (36.6,92.7)
Atlantic	12.27 (7.7,19.6)	3.10 (1.9,5.1)	8.13 (4.6,14.4)	16.82 (10.0,28.3)	28.70 (17.5,47.2)	37.83 (23.4,61.2)	45.21 (28.8,70.9)	58.89 (35.4,97.9)
Gulf of Mexico	14.21 (9.4,21.5)	2.89 (1.2,7.2)	8.38 (4.0,17.8)	18.55 (10.4,33.2)	35.17 (21.4,57.8)	48.61 (30.3,78.0)	59.51 (37.3,94.9)	83.32 (52.5,132.2)
Great Lakes	8.95 (5.7,14.2)	1.61 (0.9,3.0)	5.07 (2.8,9.2)	12.29 (7.6,19.8)	22.35 (14.1,35.5)	30.23 (18.7,48.9)	35.50 (20.6,61.2)	45.78 (21.5,97.6)
Inland Northeast	12.59 (7.4,21.4)	2.12 (1.2,3.8)	7.86 (4.6,13.5)	17.34 (10.4,28.8)	30.38 (17.8,51.9)	42.65 (22.4,81.3)	51.55 (26.3,100.9)	70.18 (35.4,139.0)
Inland Midwest	8.18 (5.6,11.9)	1.70 (0.9,3.4)	5.58 (3.1,10.0)	11.48 (7.4,17.7)	19.00 (13.4,26.9)	25.15 (17.9,35.3)	29.92 (21.1,42.5)	40.05 (27.5,58.3)
Inland South	10.77 (8.0,14.6)	2.24 (1.3,3.9)	7.19 (4.5,11.4)	14.46 (10.9,19.3)	25.21 (19.4,32.8)	34.22 (26.0,45.0)	41.34 (31.1,54.9)	58.28 (41.2,82.4)
Inland West	13.35 (7.9,22.4)	3.65 (1.3,10.6)	9.56 (5.2,17.4)	18.22 (11.2,29.7)	31.02 (18.2,52.8)	40.27 (24.2,66.9)	48.24 (28.3,82.2)	61.80 (39.7,96.2)

396  
397

**Table C-5. Total finfish usual fish consumption rate estimates, adults ≥21 years**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	13.38 (10.6,16.8)	4.33 (2.8,6.8)	9.69 (7.2,13.0)	18.01 (14.1,23.0)	29.82 (23.6,37.7)	39.25 (30.8,50.0)	46.36 (36.2,59.4)	62.16 (47.9,80.7)
<b>Gender</b>								
Female	11.96 (9.4,15.2)	3.89 (2.4,6.4)	8.71 (6.5,11.7)	16.36 (12.7,21.1)	26.82 (20.8,34.5)	34.68 (26.6,45.2)	40.98 (31.3,53.6)	55.53 (42.2,73.1)
Male	15.19 (12.0,19.2)	5.10 (3.3,7.9)	11.11 (8.2,15.0)	20.04 (15.5,25.9)	33.90 (26.8,42.9)	44.68 (35.2,56.7)	51.56 (39.9,66.6)	70.67 (55.5,90.1)
<b>Age</b>								
21 to <35 yrs	11.86 (8.2,17.2)	3.13 (1.2,7.9)	7.80 (4.5,13.4)	15.74 (10.5,23.6)	27.51 (19.6,38.7)	36.73 (27.6,49.0)	45.27 (33.5,61.1)	61.69 (46.4,82.1)
35 to <50 yrs	12.17 (9.4,15.8)	4.21 (3.0,5.8)	9.04 (7.0,11.7)	16.22 (12.1,21.8)	26.57 (19.6,35.9)	35.48 (26.6,47.3)	41.97 (31.2,56.4)	55.74 (40.8,76.2)
50 to <65 yrs	17.70 (12.4,25.2)	7.16 (3.8,13.5)	13.66 (9.1,20.5)	23.96 (16.9,34.0)	37.45 (27.0,52.0)	47.14 (34.5,64.4)	54.81 (39.8,75.5)	70.19 (51.2,96.2)
65+ yrs	12.33 (8.1,18.8)	4.42 (2.9,6.6)	9.23 (6.1,13.9)	16.68 (10.8,25.7)	26.94 (17.2,42.2)	34.85 (21.6,56.1)	41.21 (25.8,65.9)	54.23 (31.7,92.6)
<b>WCA (13-49 years)</b>	9.84 (7.7,12.6)	2.30 (1.3,3.9)	6.62 (4.7,9.3)	13.39 (10.4,17.3)	23.05 (18.0,29.4)	30.80 (24.0,39.6)	37.14 (28.7,48.1)	50.93 (38.7,67.1)
<b>Income</b>								
<\$20,000	11.42 (9.0,14.4)	2.80 (1.7,4.7)	7.54 (5.6,10.1)	15.15 (11.9,19.3)	26.02 (20.4,33.3)	35.23 (27.4,45.3)	42.94 (33.1,55.7)	59.92 (44.6,80.4)
>\$20,000	13.69 (10.8,17.3)	4.65 (3.0,7.1)	10.05 (7.5,13.4)	18.42 (14.3,23.6)	30.29 (23.8,38.6)	39.66 (30.9,50.9)	46.56 (36.0,60.3)	61.80 (46.5,82.1)
Income unknown	14.48 (7.4,28.3)	4.35 (1.2,16.4)	10.30 (4.5,23.8)	18.64 (10.4,33.3)	32.57 (18.6,57.0)	45.66 (22.5,92.4)	55.65 (25.0,123.9)	71.34 (37.6,135.2)
<b>Income, finer detail</b>								
<\$20,000	11.42 (9.0,14.4)	2.80 (1.7,4.7)	7.54 (5.6,10.1)	15.15 (11.9,19.3)	26.02 (20.4,33.3)	35.23 (27.4,45.3)	42.94 (33.1,55.7)	59.92 (44.6,80.4)
\$20k-\$45k	11.94 (9.1,15.6)	3.80 (2.5,5.9)	8.57 (6.4,11.4)	15.89 (11.8,21.4)	26.49 (19.5,35.9)	35.55 (26.3,48.0)	42.79 (31.7,57.8)	58.28 (42.2,80.5)
\$45k-\$75k	13.16 (9.9,17.6)	4.21 (2.7,6.6)	9.39 (6.7,13.2)	17.63 (13.0,23.9)	29.83 (22.3,39.9)	39.51 (29.2,53.4)	46.49 (34.4,62.9)	61.54 (44.7,84.8)
\$75k+	15.46 (12.1,19.7)	5.90 (3.7,9.3)	11.70 (8.7,15.7)	20.69 (16.1,26.6)	33.09 (25.9,42.3)	42.90 (33.5,54.9)	49.34 (38.0,64.0)	64.88 (49.1,85.8)
>\$20,000	14.50 (8.8,23.9)	5.17 (2.4,10.9)	11.17 (5.9,21.2)	18.67 (11.9,29.3)	31.63 (19.4,51.4)	41.56 (25.4,68.1)	47.52 (29.7,76.0)	64.77 (39.0,107.6)
Inc Ref/DK	13.43 (7.6,23.9)	4.24 (1.2,14.6)	10.05 (4.6,22.1)	18.27 (10.3,32.5)	30.90 (17.7,53.8)	39.51 (23.3,66.9)	45.66 (28.1,74.3)	52.65 (33.0,83.9)
Inc missing	16.83 (5.4,52.3)	4.42 (0.8,25.9)	11.38 (3.0,43.8)	19.41 (7.6,49.3)	40.63 (12.9,127.5)	62.28 (15.1,256.3)	71.34 (19.6,259.9)	79.19 (33.8,185.7)
<b>Race/Ethnicity</b>								
Mexican American	12.66 (8.9,18.0)	3.72 (1.6,8.5)	9.22 (5.5,15.3)	17.31 (11.8,25.5)	28.40 (20.4,39.6)	37.92 (27.4,52.5)	44.51 (32.4,61.2)	58.73 (41.6,82.9)
Other Hispanic	12.38 (8.4,18.2)	3.67 (1.9,7.0)	8.02 (5.2,12.3)	15.96 (11.1,23.0)	28.46 (19.0,42.7)	39.06 (24.8,61.5)	48.60 (27.9,84.6)	68.53 (35.5,132.3)
White	12.23 (9.5,15.7)	4.16 (2.7,6.5)	9.05 (6.8,12.0)	16.50 (12.6,21.6)	27.08 (20.7,35.5)	35.37 (26.7,46.8)	42.21 (32.0,55.8)	55.55 (40.7,75.8)
Black	15.30 (12.0,19.6)	5.53 (3.1,9.9)	11.77 (8.4,16.5)	21.04 (16.2,27.3)	32.72 (24.7,43.3)	42.43 (32.2,55.9)	49.08 (36.5,66.0)	63.98 (45.5,89.9)
Other race	24.48 (18.0,33.3)	9.28 (5.1,16.8)	19.45 (12.2,30.9)	33.79 (24.1,47.4)	51.47 (39.6,66.9)	64.68 (49.3,84.8)	76.63 (57.7,101.8)	101.62 (72.5,142.4)

**Table C-5. Total finfish usual fish consumption rate estimates, adults ≥21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	10.24 (7.4,14.1)	3.46 (1.9,6.4)	7.53 (5.0,11.2)	13.90 (10.0,19.4)	22.52 (15.9,31.8)	29.42 (20.3,42.6)	34.34 (22.8,51.7)	45.94 (29.2,72.3)
Northeast	14.64 (10.9,19.6)	4.68 (2.8,7.8)	10.83 (7.7,15.2)	20.15 (14.9,27.2)	32.43 (24.0,43.7)	42.51 (32.0,56.4)	49.43 (36.7,66.5)	61.50 (42.6,88.7)
South	13.84 (11.1,17.2)	4.43 (2.9,6.9)	9.82 (7.4,13.0)	18.34 (14.6,23.1)	30.77 (24.5,38.6)	41.57 (32.9,52.5)	49.09 (38.6,62.4)	68.72 (52.4,90.1)
West	15.19 (11.4,20.2)	5.50 (3.5,8.7)	11.42 (8.3,15.7)	20.56 (15.2,27.7)	33.37 (24.9,44.7)	43.13 (32.0,58.1)	49.58 (36.7,67.0)	63.78 (46.0,88.5)
<b>Coastal Status</b>								
Noncoastal	12.83 (9.2,17.9)	4.25 (2.2,8.4)	9.41 (6.2,14.2)	17.22 (12.6,23.6)	28.30 (20.8,38.5)	37.18 (27.2,50.8)	44.49 (31.9,62.1)	59.59 (42.2,84.0)
Coastal	14.24 (10.4,19.5)	4.46 (2.9,6.8)	10.11 (7.1,14.4)	19.35 (14.1,26.6)	32.10 (23.5,43.9)	42.40 (31.3,57.4)	49.31 (34.7,70.2)	64.60 (41.5,100.7)
<b>Coastal/Inland Region</b>								
Pacific	14.23 (9.9,20.4)	4.81 (3.1,7.4)	10.46 (7.0,15.5)	19.46 (13.5,28.1)	31.64 (22.0,45.5)	41.98 (29.8,59.1)	47.91 (32.0,71.7)	61.39 (37.3,101.0)
Atlantic	14.53 (8.7,24.2)	4.92 (2.5,9.8)	10.63 (5.9,19.1)	19.71 (11.5,33.8)	32.33 (20.2,51.6)	41.52 (26.0,66.2)	48.72 (30.7,77.2)	62.38 (37.4,104.2)
Gulf of Mexico	16.33 (10.8,24.7)	4.15 (2.3,7.5)	10.35 (5.6,19.2)	21.27 (12.8,35.3)	39.99 (22.2,72.0)	51.16 (29.5,88.6)	62.44 (36.5,106.7)	87.20 (53.2,142.8)
Great Lakes	11.35 (7.3,17.7)	3.28 (1.7,6.2)	7.81 (4.7,13.0)	16.14 (11.0,23.6)	26.25 (17.0,40.5)	33.30 (19.7,56.4)	38.84 (22.1,68.2)	50.24 (24.6,102.6)
Inland Northeast	14.17 (8.7,23.0)	4.16 (1.9,9.3)	10.49 (6.0,18.2)	19.59 (12.3,31.3)	31.54 (20.1,49.6)	42.49 (25.6,70.6)	49.34 (30.1,80.8)	64.36 (39.1,105.9)
Inland Midwest	9.93 (6.8,14.5)	3.51 (1.6,7.8)	7.46 (4.4,12.5)	13.37 (9.1,19.7)	21.42 (15.1,30.4)	27.66 (19.5,39.3)	32.61 (22.7,46.9)	44.71 (31.2,64.1)
Inland South	13.17 (9.6,18.1)	4.36 (2.1,9.2)	9.65 (6.3,14.8)	17.43 (13.2,23.0)	28.90 (22.0,37.9)	38.14 (29.2,49.9)	45.41 (34.1,60.5)	62.91 (43.9,90.0)
Inland West	16.22 (9.4,28.1)	6.37 (2.7,14.8)	12.46 (7.0,22.0)	21.80 (12.8,37.1)	35.00 (19.9,61.5)	45.08 (26.0,78.3)	51.03 (31.2,83.6)	66.40 (40.9,107.8)

404  
405  
406  
407

DRAFT DO NOT

408  
409

**Table C-6. Total finfish usual fish consumption rate estimates, youth <21 years**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	5.69 (4.0,8.1)	0.82 (0.5,1.4)	2.64 (1.6,4.4)	6.96 (4.7,10.4)	13.83 (10.0,19.1)	20.83 (14.9,29.1)	26.63 (19.0,37.4)	43.57 (29.0,65.5)
<b>Gender</b>								
Female	4.93 (3.5,6.8)	0.72 (0.4,1.2)	2.26 (1.4,3.7)	6.09 (4.2,8.9)	12.52 (8.9,17.6)	18.39 (13.2,25.5)	23.43 (17.0,32.3)	35.84 (26.1,49.2)
Male	6.49 (4.3,9.7)	0.96 (0.5,1.7)	3.12 (1.7,5.6)	7.74 (5.2,11.6)	15.50 (10.8,22.2)	23.42 (16.2,33.9)	29.57 (20.1,43.6)	54.48 (28.7,103.4)
<b>Age</b>								
1 to <3 yrs	3.09 (2.0,4.8)	0.43 (0.2,0.8)	1.32 (0.7,2.4)	3.50 (2.2,5.6)	7.82 (4.9,12.4)	12.20 (7.5,19.9)	16.42 (9.3,28.9)	24.47 (14.9,40.1)
3 to <6 yrs	4.01 (2.4,6.8)	0.69 (0.2,2.0)	2.25 (0.9,5.7)	5.07 (2.7,9.4)	9.43 (6.2,14.3)	13.56 (9.3,19.9)	17.25 (11.6,25.6)	26.87 (17.6,41.0)
6 to <11 yrs	6.01 (3.5,10.2)	0.96 (0.5,2.0)	3.15 (1.6,6.1)	7.91 (4.5,13.9)	15.26 (8.9,26.2)	21.61 (12.4,37.8)	26.14 (14.8,46.2)	37.04 (21.3,64.5)
11 to <16 yrs	5.15 (3.3,7.9)	0.86 (0.5,1.5)	2.67 (1.5,4.8)	6.90 (4.1,11.7)	12.60 (8.2,19.3)	18.06 (11.9,27.4)	22.82 (15.0,34.7)	31.75 (19.4,52.0)
16 to <18 yrs	6.04 (4.2,8.7)	0.81 (0.4,1.6)	2.88 (1.7,4.8)	7.76 (5.1,11.7)	15.01 (10.0,22.5)	22.53 (15.5,32.8)	28.20 (18.9,42.1)	41.37 (26.1,65.6)
18 to <21 yrs	9.59 (5.6,16.4)	1.32 (0.7,2.5)	4.35 (2.6,7.3)	11.07 (6.7,18.1)	23.27 (13.2,41.0)	38.86 (19.6,77.2)	50.08 (23.0,109.2)	83.28 (30.1,230.5)
<b>Income</b>								
<\$20,000	5.20 (3.7,7.2)	0.82 (0.5,1.4)	2.54 (1.6,3.9)	6.41 (4.4,9.3)	12.68 (8.2,19.6)	18.71 (12.2,28.7)	24.36 (16.4,36.2)	38.63 (28.1,53.0)
>\$20,000	5.73 (3.9,8.4)	0.82 (0.5,1.4)	2.62 (1.6,4.4)	6.98 (4.5,10.8)	13.84 (9.7,19.7)	20.83 (14.6,29.7)	26.50 (18.5,37.9)	44.84 (27.8,72.3)
Income unknown	7.51 (2.7,20.7)	1.00 (0.4,2.4)	3.61 (1.0,13.4)	8.93 (2.9,27.4)	20.72 (5.7,75.6)	28.93 (10.2,82.1)	35.82 (14.7,87.5)	53.33 (22.2,128.4)
<b>Income, finer detail</b>								
<\$20,000	5.20 (3.7,7.2)	0.82 (0.5,1.4)	2.54 (1.6,3.9)	6.41 (4.4,9.3)	12.68 (8.2,19.6)	18.71 (12.2,28.7)	24.36 (16.4,36.2)	38.63 (28.1,53.0)
\$20k-\$45k	5.74 (3.8,8.6)	0.78 (0.5,1.2)	2.46 (1.6,3.8)	6.59 (4.5,9.6)	13.84 (9.7,19.7)	20.75 (14.8,29.0)	27.23 (18.8,39.5)	47.72 (25.7,88.5)
\$45k-\$75k	5.31 (3.5,8.1)	0.71 (0.4,1.2)	2.42 (1.3,4.4)	6.58 (4.1,10.6)	12.53 (7.9,19.8)	19.69 (12.5,31.0)	24.16 (13.7,42.6)	44.30 (23.5,83.4)
\$75k+	5.95 (3.8,9.3)	0.90 (0.4,1.9)	2.86 (1.5,5.5)	7.38 (4.4,12.3)	14.59 (9.7,22.0)	21.58 (14.3,32.5)	28.04 (17.9,44.0)	43.57 (27.6,68.8)
>\$20,000	6.17 (3.2,11.7)	1.22 (0.5,3.3)	3.80 (1.7,8.7)	8.26 (3.7,18.4)	14.15 (7.3,27.4)	22.10 (10.1,48.3)	24.42 (11.1,53.9)	38.13 (17.2,84.8)
Inc Ref/DK	6.25 (2.2,17.8)	0.89 (0.4,1.9)	3.20 (1.0,10.6)	7.60 (2.3,25.0)	16.53 (4.8,57.3)	24.25 (7.5,77.9)	27.81 (11.2,68.8)	35.41 (18.9,66.3)
Inc missing	9.26 (2.4,35.6)	1.14 (0.2,5.3)	4.54 (0.7,30.3)	11.29 (2.2,56.8)	26.15 (4.8,141.1)	35.87 (9.5,136.0)	45.92 (13.7,153.4)	54.36 (19.4,152.5)
<b>Race/Ethnicity</b>								
Mexican American	4.71 (3.3,6.7)	0.78 (0.5,1.3)	2.40 (1.5,3.8)	6.02 (4.1,8.8)	11.40 (7.5,17.3)	16.78 (11.1,25.3)	21.50 (14.4,32.0)	33.34 (22.4,49.5)
Other Hispanic	4.25 (2.1,8.8)	0.56 (0.2,1.6)	1.85 (0.8,4.4)	5.06 (2.3,11.4)	10.51 (4.7,23.7)	15.65 (6.9,35.3)	20.43 (9.7,43.0)	38.57 (22.3,66.7)
White	5.47 (3.0,9.9)	0.75 (0.4,1.5)	2.34 (1.2,4.6)	6.38 (3.5,11.6)	12.99 (7.9,21.3)	20.18 (11.4,35.6)	26.07 (14.8,45.8)	45.93 (20.5,102.8)
Black	6.11 (3.9,9.6)	1.24 (0.8,2.0)	3.78 (2.5,5.7)	8.14 (5.2,12.8)	14.48 (8.6,24.5)	19.82 (10.9,35.9)	24.61 (13.8,43.8)	34.12 (17.0,68.4)
Other race	9.79 (6.4,15.0)	1.52 (0.7,3.4)	5.35 (2.6,11.1)	13.20 (7.6,22.9)	24.79 (16.8,36.6)	34.30 (24.0,48.9)	41.37 (28.3,60.6)	56.31 (37.3,85.1)

410  
411

412  
413

**Table C-6. Total finfish usual fish consumption rate estimates, youth <21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	3.59 (2.4,5.5)	0.63 (0.3,1.3)	1.73 (1.0,2.9)	4.68 (3.2,6.9)	9.06 (5.9,14.0)	12.87 (7.2,22.9)	15.84 (7.7,32.7)	23.10 (9.1,58.8)
Northeast	7.75 (3.2,19.1)	0.96 (0.5,1.8)	3.05 (1.8,5.2)	7.65 (4.8,12.1)	18.39 (8.3,40.7)	34.24 (9.1,129.4)	44.56 (11.4,174.4)	74.65 (14.5,384.7)
South	5.72 (3.9,8.4)	0.87 (0.5,1.4)	2.76 (1.7,4.4)	7.21 (4.7,11.1)	14.06 (9.4,20.9)	20.39 (13.8,30.1)	25.71 (17.5,37.8)	39.63 (26.7,58.9)
West	6.47 (3.9,10.7)	1.04 (0.5,2.3)	3.37 (1.5,7.7)	8.61 (4.5,16.4)	16.11 (9.7,26.7)	23.32 (14.0,38.9)	28.20 (17.0,46.7)	41.40 (26.1,65.7)
<b>Coastal Status</b>								
Noncoastal	5.52 (3.5,8.6)	0.80 (0.5,1.3)	2.53 (1.5,4.3)	6.66 (4.4,10.2)	12.99 (8.9,19.0)	20.03 (12.8,31.3)	26.07 (15.9,42.7)	44.91 (21.9,92.1)
Coastal	5.97 (4.2,8.4)	0.87 (0.4,1.7)	2.83 (1.6,5.1)	7.40 (4.8,11.3)	14.93 (10.4,21.4)	21.97 (15.6,30.9)	27.37 (19.1,39.3)	41.02 (27.1,62.0)
<b>Coastal/Inland Region</b>								
Pacific	5.13 (3.3,7.9)	0.74 (0.4,1.5)	2.54 (1.3,4.9)	6.61 (4.0,10.8)	13.43 (8.2,22.1)	19.60 (11.3,33.9)	23.61 (11.8,47.3)	32.16 (12.5,82.6)
Atlantic	6.15 (3.6,10.5)	1.04 (0.5,2.2)	3.35 (1.6,7.1)	7.91 (4.3,14.6)	15.34 (9.0,26.1)	21.30 (13.0,34.8)	26.40 (16.2,43.0)	36.91 (21.8,62.6)
Gulf of Mexico	9.54 (3.7,24.9)	1.23 (0.4,3.5)	4.56 (1.4,15.2)	12.04 (3.7,39.7)	23.94 (8.3,69.1)	34.50 (14.3,83.5)	43.57 (19.9,95.5)	74.30 (31.8,173.4)
Great Lakes	3.62 (1.3,10.2)	0.62 (0.2,1.6)	1.77 (0.9,3.6)	4.25 (1.6,11.3)	8.72 (2.3,32.5)	13.13 (3.3,52.1)	16.34 (3.9,69.1)	25.16 (5.7,110.4)
Inland Northeast	8.41 (2.7,26.5)	0.80 (0.5,1.3)	2.59 (1.5,4.5)	6.79 (4.2,11.1)	20.63 (6.8,62.2)	43.15 (6.2,301.2)	58.95 (7.1,488.0)	85.32 (10.8,675.7)
Inland Midwest	3.57 (2.5,5.0)	0.63 (0.3,1.4)	1.73 (0.9,3.3)	4.75 (2.8,8.1)	9.14 (6.5,12.8)	12.69 (9.2,17.4)	15.66 (11.0,22.3)	22.40 (13.7,36.5)
Inland South	4.65 (2.9,7.4)	0.76 (0.5,1.3)	2.36 (1.4,3.9)	6.22 (3.9,10.0)	11.43 (6.8,19.2)	16.49 (10.0,27.2)	20.64 (12.4,34.3)	28.93 (16.8,50.0)
Inland West	7.59 (3.2,17.8)	1.38 (0.4,4.3)	4.34 (1.2,15.4)	10.02 (4.0,24.9)	18.67 (8.3,41.7)	25.48 (12.0,54.2)	32.45 (14.7,71.8)	46.84 (22.3,98.3)

414  
415  
416  
417  
418  
419

420  
421

Table C-7. Total shellfish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	5.25 (3.5,8.0)	0.61 (0.3,1.2)	2.13 (1.2,3.9)	6.02 (3.6,10.0)	13.60 (8.9,20.9)	21.23 (14.6,30.8)	27.62 (19.5,39.2)	42.04 (29.4,60.1)
<b>Gender</b>								
Female	4.40 (2.9,6.7)	0.52 (0.2,1.1)	1.81 (1.0,3.4)	5.16 (3.2,8.4)	11.45 (7.6,17.3)	17.38 (11.8,25.6)	22.31 (15.4,32.2)	33.74 (23.0,49.4)
Male	6.27 (4.0,9.7)	0.76 (0.4,1.5)	2.54 (1.3,4.9)	7.28 (4.3,12.5)	16.48 (10.6,25.6)	25.81 (17.9,37.3)	33.01 (23.1,47.2)	49.46 (34.6,70.7)
<b>Age</b>								
1 to <3 yrs	1.01 (0.5,2.0)	0.10 (0.0,0.3)	0.30 (0.1,0.7)	0.92 (0.4,2.0)	2.35 (1.1,4.9)	4.17 (1.9,9.0)	6.02 (2.8,13.1)	12.49 (5.2,30.3)
3 to <6 yrs	1.87 (1.0,3.4)	0.22 (0.1,0.5)	0.74 (0.3,1.6)	2.15 (1.1,4.2)	4.76 (2.5,9.1)	7.39 (4.0,13.7)	10.02 (5.8,17.4)	16.78 (9.6,29.2)
6 to <11 yrs	1.48 (0.7,3.3)	0.13 (0.0,0.5)	0.44 (0.1,1.4)	1.41 (0.5,3.7)	3.61 (1.6,8.2)	6.25 (3.0,13.1)	9.66 (4.9,19.0)	15.89 (6.7,37.6)
11 to <16 yrs	2.19 (0.5,8.9)	0.22 (0.1,0.5)	0.69 (0.2,1.9)	2.18 (0.7,7.0)	5.30 (1.2,24.1)	9.29 (2.0,43.1)	12.25 (2.3,65.8)	19.29 (2.4,157.1)
16 to <18 yrs	3.23 (1.8,5.7)	0.42 (0.2,1.0)	1.22 (0.6,2.6)	3.79 (1.9,7.4)	7.73 (4.0,15.0)	12.55 (6.9,22.8)	17.83 (10.0,31.8)	30.00 (16.2,55.6)
18 to <21 yrs	5.64 (2.6,12.2)	0.61 (0.2,1.6)	1.93 (0.9,4.1)	6.15 (2.8,13.7)	14.08 (6.8,29.4)	24.84 (9.6,64.5)	32.51 (12.5,84.4)	51.79 (20.7,129.5)
21 to <35 yrs	6.04 (4.3,8.4)	0.91 (0.5,1.6)	2.79 (1.8,4.4)	7.07 (4.9,10.3)	15.25 (10.9,21.3)	23.19 (16.4,32.9)	29.32 (20.8,41.4)	45.67 (31.2,66.8)
35 to <50 yrs	7.01 (4.5,11.0)	1.22 (0.6,2.5)	3.42 (1.9,6.0)	8.29 (4.9,13.9)	17.39 (10.9,27.8)	26.33 (16.6,41.9)	33.10 (20.2,54.1)	49.86 (29.3,84.8)
50 to <65 yrs	7.05 (4.0,12.4)	1.39 (0.5,3.7)	3.70 (1.7,8.3)	8.81 (4.6,16.8)	17.69 (10.5,29.9)	25.40 (15.8,40.8)	30.66 (18.9,49.8)	44.79 (30.0,66.9)
65+ yrs	4.51 (2.3,8.8)	0.65 (0.2,1.9)	1.92 (0.8,4.7)	5.03 (2.1,11.8)	11.56 (5.8,23.1)	18.25 (10.4,32.0)	23.74 (14.2,39.7)	37.46 (25.3,55.4)
<b>Income</b>								
<\$20,000	3.96 (2.5,6.3)	0.42 (0.2,1.0)	1.45 (0.7,3.1)	4.36 (2.4,7.7)	10.36 (6.7,16.1)	16.00 (10.3,24.9)	21.00 (13.6,32.4)	33.73 (22.4,50.9)
>\$20,000	5.40 (3.5,8.4)	0.66 (0.3,1.3)	2.24 (1.2,4.2)	6.26 (3.7,10.7)	13.92 (8.8,22.1)	21.69 (14.6,32.1)	28.12 (19.4,40.8)	42.10 (28.5,62.1)
Income unknown	7.67 (4.4,13.5)	0.87 (0.4,1.8)	3.12 (1.8,5.5)	8.40 (5.1,13.7)	20.39 (11.5,36.0)	31.25 (16.2,60.4)	39.65 (19.7,79.9)	63.65 (26.1,155.2)
<b>Income, finer detail</b>								
<\$20,000	3.96 (2.5,6.3)	0.42 (0.2,1.0)	1.45 (0.7,3.1)	4.36 (2.4,7.7)	10.36 (6.7,16.1)	16.00 (10.3,24.9)	21.00 (13.6,32.4)	33.73 (22.4,50.9)
\$20k-\$45k	4.48 (3.1,6.5)	0.55 (0.3,1.0)	1.79 (1.1,3.0)	5.07 (3.3,7.7)	11.78 (7.8,17.9)	18.13 (12.0,27.3)	23.09 (15.8,33.7)	36.48 (25.0,53.1)
\$45k-\$75k	5.09 (3.0,8.6)	0.60 (0.2,1.5)	2.10 (1.0,4.4)	5.88 (3.2,10.9)	13.35 (8.1,22.0)	20.51 (12.9,32.6)	26.21 (16.4,41.8)	40.59 (26.5,62.2)
\$75k+	6.40 (3.6,11.4)	0.83 (0.3,2.0)	2.80 (1.2,6.3)	7.66 (3.8,15.5)	16.52 (9.0,30.2)	25.92 (16.6,40.4)	31.91 (19.8,51.4)	48.24 (31.9,73.1)
>\$20,000	4.83 (2.5,9.5)	0.78 (0.3,1.8)	2.44 (1.1,5.5)	6.04 (2.9,12.4)	11.72 (5.7,24.0)	19.23 (9.4,39.3)	22.63 (11.5,44.7)	35.42 (18.5,67.8)
Inc Ref/DK	8.95 (4.6,17.4)	1.13 (0.5,2.4)	3.92 (2.1,7.4)	10.29 (5.7,18.4)	24.03 (11.7,49.2)	37.73 (15.3,93.1)	47.16 (19.2,115.6)	66.11 (28.9,151.2)
Inc missing	5.22 (2.2,12.2)	0.63 (0.2,2.1)	2.27 (0.7,7.2)	6.26 (2.3,17.4)	15.02 (5.7,39.2)	21.40 (9.0,50.6)	26.81 (11.7,61.6)	37.44 (17.3,80.9)
<b>Race/Ethnicity</b>								
Mexican American	5.23 (3.2,8.5)	0.57 (0.3,1.1)	2.08 (1.2,3.7)	6.03 (3.6,10.2)	14.28 (9.3,22.0)	21.02 (13.1,33.8)	26.71 (16.0,44.7)	40.09 (20.6,78.0)
Other Hispanic	5.84 (3.5,9.8)	0.39 (0.1,1.1)	1.89 (0.9,3.9)	6.58 (3.7,11.6)	16.30 (9.5,27.9)	25.12 (14.7,43.0)	32.42 (18.5,56.7)	54.95 (30.5,99.1)
White	4.93 (2.9,8.3)	0.60 (0.3,1.3)	2.04 (1.0,4.0)	5.66 (3.0,10.6)	12.66 (7.2,22.4)	19.85 (12.2,32.2)	25.94 (16.7,40.2)	39.73 (26.3,60.1)
Black	4.32 (2.9,6.4)	0.61 (0.3,1.4)	2.00 (1.1,3.7)	5.27 (3.3,8.3)	11.08 (7.6,16.1)	16.00 (10.8,23.6)	20.73 (14.5,29.5)	31.18 (21.5,45.3)
Other race	10.11 (5.2,19.7)	1.34 (0.7,2.7)	5.13 (2.0,12.9)	13.00 (5.9,28.7)	25.78 (13.2,50.4)	39.47 (18.6,83.7)	46.46 (25.3,85.3)	69.15 (37.5,127.6)

422

423  
424

Table C-7. Total shellfish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.91 (1.5,5.5)	0.38 (0.2,0.8)	1.18 (0.5,2.6)	3.19 (1.5,6.9)	7.11 (3.6,14.2)	11.20 (5.9,21.1)	14.64 (7.6,28.4)	26.90 (16.0,45.4)
Northeast	7.98 (4.8,13.3)	0.82 (0.2,3.0)	3.40 (1.4,8.2)	9.50 (4.6,19.6)	21.43 (13.7,33.5)	31.31 (20.5,47.9)	39.34 (26.1,59.4)	58.08 (37.5,89.9)
South	5.57 (3.7,8.5)	0.76 (0.4,1.4)	2.48 (1.5,4.2)	6.63 (4.2,10.5)	14.42 (9.2,22.6)	21.59 (14.0,33.4)	27.59 (18.1,42.0)	41.44 (28.2,61.0)
West	5.46 (3.2,9.3)	0.75 (0.4,1.6)	2.47 (1.2,5.0)	6.59 (3.6,12.2)	14.04 (8.1,24.2)	21.23 (13.1,34.5)	26.56 (16.1,43.9)	40.07 (24.4,65.8)
<b>Coastal Status</b>								
Noncoastal	4.32 (2.7,6.9)	0.52 (0.3,1.0)	1.71 (0.9,3.2)	4.77 (2.7,8.4)	10.88 (6.6,18.0)	17.12 (10.6,27.6)	22.93 (14.7,35.7)	37.65 (24.4,58.2)
Coastal	6.70 (4.2,10.8)	0.86 (0.4,2.0)	3.07 (1.6,6.0)	8.29 (4.7,14.6)	17.55 (10.9,28.3)	26.08 (17.0,40.0)	32.16 (21.1,48.9)	47.92 (32.9,69.7)
<b>Coastal/Inland Region</b>								
Pacific	6.15 (3.4,11.1)	0.77 (0.3,1.8)	2.91 (1.4,5.9)	7.74 (4.1,14.7)	16.12 (8.8,29.6)	23.74 (13.2,42.7)	29.40 (16.5,52.5)	42.89 (23.4,78.5)
Atlantic	6.88 (3.2,14.9)	1.01 (0.3,3.5)	3.46 (1.2,9.6)	8.80 (3.7,21.0)	17.76 (8.4,37.5)	25.93 (13.6,49.3)	31.29 (16.4,59.7)	45.19 (25.8,79.3)
Gulf of Mexico	9.80 (5.0,19.1)	1.52 (0.4,5.3)	5.04 (1.8,13.7)	12.86 (5.8,28.6)	25.38 (12.6,51.0)	35.10 (18.9,65.2)	42.99 (24.5,75.5)	60.66 (37.7,97.6)
Great Lakes	4.35 (2.5,7.6)	0.49 (0.2,1.5)	1.55 (0.5,4.6)	4.53 (2.2,9.4)	10.35 (5.7,18.9)	17.27 (9.9,30.1)	26.05 (14.7,46.3)	44.34 (22.6,87.2)
Inland Northeast	8.52 (5.4,13.4)	0.67 (0.1,3.6)	3.05 (1.1,8.7)	9.87 (5.2,18.6)	23.45 (14.7,37.5)	35.55 (21.6,58.4)	44.13 (26.7,72.9)	67.46 (37.3,121.9)
Inland Midwest	2.50 (1.3,4.8)	0.35 (0.2,0.8)	1.09 (0.5,2.3)	2.90 (1.4,6.0)	6.32 (3.2,12.5)	9.61 (4.9,19.0)	12.59 (6.6,24.1)	20.69 (11.2,38.3)
Inland South	3.97 (2.7,5.9)	0.60 (0.3,1.1)	1.92 (1.1,3.3)	4.90 (3.2,7.6)	10.02 (6.8,14.8)	14.76 (10.0,21.8)	18.52 (12.6,27.2)	27.72 (19.1,40.2)
Inland West	4.77 (2.4,9.6)	0.72 (0.3,1.7)	2.15 (0.9,5.3)	5.62 (2.5,12.4)	12.16 (6.1,24.4)	18.99 (10.6,34.2)	23.93 (13.3,43.1)	36.21 (19.8,66.3)

425  
426

Table C-8. Total shellfish usual fish consumption rate estimates, adults ≥21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	6.35 (4.2,9.6)	1.03 (0.5,2.2)	3.01 (1.7,5.4)	7.56 (4.6,12.5)	15.99 (10.6,24.2)	24.18 (16.9,34.5)	30.09 (20.8,43.5)	45.50 (31.9,64.9)
<b>Gender</b>								
Female	5.24 (3.5,7.9)	0.87 (0.4,1.8)	2.54 (1.4,4.5)	6.29 (3.8,10.3)	13.21 (8.8,19.8)	19.65 (13.7,28.2)	24.33 (16.8,35.3)	36.72 (25.6,52.7)
Male	7.78 (5.0,12.0)	1.36 (0.7,2.8)	3.77 (2.0,7.2)	9.34 (5.5,16.0)	19.96 (13.3,29.9)	29.28 (20.3,42.3)	37.02 (26.2,52.3)	52.89 (36.0,77.7)
<b>Age</b>								
21 to <35 yrs	6.04 (4.3,8.4)	0.91 (0.5,1.6)	2.79 (1.8,4.4)	7.07 (4.9,10.3)	15.25 (10.9,21.3)	23.19 (16.4,32.9)	29.32 (20.8,41.4)	45.67 (31.2,66.8)
35 to <50 yrs	7.01 (4.5,11.0)	1.22 (0.6,2.5)	3.42 (1.9,6.0)	8.29 (4.9,13.9)	17.39 (10.9,27.8)	26.33 (16.6,41.9)	33.10 (20.2,54.1)	49.86 (29.3,84.8)
50 to <65 yrs	7.05 (4.0,12.4)	1.39 (0.5,3.7)	3.70 (1.7,8.3)	8.81 (4.6,16.8)	17.69 (10.5,29.9)	25.40 (15.8,40.8)	30.66 (18.9,49.8)	44.79 (30.0,66.9)
65+ yrs	4.51 (2.3,8.8)	0.65 (0.2,1.9)	1.92 (0.8,4.7)	5.03 (2.1,11.8)	11.56 (5.8,23.1)	18.25 (10.4,32.0)	23.74 (14.2,39.7)	37.46 (25.3,55.4)
<b>WCA (13-49 years)</b>	4.95 (3.4,7.1)	0.69 (0.4,1.3)	2.24 (1.4,3.7)	5.85 (3.8,8.9)	12.53 (8.6,18.4)	18.66 (12.8,27.1)	24.02 (16.8,34.4)	37.23 (25.2,55.0)
<b>Income</b>								
<\$20,000	4.76 (3.0,7.6)	0.65 (0.3,1.6)	2.05 (1.0,4.1)	5.52 (3.2,9.6)	12.05 (7.6,19.1)	18.57 (12.1,28.4)	23.88 (15.7,36.2)	39.56 (26.9,58.2)
>\$20,000	6.54 (4.2,10.1)	1.12 (0.5,2.4)	3.18 (1.7,5.8)	7.84 (4.7,13.2)	16.48 (10.8,25.2)	24.69 (17.0,35.9)	30.59 (20.7,45.3)	45.20 (30.3,67.5)
Income unknown	9.00 (5.2,15.6)	1.51 (0.7,3.2)	4.41 (2.6,7.6)	10.50 (6.4,17.3)	22.62 (12.9,39.6)	34.76 (17.2,70.4)	46.50 (18.6,116.5)	66.11 (26.4,165.5)
<b>Income, finer detail</b>								
<\$20,000	4.76 (3.0,7.6)	0.65 (0.3,1.6)	2.05 (1.0,4.1)	5.52 (3.2,9.6)	12.05 (7.6,19.1)	18.57 (12.1,28.4)	23.88 (15.7,36.2)	39.56 (26.9,58.2)
\$20k-\$45k	5.39 (3.7,7.8)	0.88 (0.5,1.6)	2.50 (1.5,4.1)	6.28 (4.2,9.5)	13.81 (9.1,21.0)	20.43 (13.7,30.6)	25.21 (17.8,35.7)	38.84 (27.4,55.1)
\$45k-\$75k	6.17 (3.7,10.2)	1.01 (0.4,2.6)	2.93 (1.4,6.0)	7.38 (4.1,13.2)	15.80 (9.8,25.5)	23.53 (14.9,37.1)	29.00 (18.1,46.5)	43.18 (27.6,67.6)
\$75k+	7.83 (4.4,14.0)	1.54 (0.6,3.8)	4.08 (1.9,8.9)	9.44 (4.5,20.0)	19.69 (11.6,33.4)	28.64 (18.0,45.5)	35.29 (22.1,56.2)	50.60 (31.8,80.5)
>\$20,000	5.56 (2.8,11.2)	1.03 (0.4,2.8)	2.87 (1.2,6.8)	6.98 (3.4,14.4)	13.18 (6.2,28.2)	20.43 (10.1,41.1)	24.30 (11.7,50.3)	37.71 (18.8,75.6)
Inc Ref/DK	10.28 (5.3,20.0)	1.73 (0.9,3.4)	5.13 (2.7,9.6)	12.28 (6.9,22.0)	26.56 (12.8,55.0)	39.43 (16.8,92.7)	55.89 (16.4,191.0)	68.50 (29.3,160.0)
Inc missing	6.10 (2.5,15.0)	1.03 (0.3,3.8)	2.90 (0.9,9.6)	7.13 (2.3,22.1)	17.46 (6.4,47.9)	22.57 (9.7,52.7)	24.73 (10.4,58.9)	37.44 (18.0,77.8)
<b>Race/Ethnicity</b>								
Mexican American	7.11 (4.4,11.5)	1.34 (0.7,2.6)	3.54 (1.9,6.6)	9.04 (5.7,14.4)	18.09 (11.6,28.2)	25.25 (15.3,41.8)	31.69 (19.0,52.9)	46.21 (24.4,87.7)
Other Hispanic	8.24 (4.7,14.4)	1.21 (0.6,2.4)	3.87 (2.1,7.0)	9.72 (5.4,17.4)	21.39 (11.5,39.8)	31.76 (17.2,58.5)	38.12 (20.4,71.1)	59.42 (31.9,110.8)
White	5.85 (3.4,10.1)	0.95 (0.4,2.3)	2.75 (1.3,5.7)	6.96 (3.7,13.2)	14.74 (8.4,25.7)	22.25 (13.7,36.1)	28.42 (18.1,44.6)	41.99 (26.7,65.9)
Black	5.29 (3.7,7.5)	1.02 (0.5,2.0)	2.83 (1.7,4.7)	6.61 (4.4,9.8)	13.07 (9.2,18.6)	18.57 (13.0,26.5)	22.97 (16.0,32.9)	34.03 (22.9,50.6)
Other race	11.95 (6.2,23.1)	2.20 (1.1,4.4)	6.86 (2.9,16.3)	15.49 (7.5,32.1)	29.57 (14.9,58.7)	41.83 (21.9,79.9)	49.50 (28.0,87.5)	76.70 (36.5,161.0)

429  
430

**Table C-8. Total shellfish usual fish consumption rate estimates, adults ≥21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	3.18 (1.6,6.4)	0.57 (0.2,1.4)	1.52 (0.6,3.8)	3.66 (1.6,8.5)	7.49 (3.4,16.4)	11.35 (5.5,23.3)	14.04 (6.3,31.4)	25.98 (15.7,43.1)
Northeast	10.16 (6.3,16.4)	1.82 (0.7,4.9)	5.45 (2.7,11.2)	12.83 (7.2,22.9)	25.65 (16.8,39.1)	36.22 (24.0,54.6)	44.19 (28.8,67.9)	63.65 (40.2,100.8)
South	6.89 (4.5,10.6)	1.33 (0.7,2.5)	3.60 (2.1,6.1)	8.52 (5.3,13.6)	17.16 (10.8,27.3)	24.78 (15.9,38.6)	30.72 (20.3,46.6)	45.31 (31.0,66.3)
West	6.41 (3.7,11.1)	1.23 (0.5,3.0)	3.41 (1.6,7.1)	7.95 (4.2,15.1)	16.30 (9.9,26.9)	23.45 (14.7,37.4)	28.40 (17.5,46.2)	42.01 (26.4,66.8)
<b>Coastal Status</b>								
Noncoastal	5.27 (3.2,8.7)	0.83 (0.4,1.8)	2.37 (1.2,4.7)	5.98 (3.3,10.9)	12.94 (7.7,21.7)	20.22 (12.9,31.8)	26.12 (16.5,41.4)	41.57 (26.3,65.7)
Coastal	8.05 (5.0,12.9)	1.58 (0.8,3.3)	4.43 (2.4,8.1)	10.22 (6.0,17.5)	20.19 (12.8,31.8)	28.47 (18.7,43.3)	34.86 (23.2,52.3)	49.89 (34.5,72.2)
<b>Coastal/Inland Region</b>								
Pacific	6.97 (3.7,13.1)	1.48 (0.6,3.4)	3.96 (1.9,8.3)	9.08 (4.7,17.6)	17.25 (9.3,32.2)	24.42 (13.5,44.0)	29.20 (16.1,52.9)	40.71 (21.5,77.0)
Atlantic	8.47 (4.2,17.0)	1.95 (0.7,5.1)	5.13 (2.3,11.6)	11.11 (5.2,23.7)	20.78 (10.7,40.2)	28.22 (14.8,53.7)	33.96 (18.0,63.9)	48.79 (29.0,82.2)
Gulf of Mexico	12.85 (6.8,24.3)	3.21 (1.1,9.1)	7.88 (3.3,18.9)	17.27 (8.0,37.1)	29.60 (16.1,54.5)	41.15 (22.9,74.0)	49.27 (29.2,83.1)	73.41 (40.7,132.5)
Great Lakes	4.54 (2.6,7.8)	0.69 (0.2,2.6)	1.94 (0.6,5.9)	4.85 (2.1,10.9)	10.10 (5.1,20.1)	15.90 (8.9,28.5)	25.98 (14.0,48.4)	44.34 (20.0,98.2)
Inland Northeast	11.10 (6.8,18.0)	1.66 (0.5,5.1)	5.45 (2.6,11.5)	13.83 (8.0,24.0)	28.96 (17.3,48.6)	39.50 (23.7,65.9)	49.86 (29.3,84.8)	78.07 (38.7,157.4)
Inland Midwest	2.82 (1.3,6.0)	0.54 (0.2,1.2)	1.45 (0.6,3.3)	3.42 (1.5,7.7)	7.03 (3.3,14.9)	10.18 (4.7,22.1)	12.79 (5.8,28.1)	20.01 (9.5,42.3)
Inland South	4.77 (3.2,7.2)	0.98 (0.5,1.9)	2.63 (1.5,4.5)	5.93 (3.9,9.1)	11.75 (7.5,18.4)	16.33 (11.1,24.1)	20.87 (13.5,32.3)	31.29 (19.6,49.9)
Inland West	5.80 (2.9,11.6)	1.02 (0.3,3.5)	2.75 (0.9,8.4)	6.93 (3.1,15.8)	14.83 (7.9,27.7)	22.16 (12.9,38.0)	26.55 (14.6,48.4)	42.31 (25.8,69.3)

431  
432

DRAFT DOCUMENT

Table C-9. Total shellfish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	2.50 (1.5,4.2)	0.21 (0.1,0.4)	0.72 (0.4,1.4)	2.32 (1.3,4.2)	6.16 (3.6,10.5)	10.71 (6.4,17.8)	14.43 (8.2,25.4)	27.85 (16.2,47.8)
<b>Gender</b>								
Female	2.11 (1.3,3.5)	0.18 (0.1,0.4)	0.58 (0.3,1.2)	1.93 (1.0,3.6)	5.27 (3.1,8.9)	9.41 (5.7,15.5)	12.77 (7.8,20.9)	24.16 (14.2,41.1)
Male	2.90 (1.7,5.0)	0.25 (0.1,0.5)	0.88 (0.5,1.6)	2.74 (1.5,5.0)	7.15 (4.0,12.6)	12.09 (6.7,21.8)	16.43 (8.7,31.0)	30.85 (17.0,55.9)
<b>Age</b>								
1 to <3 yrs	1.01 (0.5,2.0)	0.10 (0.0,0.3)	0.30 (0.1,0.7)	0.92 (0.4,2.0)	2.35 (1.1,4.9)	4.17 (1.9,9.0)	6.02 (2.8,13.1)	12.49 (5.2,30.3)
3 to <6 yrs	1.87 (1.0,3.4)	0.22 (0.1,0.5)	0.74 (0.3,1.6)	2.15 (1.1,4.2)	4.76 (2.5,9.1)	7.39 (4.0,13.7)	10.02 (5.8,17.4)	16.78 (9.6,29.2)
6 to <11 yrs	1.48 (0.7,3.3)	0.13 (0.0,0.5)	0.44 (0.1,1.4)	1.41 (0.5,3.7)	3.61 (1.6,8.2)	6.25 (3.0,13.1)	9.66 (4.9,19.0)	15.89 (6.7,37.6)
11 to <16 yrs	2.19 (0.5,8.9)	0.22 (0.1,0.5)	0.69 (0.2,1.9)	2.18 (0.7,7.0)	5.30 (1.2,24.1)	9.29 (2.0,43.1)	12.25 (2.3,65.8)	19.29 (2.4,157.1)
16 to <18 yrs	3.23 (1.8,5.7)	0.42 (0.2,1.0)	1.22 (0.6,2.6)	3.79 (1.9,7.4)	7.73 (4.0,15.0)	12.55 (6.9,22.8)	17.83 (10.0,31.8)	30.00 (16.2,55.6)
18 to <21 yrs	5.64 (2.6,12.2)	0.61 (0.2,1.6)	1.93 (0.9,4.1)	6.15 (2.8,13.7)	14.08 (6.8,29.4)	24.84 (9.6,64.5)	32.51 (12.5,84.4)	51.79 (20.7,129.5)
<b>Income</b>								
<\$20,000	2.32 (1.4,3.8)	0.21 (0.1,0.4)	0.67 (0.3,1.4)	2.19 (1.2,4.1)	5.85 (3.5,9.8)	10.87 (6.8,17.3)	14.17 (9.0,22.4)	23.63 (14.4,38.8)
>\$20,000	2.44 (1.4,4.3)	0.21 (0.1,0.4)	0.71 (0.4,1.4)	2.29 (1.2,4.2)	6.03 (3.4,10.8)	10.38 (5.9,18.2)	14.02 (7.5,26.3)	26.66 (14.7,48.3)
Income unknown	4.64 (1.9,11.2)	0.30 (0.1,0.8)	1.23 (0.5,2.9)	4.32 (1.7,10.7)	11.20 (4.5,27.6)	25.21 (5.7,110.9)	31.03 (9.1,105.8)	47.21 (16.8,132.8)
<b>Income, finer detail</b>								
<\$20,000	2.32 (1.4,3.8)	0.21 (0.1,0.4)	0.67 (0.3,1.4)	2.19 (1.2,4.1)	5.85 (3.5,9.8)	10.87 (6.8,17.3)	14.17 (9.0,22.4)	23.63 (14.4,38.8)
\$20k-\$45k	2.22 (1.3,3.7)	0.20 (0.1,0.4)	0.66 (0.4,1.2)	2.10 (1.2,3.6)	5.55 (3.3,9.2)	9.41 (5.5,16.0)	12.98 (7.6,22.2)	24.02 (12.8,45.2)
\$45k-\$75k	2.09 (0.9,4.7)	0.18 (0.1,0.5)	0.62 (0.3,1.4)	2.04 (0.9,4.6)	5.10 (2.1,12.4)	8.29 (3.1,21.9)	12.30 (5.7,26.8)	20.24 (7.8,52.8)
\$75k+	2.85 (1.5,5.5)	0.24 (0.1,0.5)	0.81 (0.4,1.7)	2.59 (1.2,5.5)	7.13 (3.7,13.7)	12.17 (6.0,24.6)	16.65 (7.7,35.9)	31.26 (15.0,65.2)
>\$20,000	2.48 (1.2,5.3)	0.29 (0.1,0.8)	0.95 (0.4,2.4)	2.74 (1.1,6.6)	6.75 (2.9,15.8)	9.80 (3.9,24.7)	11.76 (4.0,34.3)	18.06 (5.8,56.4)
Inc Ref/DK	5.31 (1.9,15.0)	0.39 (0.1,1.2)	1.41 (0.5,4.0)	4.87 (1.6,14.8)	12.25 (4.1,36.5)	28.75 (5.9,139.0)	36.14 (9.4,138.6)	47.21 (17.6,126.8)
Inc missing	3.72 (1.2,11.1)	0.24 (0.1,0.9)	0.88 (0.3,3.0)	3.40 (1.1,10.4)	8.40 (3.1,22.9)	17.06 (4.7,62.2)	31.03 (3.5,272.0)	42.68 (8.1,226.0)
<b>Race/Ethnicity</b>								
Mexican American	2.32 (1.2,4.6)	0.21 (0.1,0.5)	0.70 (0.3,1.5)	2.25 (1.2,4.4)	5.70 (3.0,10.9)	9.88 (5.4,18.0)	13.51 (6.9,26.7)	23.95 (9.8,58.4)
Other Hispanic	1.48 (0.2,13.0)	0.11 (0.0,0.7)	0.35 (0.0,3.2)	1.33 (0.1,11.9)	3.54 (0.3,43.5)	6.51 (0.6,65.6)	9.96 (1.3,75.1)	15.15 (1.5,153.1)
White	2.23 (1.2,4.0)	0.20 (0.1,0.4)	0.63 (0.3,1.3)	2.09 (1.1,3.9)	5.43 (3.0,9.9)	9.14 (4.9,16.9)	12.92 (6.9,24.3)	25.16 (12.6,50.4)
Black	2.36 (1.0,5.7)	0.29 (0.1,0.8)	0.87 (0.3,2.5)	2.47 (0.9,6.5)	5.98 (2.6,13.9)	9.82 (4.5,21.4)	12.98 (5.7,29.8)	20.61 (7.4,57.1)
Other race	6.17 (2.6,14.6)	0.61 (0.2,1.7)	2.09 (0.9,5.1)	7.17 (2.6,19.6)	16.32 (6.6,40.6)	25.38 (10.2,63.1)	35.81 (12.7,100.9)	51.86 (22.1,122.0)

435  
436  
437

Table C-9. Total shellfish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.22 (1.0,5.0)	0.15 (0.0,0.4)	0.51 (0.2,1.3)	1.63 (0.7,3.9)	5.09 (2.2,11.9)	10.44 (4.4,24.9)	15.75 (6.3,39.7)	29.84 (10.5,84.8)
Northeast	2.29 (0.7,7.3)	0.18 (0.0,1.2)	0.61 (0.1,3.9)	2.16 (0.5,9.6)	5.53 (1.5,21.0)	9.31 (2.8,31.0)	12.47 (3.7,41.9)	26.93 (12.3,58.7)
South	2.18 (1.3,3.8)	0.26 (0.1,0.6)	0.79 (0.4,1.6)	2.36 (1.3,4.3)	5.66 (3.3,9.6)	8.64 (4.7,15.8)	11.89 (6.9,20.3)	18.95 (10.6,33.8)
West	3.29 (1.6,6.7)	0.25 (0.1,0.5)	0.97 (0.5,2.0)	3.05 (1.5,6.1)	8.31 (4.0,17.4)	13.89 (6.7,28.9)	19.18 (8.7,42.1)	37.25 (14.7,94.2)
<b>Coastal Status</b>								
Noncoastal	1.99 (1.2,3.3)	0.20 (0.1,0.4)	0.63 (0.3,1.2)	2.01 (1.1,3.5)	5.01 (3.0,8.4)	8.41 (5.1,13.9)	11.71 (7.1,19.4)	19.30 (11.2,33.3)
Coastal	3.31 (1.7,6.5)	0.24 (0.1,0.7)	0.87 (0.3,2.2)	2.97 (1.3,6.8)	8.23 (3.9,17.2)	14.07 (6.6,29.9)	19.80 (9.6,40.9)	37.52 (19.5,72.3)
<b>Coastal/Inland Region</b>								
Pacific	4.01 (1.7,9.7)	0.17 (0.1,0.4)	0.76 (0.4,1.6)	2.87 (1.4,5.8)	10.85 (4.3,27.6)	19.30 (6.9,54.0)	29.88 (8.7,103.0)	51.88 (14.0,192.2)
Atlantic	2.58 (0.7,9.7)	0.25 (0.0,1.4)	0.82 (0.2,4.3)	2.53 (0.5,12.6)	6.55 (1.6,26.4)	10.45 (2.6,42.3)	13.12 (2.8,62.2)	28.22 (11.8,67.5)
Gulf of Mexico	3.05 (1.1,8.1)	0.38 (0.1,1.6)	1.30 (0.3,4.9)	3.62 (1.1,12.0)	7.98 (2.9,21.9)	12.16 (4.8,31.1)	16.28 (6.2,43.0)	23.08 (10.3,51.5)
Great Lakes	3.93 (1.3,11.8)	0.26 (0.1,0.7)	0.87 (0.3,2.6)	3.46 (1.3,9.5)	11.17 (3.5,35.5)	18.58 (5.4,63.4)	26.13 (7.3,93.0)	40.16 (11.1,145.6)
Inland Northeast	1.66 (0.3,8.4)	0.14 (0.0,1.6)	0.43 (0.0,6.1)	1.53 (0.2,13.5)	4.25 (0.8,22.9)	7.10 (1.6,31.8)	9.01 (1.8,44.8)	13.39 (2.1,84.7)
Inland Midwest	1.67 (0.6,4.4)	0.12 (0.0,0.5)	0.42 (0.1,1.5)	1.33 (0.5,3.9)	3.73 (1.5,9.5)	7.17 (2.6,19.5)	11.39 (3.3,39.4)	24.02 (4.8,120.1)
Inland South	1.93 (1.2,3.1)	0.25 (0.1,0.6)	0.71 (0.4,1.4)	2.13 (1.2,3.7)	4.92 (3.0,8.0)	7.53 (4.6,12.3)	10.21 (6.3,16.6)	17.52 (10.5,29.1)
Inland West	2.70 (1.2,6.2)	0.33 (0.1,0.8)	1.17 (0.4,3.3)	3.17 (1.3,8.0)	7.13 (2.9,17.5)	11.12 (4.7,26.5)	13.84 (5.9,32.3)	20.50 (7.1,59.1)

438

439  
440

**Table C-10. Marine fish usual fish consumption rate estimates, all ages**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	10.78 (8.3,14.0)	2.36 (1.3,4.4)	7.02 (4.4,11.1)	14.80 (11.1,19.8)	25.71 (20.4,32.5)	34.12 (27.3,42.7)	40.50 (31.9,51.5)	56.36 (43.8,72.5)
<b>Gender</b>								
Female	9.92 (7.4,13.3)	2.18 (1.1,4.2)	6.59 (3.9,11.1)	13.73 (9.9,19.0)	23.52 (18.3,30.2)	31.30 (24.7,39.7)	36.90 (29.0,46.9)	50.88 (39.2,66.1)
Male	11.82 (9.2,15.2)	2.58 (1.4,4.6)	7.62 (5.0,11.5)	16.26 (12.2,21.7)	28.23 (22.3,35.7)	37.50 (29.7,47.3)	44.46 (34.7,56.9)	62.79 (48.3,81.7)
<b>Age</b>								
1 to <3 yrs	3.27 (1.8,5.8)	0.45 (0.2,0.9)	1.51 (0.7,3.4)	3.76 (2.1,6.9)	8.06 (4.7,13.8)	13.33 (6.6,26.8)	16.74 (9.1,30.8)	25.29 (14.3,44.6)
3 to <6 yrs	4.47 (2.3,8.9)	0.80 (0.3,2.4)	2.55 (0.9,7.2)	5.83 (2.8,12.1)	11.13 (5.7,21.8)	15.55 (8.5,28.6)	18.36 (11.2,30.1)	25.82 (16.4,40.7)
6 to <11 yrs	6.10 (3.0,12.3)	0.95 (0.4,2.0)	3.04 (1.5,6.3)	7.90 (3.9,16.1)	16.04 (7.2,35.9)	22.28 (10.6,46.9)	27.50 (12.9,58.5)	38.96 (18.8,80.7)
11 to <16 yrs	5.22 (3.3,8.3)	0.89 (0.4,1.9)	2.65 (1.3,5.3)	6.75 (4.0,11.4)	12.96 (8.0,21.0)	18.85 (11.6,30.7)	23.22 (14.2,38.1)	34.83 (20.5,59.3)
16 to <18 yrs	6.85 (4.4,10.7)	1.04 (0.6,1.9)	3.37 (1.8,6.1)	9.45 (5.3,17.0)	17.30 (11.5,26.0)	23.73 (16.4,34.4)	29.32 (19.9,43.2)	39.02 (25.8,59.1)
18 to <21 yrs	10.83 (5.7,20.7)	1.59 (0.8,3.1)	4.81 (2.7,8.5)	13.23 (7.4,23.6)	28.61 (14.1,58.2)	39.99 (20.7,77.4)	47.22 (25.3,88.1)	84.81 (28.2,254.7)
21 to <35 yrs	10.52 (7.6,14.6)	2.72 (1.2,6.1)	7.26 (3.9,13.5)	14.09 (9.9,20.0)	23.75 (18.4,30.6)	32.01 (25.2,40.6)	37.98 (29.7,48.5)	52.46 (38.2,72.0)
35 to <50 yrs	11.78 (9.1,15.3)	4.08 (2.7,6.2)	8.98 (6.6,12.3)	16.22 (12.6,20.8)	25.71 (18.8,35.1)	32.97 (22.4,48.6)	38.15 (24.3,59.9)	49.80 (28.9,85.8)
50 to <65 yrs	17.25 (10.8,27.6)	6.18 (3.1,12.3)	13.10 (7.4,23.2)	23.73 (14.7,38.4)	37.49 (24.2,58.2)	48.33 (30.8,75.9)	56.36 (35.8,88.8)	70.75 (48.8,102.6)
65+ yrs	11.69 (8.5,16.1)	3.69 (2.3,6.0)	8.43 (5.8,12.2)	16.32 (12.2,21.8)	26.30 (18.6,37.2)	34.06 (23.1,50.3)	39.34 (25.0,61.9)	51.11 (30.3,86.1)
<b>Income</b>								
<\$20,000	8.48 (6.6,10.9)	1.54 (1.0,2.5)	4.90 (3.4,7.0)	11.39 (8.7,15.0)	20.72 (16.0,26.8)	28.61 (22.3,36.6)	34.84 (27.0,44.9)	49.32 (36.8,66.2)
>\$20,000	11.18 (8.5,14.7)	2.57 (1.3,5.0)	7.43 (4.6,11.9)	15.37 (11.4,20.6)	26.28 (20.8,33.2)	34.93 (27.7,44.0)	41.26 (32.2,52.9)	57.29 (44.5,73.8)
Income unknown	12.25 (6.4,23.4)	2.70 (0.8,9.3)	8.17 (2.9,22.9)	17.87 (7.8,41.2)	29.36 (16.6,52.0)	37.87 (24.4,58.8)	42.94 (30.2,61.0)	52.82 (34.7,80.3)
<b>Income, finer detail</b>								
<\$20,000	8.48 (6.6,10.9)	1.54 (1.0,2.5)	4.90 (3.4,7.0)	11.39 (8.7,15.0)	20.72 (16.0,26.8)	28.61 (22.3,36.6)	34.84 (27.0,44.9)	49.32 (36.8,66.2)
\$20k-\$45k	9.54 (6.8,13.5)	2.02 (1.0,3.9)	6.01 (3.6,10.1)	12.81 (8.9,18.4)	22.59 (16.9,30.2)	30.69 (23.1,40.7)	36.56 (27.7,48.3)	51.11 (38.5,67.9)
\$45k-\$75k	10.75 (7.9,14.6)	2.43 (1.3,4.5)	7.05 (4.4,11.2)	14.69 (10.5,20.6)	25.09 (18.5,34.0)	33.64 (24.9,45.5)	40.17 (29.2,55.3)	58.40 (43.0,79.2)
\$75k+	12.85 (9.9,16.6)	3.40 (1.6,7.1)	9.17 (5.8,14.5)	18.09 (13.6,24.1)	29.62 (23.5,37.4)	38.79 (30.6,49.2)	45.24 (35.5,57.7)	59.26 (44.5,78.9)
>\$20,000	10.67 (6.5,17.6)	2.83 (1.2,6.4)	7.29 (3.8,14.1)	14.40 (8.7,23.9)	24.55 (15.5,38.9)	31.55 (19.8,50.3)	36.92 (22.9,59.5)	55.21 (31.8,96.0)
Inc Ref/DK	12.61 (6.2,25.8)	2.93 (0.8,10.5)	8.82 (2.8,27.4)	18.35 (7.7,43.7)	29.38 (16.3,53.0)	37.74 (23.2,61.5)	40.43 (27.9,58.7)	51.51 (31.6,84.1)
Inc missing	11.56 (5.1,26.0)	2.24 (0.6,9.1)	7.10 (2.3,22.3)	16.39 (6.1,44.3)	28.83 (12.7,65.2)	38.00 (19.2,75.1)	46.58 (23.0,94.4)	55.70 (30.1,103.1)
<b>Race/Ethnicity</b>								
Mexican American	8.41 (5.7,12.4)	1.48 (0.9,2.6)	5.05 (2.8,9.1)	11.62 (7.4,18.2)	20.56 (14.3,29.6)	27.87 (19.7,39.3)	33.63 (24.1,47.0)	46.60 (33.9,64.0)
Other Hispanic	8.24 (5.9,11.5)	1.43 (0.9,2.4)	5.07 (3.4,7.6)	11.53 (8.2,16.2)	20.10 (14.4,28.0)	26.82 (18.1,39.8)	32.48 (21.6,49.0)	45.65 (28.1,74.2)
White	10.93 (8.3,14.4)	2.54 (1.2,5.2)	7.25 (4.6,11.5)	14.87 (11.2,19.7)	25.76 (20.1,33.0)	34.19 (26.5,44.1)	40.65 (31.0,53.3)	56.75 (43.0,74.8)
Black	9.89 (7.5,13.1)	2.19 (1.4,3.5)	6.43 (4.2,9.9)	13.68 (9.8,19.0)	24.05 (17.8,32.5)	31.81 (24.4,41.4)	36.84 (29.1,46.7)	49.24 (36.8,65.8)
Other race	16.76 (12.0,23.3)	4.61 (2.1,10.1)	13.07 (6.3,26.9)	23.20 (16.7,32.3)	36.99 (29.6,46.3)	46.09 (35.9,59.1)	57.27 (43.1,76.2)	79.75 (54.2,117.4)

441

442  
443

Table C-10. Marine fish usual fish consumption rate estimates, all ages (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	8.19 (5.6,12.1)	1.72 (0.8,3.8)	5.22 (2.9,9.5)	10.98 (7.3,16.6)	19.57 (13.5,28.3)	26.68 (18.9,37.6)	31.70 (22.6,44.5)	44.64 (31.7,62.9)
Northeast	13.97 (10.6,18.3)	3.04 (1.8,5.0)	9.25 (6.8,12.6)	19.55 (15.0,25.5)	32.96 (25.0,43.5)	42.70 (32.1,56.8)	51.00 (38.3,67.9)	74.26 (48.9,112.7)
South	10.04 (7.7,13.1)	2.26 (1.3,4.0)	6.69 (4.2,10.6)	13.73 (10.1,18.6)	23.36 (18.4,29.7)	31.29 (24.3,40.2)	37.35 (28.7,48.6)	51.36 (37.4,70.4)
West	12.47 (9.1,17.1)	3.05 (1.5,6.1)	8.86 (5.3,14.7)	17.56 (12.4,24.9)	29.29 (21.9,39.2)	37.49 (29.0,48.5)	43.76 (33.9,56.5)	57.17 (43.2,75.7)
<b>Coastal Status</b>								
Noncoastal	10.42 (6.9,15.6)	2.25 (1.1,4.7)	6.72 (3.7,12.2)	14.10 (9.2,21.5)	24.55 (17.5,34.4)	33.60 (23.8,47.4)	39.86 (28.8,55.2)	56.75 (38.8,83.1)
Coastal	11.37 (8.8,14.6)	2.54 (1.6,3.9)	7.56 (5.6,10.1)	15.97 (12.4,20.6)	26.95 (20.1,36.1)	35.18 (24.8,49.8)	41.40 (28.1,60.9)	55.21 (35.8,85.1)
<b>Coastal/Inland Region</b>								
Pacific	11.78 (9.2,15.1)	2.52 (1.6,3.9)	8.31 (5.7,12.0)	17.05 (13.2,22.1)	28.30 (22.2,36.0)	35.86 (26.0,49.4)	41.82 (29.1,60.1)	51.53 (28.2,94.1)
Atlantic	12.29 (8.0,18.9)	3.26 (2.1,5.1)	8.60 (5.5,13.3)	17.29 (11.2,26.6)	28.18 (17.4,45.5)	36.60 (22.5,59.6)	42.39 (25.0,72.0)	56.42 (33.1,96.2)
Gulf of Mexico	10.76 (6.7,17.3)	2.21 (0.9,5.2)	6.58 (3.0,14.4)	14.57 (7.7,27.7)	26.05 (15.9,42.6)	34.37 (23.2,50.9)	41.85 (27.7,63.2)	62.44 (37.7,103.5)
Great Lakes	8.45 (5.4,13.3)	1.56 (1.0,2.5)	4.78 (2.9,7.8)	10.78 (5.9,19.8)	21.36 (13.5,33.8)	29.67 (18.9,46.5)	35.14 (21.1,58.7)	52.95 (37.2,75.4)
Inland Northeast	14.56 (9.1,23.3)	2.58 (1.6,4.2)	9.19 (5.7,14.8)	20.17 (12.9,31.5)	35.84 (21.3,60.4)	45.78 (29.0,72.2)	56.76 (32.9,97.9)	81.36 (39.9,165.8)
Inland Midwest	8.10 (4.4,15.0)	1.79 (0.6,5.0)	5.34 (2.4,11.9)	11.00 (5.9,20.6)	19.21 (10.7,34.4)	25.82 (14.7,45.3)	30.27 (18.3,50.2)	41.19 (25.7,65.9)
Inland South	9.16 (6.2,13.6)	2.00 (1.0,3.9)	6.18 (3.3,11.6)	12.46 (8.2,18.9)	21.08 (15.4,28.8)	28.43 (20.8,38.9)	34.21 (25.0,46.8)	46.00 (33.3,63.5)
Inland West	13.15 (7.3,23.7)	3.62 (1.2,10.8)	9.45 (4.5,19.9)	17.94 (10.3,31.2)	30.20 (17.6,51.7)	39.37 (23.2,66.8)	46.84 (27.4,80.2)	60.72 (37.7,97.8)

444

445  
446

**Table C-11. Marine fish usual fish consumption rate estimates, adults ≥21 years**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	12.66 (10.0,16.1)	3.93 (2.2,6.9)	9.15 (6.2,13.4)	17.36 (13.4,22.6)	28.32 (22.7,35.4)	36.93 (29.5,46.3)	43.24 (33.8,55.3)	59.03 (45.4,76.7)
<b>Gender</b>								
Female	11.59 (8.8,15.3)	3.59 (1.9,6.9)	8.44 (5.4,13.2)	15.83 (11.9,21.0)	26.03 (20.4,33.2)	33.80 (26.7,42.7)	39.54 (30.8,50.7)	53.12 (40.8,69.1)
Male	14.03 (11.1,17.8)	4.43 (2.7,7.2)	10.20 (7.2,14.4)	19.21 (15.0,24.7)	31.36 (24.9,39.5)	40.57 (31.6,52.1)	47.92 (36.9,62.2)	64.05 (47.7,86.0)
<b>Age</b>								
21 to <35 yrs	10.52 (7.6,14.6)	2.72 (1.2,6.1)	7.26 (3.9,13.5)	14.09 (9.9,20.0)	23.75 (18.4,30.6)	32.01 (25.2,40.6)	37.98 (29.7,48.5)	52.46 (38.2,72.0)
35 to <50 yrs	11.78 (9.1,15.3)	4.08 (2.7,6.2)	8.98 (6.6,12.3)	16.22 (12.6,20.8)	25.71 (18.8,35.1)	32.97 (22.4,48.6)	38.15 (24.3,59.9)	49.80 (28.9,85.8)
50 to <65 yrs	17.25 (10.8,27.6)	6.18 (3.1,12.3)	13.10 (7.4,23.2)	23.73 (14.7,38.4)	37.49 (24.2,58.2)	48.33 (30.8,75.9)	56.36 (35.8,88.8)	70.75 (48.8,102.6)
65+ yrs	11.69 (8.5,16.1)	3.69 (2.3,6.0)	8.43 (5.8,12.2)	16.32 (12.2,21.8)	26.30 (18.6,37.2)	34.06 (23.1,50.3)	39.34 (25.0,61.9)	51.11 (30.3,86.1)
<b>WCA (13-49 years)</b>	9.52 (7.5,12.1)	2.30 (1.2,4.3)	6.69 (4.0,11.2)	13.24 (10.0,17.6)	21.96 (17.8,27.1)	29.09 (23.4,36.2)	34.16 (26.6,43.9)	44.94 (31.7,63.7)
<b>Income</b>								
<\$20,000	10.13 (7.9,13.0)	2.38 (1.5,3.9)	6.64 (4.7,9.4)	13.68 (10.4,17.9)	23.47 (18.4,29.9)	31.73 (24.8,40.5)	37.51 (28.5,49.3)	52.93 (38.5,72.8)
>\$20,000	13.07 (10.2,16.7)	4.27 (2.4,7.5)	9.59 (6.5,14.1)	17.85 (13.8,23.1)	28.95 (23.1,36.3)	37.61 (29.7,47.6)	44.17 (34.5,56.6)	59.38 (45.5,77.5)
Income unknown	14.05 (7.7,25.5)	4.33 (1.2,16.2)	10.70 (4.0,28.3)	20.18 (9.9,41.2)	30.95 (19.8,48.4)	39.90 (26.7,59.5)	44.96 (31.9,63.5)	64.21 (38.0,108.4)
<b>Income, finer detail</b>								
<\$20,000	10.13 (7.9,13.0)	2.38 (1.5,3.9)	6.64 (4.7,9.4)	13.68 (10.4,17.9)	23.47 (18.4,29.9)	31.73 (24.8,40.5)	37.51 (28.5,49.3)	52.93 (38.5,72.8)
\$20k-\$45k	10.99 (8.2,14.7)	3.28 (1.7,6.3)	7.78 (4.9,12.3)	14.83 (10.9,20.2)	24.76 (19.1,32.2)	33.08 (25.3,43.2)	38.41 (29.3,50.3)	51.69 (38.4,69.6)
\$45k-\$75k	12.49 (9.3,16.8)	3.87 (2.3,6.4)	8.96 (6.0,13.4)	16.95 (12.4,23.3)	27.66 (20.6,37.2)	36.28 (27.1,48.5)	43.17 (31.7,58.7)	60.72 (44.6,82.7)
\$75k+	15.27 (12.1,19.3)	5.88 (3.3,10.6)	11.61 (8.5,15.9)	20.82 (16.4,26.4)	32.66 (26.0,41.0)	41.76 (32.7,53.4)	48.14 (37.0,62.6)	61.76 (45.1,84.6)
>\$20,000	12.18 (7.5,19.8)	3.93 (1.9,8.2)	8.83 (4.9,15.9)	16.61 (10.1,27.3)	27.18 (17.0,43.4)	33.96 (21.2,54.3)	41.21 (25.6,66.2)	59.38 (33.0,106.7)
Inc Ref/DK	14.61 (7.4,29.0)	4.62 (1.2,17.8)	11.39 (4.0,32.7)	21.06 (9.5,46.7)	31.40 (18.9,52.2)	39.90 (26.0,61.2)	43.96 (30.4,63.6)	66.21 (34.0,129.1)
Inc missing	12.80 (6.2,26.5)	3.72 (0.8,18.3)	8.51 (3.4,21.2)	17.84 (7.8,40.5)	29.85 (14.8,60.2)	39.09 (20.1,75.9)	46.58 (24.6,88.1)	60.92 (33.1,112.2)
<b>Race/Ethnicity</b>								
Mexican American	11.01 (7.1,17.0)	2.95 (1.6,5.6)	8.05 (4.3,15.1)	15.34 (9.2,25.5)	24.60 (16.6,36.5)	32.61 (22.0,48.3)	37.82 (26.9,53.2)	51.54 (36.7,72.4)
Other Hispanic	10.88 (7.9,15.1)	3.35 (1.7,6.5)	7.80 (5.0,12.1)	14.71 (10.5,20.6)	23.59 (16.7,33.3)	31.29 (21.4,45.8)	38.13 (26.3,55.4)	49.20 (28.2,85.9)
White	12.40 (9.7,15.8)	3.89 (2.3,6.6)	8.96 (6.3,12.8)	16.94 (13.2,21.8)	27.72 (21.6,35.6)	36.21 (27.7,47.3)	42.70 (32.2,56.6)	58.28 (43.9,77.3)
Black	12.41 (8.8,17.4)	3.99 (1.9,8.2)	9.10 (5.4,15.3)	17.17 (11.7,25.3)	27.88 (20.3,38.2)	35.39 (27.5,45.5)	40.86 (31.8,52.5)	52.99 (38.7,72.6)
Other race	19.88 (14.7,26.8)	7.38 (4.2,13.0)	16.13 (9.8,26.7)	27.20 (19.8,37.3)	40.91 (32.3,51.9)	52.09 (39.7,68.3)	62.58 (45.3,86.5)	83.12 (55.7,124.1)

447  
448

**Table C-11. Marine fish usual fish consumption rate estimates, adults ≥21 years (continued)**

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	9.78 (6.6,14.5)	2.92 (1.4,5.9)	6.80 (4.0,11.5)	13.22 (8.6,20.4)	22.25 (15.2,32.7)	29.10 (20.6,41.1)	33.97 (23.7,48.7)	49.65 (34.1,72.3)
Northeast	16.09 (12.6,20.5)	5.13 (3.4,7.8)	12.20 (9.2,16.2)	22.32 (17.4,28.6)	35.79 (27.7,46.2)	44.96 (34.0,59.5)	52.36 (39.4,69.6)	70.86 (53.2,94.5)
South	11.82 (9.2,15.3)	3.78 (2.1,6.8)	8.60 (5.7,12.9)	16.07 (12.1,21.3)	26.22 (20.6,33.4)	34.13 (26.5,43.9)	39.92 (29.9,53.3)	54.34 (38.9,75.9)
West	14.67 (10.9,19.7)	5.35 (2.9,9.8)	11.28 (7.5,17.0)	19.94 (15.0,26.6)	32.08 (24.2,42.4)	40.59 (31.2,52.8)	47.22 (36.3,61.4)	60.20 (45.0,80.6)
<b>Coastal Status</b>								
Noncoastal	12.17 (8.3,17.8)	3.72 (1.8,7.9)	8.66 (5.1,14.7)	16.51 (11.2,24.4)	27.30 (19.7,37.8)	35.98 (26.3,49.2)	42.54 (31.1,58.2)	58.94 (41.4,84.0)
Coastal	13.43 (10.1,17.8)	4.30 (3.0,6.2)	9.98 (7.5,13.3)	18.64 (14.2,24.5)	29.85 (21.8,40.9)	38.38 (27.0,54.6)	44.17 (29.2,66.7)	59.25 (39.9,88.0)
<b>Coastal/Inland Region</b>								
Pacific	13.89 (10.6,18.2)	4.84 (3.1,7.6)	10.68 (7.7,14.8)	19.09 (14.3,25.5)	30.89 (23.6,40.4)	39.14 (29.2,52.5)	43.79 (29.3,65.4)	54.14 (30.4,96.3)
Atlantic	14.55 (9.2,23.0)	5.29 (3.2,8.7)	11.16 (7.1,17.4)	20.25 (13.2,31.1)	30.95 (18.7,51.2)	39.70 (24.0,65.5)	45.57 (26.6,78.1)	60.79 (36.5,101.3)
Gulf of Mexico	12.12 (7.7,19.0)	3.32 (1.7,6.3)	8.16 (4.1,16.3)	16.51 (9.1,30.0)	27.87 (17.4,44.5)	37.47 (23.0,61.0)	44.21 (27.6,70.9)	60.92 (33.1,112.0)
Great Lakes	10.38 (6.6,16.3)	2.61 (1.3,5.1)	6.73 (3.9,11.7)	13.43 (7.6,23.7)	24.52 (16.1,37.3)	32.64 (20.6,51.8)	39.20 (25.1,61.2)	62.01 (41.3,93.2)
Inland Northeast	16.53 (10.9,25.1)	4.44 (2.5,8.0)	12.31 (7.5,20.3)	22.83 (15.3,34.0)	37.42 (24.8,56.4)	48.31 (31.8,73.4)	56.54 (36.9,86.5)	76.33 (46.9,124.2)
Inland Midwest	9.61 (5.2,17.8)	2.98 (1.2,7.5)	6.81 (3.3,13.9)	13.14 (6.8,25.6)	21.41 (12.0,38.2)	27.96 (16.4,47.7)	33.06 (19.6,55.8)	46.18 (26.1,81.8)
Inland South	10.85 (7.3,16.2)	3.49 (1.5,8.1)	8.01 (4.4,14.5)	14.65 (9.7,22.1)	23.34 (17.3,31.4)	31.14 (22.8,42.4)	36.74 (27.2,49.5)	49.10 (34.8,69.2)
Inland West	15.51 (8.8,27.2)	5.86 (2.4,14.3)	11.76 (6.3,21.8)	20.64 (12.4,34.2)	33.58 (19.6,57.5)	42.99 (25.2,73.4)	51.78 (28.2,95.2)	64.07 (39.7,103.3)

449  
450

DRAFT DOCUMENT

451  
452

**Table C-12. Marine fish usual fish consumption rate estimates, youth <21 years**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	6.11 (3.8,9.8)	0.90 (0.4,1.8)	2.80 (1.5,5.3)	7.39 (4.4,12.3)	15.45 (9.8,24.4)	22.53 (15.1,33.6)	29.11 (19.0,44.6)	42.49 (29.4,61.5)
<b>Gender</b>								
Female	5.35 (3.4,8.5)	0.80 (0.4,1.6)	2.51 (1.3,5.0)	6.68 (3.9,11.5)	13.87 (8.6,22.2)	19.97 (13.4,29.9)	25.70 (16.6,39.7)	37.23 (25.6,54.2)
Male	6.90 (4.2,11.4)	1.03 (0.5,2.2)	3.20 (1.6,6.3)	8.14 (5.0,13.1)	16.96 (10.9,26.4)	25.25 (16.5,38.6)	31.92 (21.0,48.6)	48.17 (31.0,74.7)
<b>Age</b>								
1 to <3 yrs	3.27 (1.8,5.8)	0.45 (0.2,0.9)	1.51 (0.7,3.4)	3.76 (2.1,6.9)	8.06 (4.7,13.8)	13.33 (6.6,26.8)	16.74 (9.1,30.8)	25.29 (14.3,44.6)
3 to <6 yrs	4.47 (2.3,8.9)	0.80 (0.3,2.4)	2.55 (0.9,7.2)	5.83 (2.8,12.1)	11.13 (5.7,21.8)	15.55 (8.5,28.6)	18.36 (11.2,30.1)	25.82 (16.4,40.7)
6 to <11 yrs	6.10 (3.0,12.3)	0.95 (0.4,2.0)	3.04 (1.5,6.3)	7.90 (3.9,16.1)	16.04 (7.2,35.9)	22.28 (10.6,46.9)	27.50 (12.9,58.5)	38.96 (18.8,80.7)
11 to <16 yrs	5.22 (3.3,8.3)	0.89 (0.4,1.9)	2.65 (1.3,5.3)	6.75 (4.0,11.4)	12.96 (8.0,21.0)	18.85 (11.6,30.7)	23.22 (14.2,38.1)	34.83 (20.5,59.3)
16 to <18 yrs	6.85 (4.4,10.7)	1.04 (0.6,1.9)	3.37 (1.8,6.1)	9.45 (5.3,17.0)	17.30 (11.5,26.0)	23.73 (16.4,34.4)	29.32 (19.9,43.2)	39.02 (25.8,59.1)
18 to <21 yrs	10.83 (5.7,20.7)	1.59 (0.8,3.1)	4.81 (2.7,8.5)	13.23 (7.4,23.6)	28.61 (14.1,58.2)	39.99 (20.7,77.4)	47.22 (25.3,88.1)	84.81 (28.2,254.7)
<b>Income</b>								
<\$20,000	5.06 (3.6,7.1)	0.81 (0.5,1.4)	2.42 (1.6,3.6)	6.13 (4.3,8.7)	12.73 (8.9,18.2)	18.69 (12.5,28.0)	24.07 (15.9,36.6)	36.10 (22.9,56.9)
>\$20,000	6.26 (3.6,10.8)	0.92 (0.4,2.0)	2.86 (1.4,5.8)	7.60 (4.2,13.8)	15.83 (9.3,27.1)	22.61 (14.9,34.3)	29.49 (18.6,46.8)	43.34 (29.3,64.2)
Income unknown	8.14 (3.0,22.1)	1.10 (0.4,3.0)	3.92 (1.1,13.8)	10.53 (2.8,39.2)	23.34 (5.8,93.8)	29.89 (12.3,72.9)	34.46 (17.9,66.3)	47.22 (24.5,91.2)
<b>Income, finer detail</b>								
<\$20,000	5.06 (3.6,7.1)	0.81 (0.5,1.4)	2.42 (1.6,3.6)	6.13 (4.3,8.7)	12.73 (8.9,18.2)	18.69 (12.5,28.0)	24.07 (15.9,36.6)	36.10 (22.9,56.9)
\$20k-\$45k	5.90 (2.8,12.6)	0.81 (0.4,1.6)	2.51 (1.2,5.1)	6.66 (3.5,12.8)	14.51 (7.3,28.8)	21.39 (11.4,40.0)	26.74 (15.2,47.1)	42.40 (21.8,82.5)
\$45k-\$75k	5.89 (3.7,9.5)	0.79 (0.4,1.5)	2.64 (1.3,5.2)	7.03 (4.1,12.0)	14.70 (9.2,23.5)	21.00 (13.3,33.1)	29.11 (17.6,48.2)	43.85 (25.0,76.9)
\$75k+	6.82 (4.0,11.7)	1.10 (0.4,3.0)	3.35 (1.5,7.6)	8.51 (4.7,15.3)	17.51 (10.0,30.8)	24.44 (16.0,37.3)	31.59 (19.8,50.4)	43.38 (29.8,63.2)
>\$20,000	5.79 (3.4,10.0)	1.28 (0.4,4.4)	3.35 (1.7,6.6)	7.75 (4.0,15.1)	14.19 (7.5,27.0)	19.99 (11.1,36.0)	23.25 (11.7,46.1)	31.07 (11.3,85.3)
Inc Ref/DK	7.17 (2.3,22.2)	1.03 (0.4,2.6)	3.59 (1.1,12.0)	9.68 (2.2,43.1)	20.08 (4.4,91.4)	26.06 (8.0,85.3)	29.32 (12.2,70.6)	38.01 (18.4,78.5)
Inc missing	9.48 (2.7,33.4)	1.15 (0.3,4.5)	4.50 (0.8,25.7)	11.88 (2.7,52.2)	27.99 (5.4,146.3)	34.11 (11.2,104.3)	46.45 (13.0,165.8)	51.05 (18.7,139.4)
<b>Race/Ethnicity</b>								
Mexican American	4.41 (3.1,6.2)	0.68 (0.4,1.1)	2.14 (1.3,3.6)	5.45 (3.7,8.1)	11.37 (7.9,16.4)	16.89 (11.6,24.6)	20.45 (14.1,29.6)	30.90 (20.6,46.3)
Other Hispanic	3.44 (1.4,8.4)	0.50 (0.2,1.3)	1.63 (0.7,3.6)	4.65 (2.4,9.0)	9.23 (4.2,20.1)	12.90 (5.1,32.6)	14.85 (4.4,50.6)	21.56 (5.5,85.2)
White	6.62 (3.2,13.9)	0.94 (0.4,2.5)	2.93 (1.1,7.6)	7.80 (3.7,16.6)	16.49 (8.4,32.3)	24.62 (13.1,46.2)	31.92 (16.5,61.9)	47.22 (26.3,84.8)
Black	4.85 (3.3,7.2)	0.97 (0.6,1.6)	2.80 (1.9,4.2)	6.37 (4.3,9.5)	11.90 (8.0,17.7)	16.09 (9.7,26.8)	20.06 (12.2,32.8)	29.33 (17.5,49.1)
Other race	10.10 (6.3,16.2)	1.89 (0.6,5.6)	5.89 (2.5,13.7)	15.18 (6.1,37.7)	25.10 (15.7,40.1)	32.35 (23.4,44.8)	36.26 (22.1,59.6)	46.27 (20.4,105.0)

453  
454

**Table C-12. Marine fish usual fish consumption rate estimates, youth <21 years (continued)**

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.15 (2.9,5.9)	0.71 (0.3,1.8)	2.06 (1.0,4.4)	5.37 (3.2,9.1)	10.46 (7.4,14.8)	14.95 (9.6,23.3)	18.48 (10.6,32.4)	26.84 (12.4,58.1)
Northeast	8.44 (3.7,19.2)	1.10 (0.6,2.0)	3.60 (2.1,6.3)	8.79 (6.0,13.0)	19.92 (10.3,38.4)	33.53 (11.8,95.3)	43.34 (13.8,136.3)	87.28 (12.2,626.4)
South	5.48 (3.6,8.4)	0.87 (0.5,1.5)	2.59 (1.6,4.3)	6.91 (4.3,11.2)	14.01 (8.9,21.9)	19.76 (13.3,29.4)	24.26 (16.6,35.5)	37.58 (24.8,57.0)
West	7.45 (3.6,15.4)	1.19 (0.4,3.5)	3.65 (1.3,10.0)	9.86 (3.8,25.5)	19.83 (8.7,45.3)	27.91 (13.6,57.3)	32.79 (18.3,58.7)	43.16 (26.5,70.2)
<b>Coastal Status</b>								
Noncoastal	6.09 (3.2,11.4)	0.89 (0.4,1.8)	2.78 (1.4,5.7)	7.32 (3.9,13.6)	14.94 (8.5,26.4)	21.68 (12.8,36.8)	28.92 (15.1,55.5)	43.38 (23.2,81.1)
Coastal	6.15 (4.4,8.5)	0.93 (0.4,2.0)	2.82 (1.6,4.9)	7.53 (5.0,11.3)	16.09 (11.3,22.8)	23.61 (16.9,32.9)	29.33 (21.2,40.6)	39.47 (23.7,65.6)
<b>Coastal/Inland Region</b>								
Pacific	6.30 (4.2,9.6)	0.74 (0.4,1.5)	2.54 (1.3,4.9)	7.70 (3.8,15.5)	18.48 (9.1,37.5)	26.74 (15.9,44.9)	32.35 (21.1,49.5)	42.43 (22.5,80.0)
Atlantic	6.18 (4.1,9.3)	1.09 (0.6,2.1)	3.34 (1.9,6.0)	8.02 (5.1,12.7)	15.51 (10.4,23.1)	22.11 (14.7,33.2)	26.38 (17.5,39.7)	36.93 (24.2,56.4)
Gulf of Mexico	7.74 (2.8,21.0)	1.15 (0.3,4.7)	3.26 (1.0,10.6)	9.75 (2.8,33.7)	20.32 (6.8,60.9)	28.10 (11.7,67.7)	35.32 (15.4,80.8)	66.18 (20.6,212.9)
Great Lakes	4.17 (1.7,10.0)	0.81 (0.3,2.3)	2.02 (1.2,3.4)	4.72 (2.1,10.4)	10.19 (3.2,32.6)	15.32 (4.1,56.7)	21.14 (6.9,65.1)	30.70 (8.9,105.9)
Inland Northeast	9.33 (3.1,27.7)	0.97 (0.6,1.6)	3.09 (1.9,5.1)	8.51 (5.6,13.0)	21.45 (8.9,51.8)	41.45 (8.4,204.6)	66.81 (6.9,647.9)	97.40 (9.6,984.9)
Inland Midwest	4.15 (2.3,7.5)	0.70 (0.2,1.9)	2.11 (0.8,5.9)	5.52 (2.5,12.3)	10.57 (6.0,18.7)	14.74 (9.3,23.5)	18.10 (11.8,27.7)	25.04 (16.9,37.0)
Inland South	4.87 (3.0,8.0)	0.78 (0.4,1.4)	2.33 (1.3,4.1)	6.30 (3.6,11.1)	12.42 (7.4,20.9)	17.62 (10.7,28.9)	21.76 (13.4,35.4)	34.09 (19.9,58.5)
Inland West	8.40 (2.8,25.5)	1.71 (0.3,8.4)	4.76 (1.1,20.4)	11.27 (3.4,37.7)	20.58 (7.3,58.3)	28.92 (10.3,81.4)	34.19 (13.1,89.4)	45.61 (20.5,101.2)

455  
456

**Table C-13. Freshwater fish usual fish consumption rate estimates, all ages**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	1.66 (1.0,2.7)	0.12 (0.0,0.6)	0.45 (0.1,1.5)	1.46 (0.7,3.1)	3.83 (2.3,6.4)	6.70 (4.2,10.7)	9.59 (6.1,15.2)	17.89 (10.5,30.4)
<b>Gender</b>								
Female	1.27 (0.7,2.2)	0.10 (0.0,0.5)	0.36 (0.1,1.1)	1.16 (0.6,2.3)	2.99 (1.8,5.1)	5.13 (2.8,9.4)	7.29 (3.8,14.2)	13.85 (6.2,30.8)
Male	2.13 (1.1,3.9)	0.18 (0.0,1.0)	0.60 (0.2,2.2)	1.92 (0.8,4.8)	4.94 (2.6,9.4)	8.50 (4.9,14.6)	12.15 (7.2,20.5)	22.16 (13.6,36.0)
<b>Age</b>								
1 to <3 yrs	0.81 (0.4,1.6)	0.04 (0.0,0.5)	0.15 (0.0,0.8)	0.54 (0.2,1.6)	1.79 (0.7,4.3)	3.47 (1.6,7.4)	5.33 (2.5,11.3)	10.68 (5.3,21.6)
3 to <6 yrs	0.79 (0.3,1.9)	0.02 (0.0,0.2)	0.16 (0.0,1.5)	0.66 (0.1,3.4)	1.74 (0.7,4.2)	3.32 (1.5,7.5)	4.87 (2.2,11.0)	9.73 (3.5,27.2)
6 to <11 yrs	0.83 (0.4,1.6)	0.07 (0.0,0.5)	0.24 (0.1,1.0)	0.76 (0.3,2.1)	2.01 (1.0,4.2)	3.46 (1.7,7.0)	4.99 (2.3,10.7)	8.61 (3.2,23.3)
11 to <16 yrs	0.97 (0.4,2.1)	0.05 (0.0,0.3)	0.21 (0.0,1.0)	0.74 (0.2,2.2)	2.31 (0.9,5.8)	4.17 (1.9,9.3)	6.08 (2.8,13.1)	12.97 (5.9,28.5)
16 to <18 yrs	0.64 (0.1,3.3)	0.03 (0.0,0.3)	0.10 (0.0,1.1)	0.38 (0.0,3.7)	1.23 (0.2,8.9)	2.72 (0.6,12.3)	4.23 (1.0,18.1)	10.17 (2.8,36.3)
18 to <21 yrs	0.78 (0.3,2.2)	0.02 (0.0,0.1)	0.08 (0.0,0.2)	0.38 (0.1,1.4)	1.39 (0.3,5.5)	2.93 (0.8,10.4)	4.83 (1.6,14.8)	11.99 (4.4,32.7)
21 to <35 yrs	1.54 (0.8,3.1)	0.17 (0.0,1.4)	0.52 (0.1,2.6)	1.45 (0.5,4.3)	3.54 (1.6,7.6)	6.03 (3.0,12.0)	8.22 (4.4,15.4)	15.38 (7.7,30.5)
35 to <50 yrs	1.77 (1.1,3.0)	0.15 (0.0,0.6)	0.47 (0.2,1.3)	1.46 (0.7,2.9)	3.93 (2.2,6.9)	7.34 (4.2,12.9)	10.46 (5.9,18.4)	19.85 (10.2,38.7)
50 to <65 yrs	2.93 (1.4,6.1)	0.35 (0.1,2.2)	1.09 (0.3,4.3)	2.99 (1.1,8.0)	6.74 (3.4,13.2)	11.00 (6.0,20.1)	14.36 (8.1,25.5)	27.06 (15.0,48.7)
65+ yrs	1.92 (1.0,3.8)	0.28 (0.0,1.6)	0.74 (0.3,2.0)	1.93 (0.9,4.0)	4.34 (1.9,10.1)	6.86 (2.6,17.9)	9.64 (3.8,24.3)	18.68 (8.2,42.7)
<b>Income</b>								
<\$20,000	1.98 (1.0,3.9)	0.15 (0.0,0.9)	0.54 (0.1,2.2)	1.78 (0.7,4.8)	4.68 (2.3,9.3)	8.07 (4.4,14.7)	11.40 (6.5,19.8)	20.23 (11.8,34.5)
>\$20,000	1.59 (1.0,2.6)	0.12 (0.0,0.6)	0.44 (0.1,1.3)	1.41 (0.7,2.9)	3.66 (2.2,6.1)	6.35 (3.9,10.4)	9.06 (5.5,15.0)	17.32 (9.7,31.0)
Income unknown	1.80 (0.6,5.1)	0.14 (0.0,1.5)	0.50 (0.1,3.2)	1.63 (0.4,7.3)	4.28 (1.3,13.9)	7.82 (2.5,24.0)	12.32 (3.5,43.5)	19.87 (8.1,48.6)
<b>Income, finer detail</b>								
<\$20,000	1.98 (1.0,3.9)	0.15 (0.0,0.9)	0.54 (0.1,2.2)	1.78 (0.7,4.8)	4.68 (2.3,9.3)	8.07 (4.4,14.7)	11.40 (6.5,19.8)	20.23 (11.8,34.5)
\$20k-\$45k	1.59 (0.7,3.6)	0.13 (0.0,0.5)	0.46 (0.2,1.1)	1.42 (0.7,3.0)	3.61 (1.5,8.6)	6.36 (2.6,15.7)	8.96 (3.4,23.4)	17.15 (5.9,49.5)
\$45k-\$75k	1.58 (0.8,3.3)	0.12 (0.0,0.9)	0.45 (0.1,2.1)	1.47 (0.5,4.4)	3.87 (1.7,8.9)	6.53 (3.3,13.1)	9.22 (4.7,18.1)	16.50 (8.3,32.9)
\$75k+	1.57 (0.8,3.0)	0.11 (0.0,0.6)	0.40 (0.1,1.4)	1.32 (0.5,3.3)	3.52 (1.8,7.0)	6.14 (3.4,11.1)	8.90 (5.1,15.7)	18.04 (10.1,32.1)
>\$20,000	1.97 (0.4,9.5)	0.17 (0.0,4.1)	0.62 (0.0,8.9)	1.89 (0.2,16.4)	4.36 (0.9,20.8)	8.10 (1.6,40.5)	11.17 (2.6,48.2)	20.16 (6.0,67.8)
Inc Ref/DK	1.62 (0.7,3.8)	0.13 (0.0,0.9)	0.47 (0.1,2.1)	1.46 (0.5,4.3)	3.85 (1.6,9.4)	7.19 (2.9,18.1)	9.70 (4.2,22.6)	17.57 (6.5,47.4)
Inc missing	2.14 (0.2,29.5)	0.16 (0.0,7.0)	0.61 (0.0,18.5)	1.96 (0.1,40.6)	4.91 (0.3,71.0)	10.19 (0.5,202.4)	15.42 (0.7,341.8)	23.53 (2.0,270.5)
<b>Race/Ethnicity</b>								
Mexican American	1.76 (0.9,3.3)	0.21 (0.0,1.4)	0.66 (0.2,2.4)	1.84 (0.9,3.9)	4.33 (2.3,8.3)	7.10 (3.5,14.4)	9.78 (4.6,20.7)	15.94 (5.4,47.5)
Other Hispanic	2.30 (0.8,6.8)	0.08 (0.0,0.3)	0.40 (0.1,1.3)	1.52 (0.6,3.9)	5.31 (1.8,15.7)	10.19 (3.1,33.2)	16.11 (4.2,61.8)	29.41 (7.3,118.0)
White	1.01 (0.6,1.8)	0.10 (0.0,0.6)	0.33 (0.1,1.2)	1.03 (0.4,2.4)	2.54 (1.4,4.7)	4.19 (2.3,7.6)	5.63 (2.9,10.9)	9.97 (4.5,21.9)
Black	2.98 (1.7,5.1)	0.35 (0.1,1.1)	1.11 (0.5,2.5)	3.05 (1.7,5.4)	7.15 (4.1,12.4)	11.63 (6.3,21.5)	15.73 (8.0,30.9)	27.24 (12.3,60.1)
Other race	5.09 (1.8,14.1)	0.27 (0.0,2.1)	1.53 (0.2,13.4)	4.80 (1.1,21.6)	12.39 (3.9,39.3)	18.90 (8.7,41.3)	28.04 (12.8,61.5)	62.27 (21.6,179.1)

459  
460

**Table C-13. Freshwater fish usual fish consumption rate estimates, all ages (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.51 (0.8,2.9)	0.11 (0.0,0.5)	0.43 (0.2,1.2)	1.38 (0.7,2.8)	3.46 (1.6,7.3)	5.79 (2.4,13.9)	8.01 (3.1,20.8)	16.65 (7.4,37.2)
Northeast	1.10 (0.4,2.7)	0.09 (0.0,0.9)	0.33 (0.1,1.9)	1.00 (0.3,3.6)	2.45 (1.0,5.8)	4.39 (2.0,9.8)	6.49 (2.8,15.0)	12.40 (5.7,27.0)
South	2.34 (1.3,4.1)	0.21 (0.0,1.1)	0.74 (0.2,2.6)	2.23 (0.9,5.2)	5.55 (3.0,10.3)	9.51 (5.4,16.6)	12.96 (7.6,22.0)	23.01 (12.5,42.3)
West	1.20 (0.6,2.5)	0.09 (0.0,0.5)	0.31 (0.1,1.0)	0.97 (0.4,2.2)	2.70 (1.3,5.5)	4.83 (2.3,9.9)	7.11 (3.3,15.2)	14.20 (5.9,34.3)
<b>Coastal Status</b>								
Noncoastal	1.59 (0.9,2.8)	0.11 (0.0,0.6)	0.43 (0.1,1.5)	1.44 (0.6,3.5)	3.79 (2.1,6.9)	6.57 (3.8,11.3)	9.26 (5.5,15.6)	16.63 (9.2,30.2)
Coastal	1.77 (1.1,2.9)	0.14 (0.0,0.7)	0.48 (0.2,1.4)	1.50 (0.8,2.9)	3.91 (2.4,6.5)	6.96 (4.2,11.5)	10.09 (6.0,17.0)	19.40 (10.2,36.9)
<b>Coastal/Inland Region</b>								
Pacific	1.34 (0.8,2.3)	0.14 (0.0,0.7)	0.44 (0.1,1.3)	1.30 (0.6,2.7)	3.18 (1.8,5.5)	5.36 (3.1,9.2)	7.27 (4.0,13.1)	13.66 (7.0,26.7)
Atlantic	1.07 (0.6,1.8)	0.12 (0.0,0.6)	0.40 (0.1,1.2)	1.11 (0.6,2.0)	2.62 (1.5,4.5)	4.09 (1.9,8.8)	5.83 (2.7,12.6)	10.29 (3.9,27.0)
Gulf of Mexico	5.13 (2.7,9.6)	0.50 (0.0,5.3)	1.73 (0.3,9.1)	4.90 (1.7,14.4)	12.16 (5.9,25.0)	19.46 (10.7,35.4)	27.06 (14.4,50.7)	58.64 (30.7,112.1)
Great Lakes	1.36 (0.6,2.9)	0.09 (0.0,0.3)	0.38 (0.1,1.1)	1.20 (0.5,2.6)	3.13 (1.4,6.8)	5.39 (2.3,12.6)	7.89 (3.4,18.2)	16.37 (6.7,39.8)
Inland Northeast	1.10 (0.3,4.3)	0.08 (0.0,0.7)	0.28 (0.0,1.7)	0.89 (0.2,3.8)	2.29 (0.7,7.8)	4.48 (1.1,18.0)	6.97 (1.5,32.5)	13.67 (3.2,59.2)
Inland Midwest	1.55 (0.7,3.2)	0.12 (0.0,0.6)	0.45 (0.1,1.5)	1.43 (0.6,3.4)	3.53 (1.5,8.3)	5.82 (2.2,15.5)	7.92 (2.7,23.7)	16.82 (7.0,40.3)
Inland South	2.16 (1.1,4.1)	0.24 (0.0,1.6)	0.82 (0.2,3.7)	2.31 (0.9,6.2)	5.45 (2.7,10.9)	8.74 (4.9,15.6)	11.92 (6.8,21.0)	18.64 (9.0,38.6)
Inland West	1.06 (0.3,3.9)	0.06 (0.0,0.3)	0.22 (0.1,0.7)	0.69 (0.3,1.8)	2.11 (0.7,6.2)	4.24 (1.2,15.4)	7.02 (1.6,30.7)	15.21 (2.8,83.5)

461  
462  
463

DRAFT DOCUMENT

464  
465

**Table C-14. Freshwater fish usual fish consumption rate estimates, adults ≥21 years**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	1.99 (1.2,3.3)	0.20 (0.0,1.1)	0.63 (0.2,2.0)	1.86 (0.9,4.0)	4.57 (2.8,7.6)	7.76 (4.9,12.3)	10.97 (6.9,17.3)	19.93 (11.4,34.7)
<b>Gender</b>								
Female	1.53 (0.9,2.6)	0.16 (0.0,0.8)	0.50 (0.2,1.4)	1.46 (0.8,2.7)	3.58 (2.1,6.1)	6.02 (3.3,11.1)	8.09 (3.8,17.3)	15.08 (6.1,37.1)
Male	2.59 (1.3,5.1)	0.28 (0.0,1.8)	0.83 (0.2,3.2)	2.45 (0.9,6.5)	5.96 (3.0,11.7)	10.19 (5.5,18.8)	13.90 (8.1,23.9)	25.12 (15.1,41.7)
<b>Age</b>								
21 to <35 yrs	1.54 (0.8,3.1)	0.17 (0.0,1.4)	0.52 (0.1,2.6)	1.45 (0.5,4.3)	3.54 (1.6,7.6)	6.03 (3.0,12.0)	8.22 (4.4,15.4)	15.38 (7.7,30.5)
35 to <50 yrs	1.77 (1.1,3.0)	0.15 (0.0,0.6)	0.47 (0.2,1.3)	1.46 (0.7,2.9)	3.93 (2.2,6.9)	7.34 (4.2,12.9)	10.46 (5.9,18.4)	19.85 (10.2,38.7)
50 to <65 yrs	2.93 (1.4,6.1)	0.35 (0.1,2.2)	1.09 (0.3,4.3)	2.99 (1.1,8.0)	6.74 (3.4,13.2)	11.00 (6.0,20.1)	14.36 (8.1,25.5)	27.06 (15.0,48.7)
65+ yrs	1.92 (1.0,3.8)	0.28 (0.0,1.6)	0.74 (0.3,2.0)	1.93 (0.9,4.0)	4.34 (1.9,10.1)	6.86 (2.6,17.9)	9.64 (3.8,24.3)	18.68 (8.2,42.7)
<b>WCA (13-49 years)</b>	1.13 (0.6,2.1)	0.08 (0.0,0.4)	0.30 (0.1,0.9)	0.97 (0.5,1.9)	2.57 (1.4,4.6)	4.53 (2.3,8.9)	6.77 (3.4,13.3)	12.64 (4.9,32.8)
<b>Income</b>								
<\$20,000	2.37 (1.2,4.8)	0.24 (0.0,1.6)	0.74 (0.2,2.9)	2.20 (0.9,5.6)	5.49 (2.8,10.7)	9.37 (5.1,17.3)	12.63 (7.3,21.7)	22.54 (12.6,40.3)
>\$20,000	1.92 (1.2,3.1)	0.20 (0.0,1.0)	0.61 (0.2,1.9)	1.79 (0.9,3.7)	4.41 (2.7,7.3)	7.40 (4.5,12.1)	10.42 (6.3,17.2)	19.28 (10.4,35.8)
Income unknown	2.12 (0.7,6.4)	0.22 (0.0,2.7)	0.66 (0.1,3.9)	1.94 (0.5,7.8)	4.99 (1.6,15.5)	9.15 (2.9,29.3)	15.21 (3.4,68.7)	22.38 (8.3,60.2)
<b>Income, finer detail</b>								
<\$20,000	2.37 (1.2,4.8)	0.24 (0.0,1.6)	0.74 (0.2,2.9)	2.20 (0.9,5.6)	5.49 (2.8,10.7)	9.37 (5.1,17.3)	12.63 (7.3,21.7)	22.54 (12.6,40.3)
\$20k-\$45k	1.87 (0.8,4.1)	0.21 (0.1,0.7)	0.61 (0.3,1.4)	1.71 (0.8,3.7)	4.21 (1.7,10.4)	7.21 (2.8,18.6)	10.15 (3.8,27.1)	18.53 (5.9,58.0)
\$45k-\$75k	1.91 (0.9,4.1)	0.20 (0.0,1.7)	0.65 (0.1,3.3)	1.92 (0.6,6.4)	4.62 (2.0,10.7)	7.38 (3.8,14.4)	10.37 (5.2,20.5)	17.84 (8.5,37.4)
\$75k+	1.94 (1.0,3.9)	0.18 (0.0,1.0)	0.57 (0.2,2.0)	1.71 (0.7,4.4)	4.27 (2.1,8.6)	7.38 (4.0,13.5)	10.59 (5.9,19.1)	19.93 (10.9,36.4)
>\$20,000	2.34 (0.5,11.2)	0.26 (0.0,6.0)	0.79 (0.1,9.6)	2.19 (0.3,15.3)	5.33 (1.0,27.4)	9.33 (1.9,45.0)	14.03 (2.7,74.2)	20.58 (6.9,61.4)
Inc Ref/DK	1.85 (0.7,4.6)	0.20 (0.0,1.5)	0.57 (0.1,2.3)	1.76 (0.6,5.3)	4.45 (1.8,11.0)	7.72 (3.0,19.8)	10.98 (4.6,26.2)	17.57 (6.0,51.3)
Inc missing	2.71 (0.2,40.2)	0.30 (0.0,18.0)	0.84 (0.0,23.5)	2.50 (0.1,50.6)	6.07 (0.4,90.0)	14.58 (0.4,478.3)	19.47 (0.7,522.9)	28.82 (2.1,395.7)
<b>Race/Ethnicity</b>								
Mexican American	2.18 (1.0,4.6)	0.34 (0.1,1.7)	0.95 (0.3,2.8)	2.40 (1.2,4.9)	5.31 (2.5,11.3)	8.64 (3.9,19.3)	11.74 (5.0,27.5)	17.57 (4.6,66.8)
Other Hispanic	2.95 (1.0,8.9)	0.17 (0.0,0.7)	0.60 (0.2,1.9)	2.07 (0.8,5.2)	7.05 (2.2,22.8)	12.37 (3.8,40.5)	19.03 (4.9,73.4)	39.93 (7.0,228.1)
White	1.22 (0.7,2.2)	0.16 (0.0,0.9)	0.46 (0.1,1.6)	1.28 (0.6,2.9)	3.01 (1.7,5.5)	4.81 (2.7,8.7)	6.42 (3.3,12.4)	11.01 (5.0,24.5)
Black	3.51 (2.1,5.9)	0.54 (0.2,1.8)	1.46 (0.7,3.1)	3.74 (2.2,6.5)	8.12 (4.5,14.7)	12.96 (6.6,25.4)	17.24 (8.2,36.4)	30.54 (14.2,65.4)
Other race	6.90 (2.3,20.8)	0.97 (0.1,15.2)	2.77 (0.3,23.4)	7.04 (1.6,31.5)	15.33 (5.5,43.0)	26.03 (9.8,69.0)	36.96 (14.9,91.7)	80.81 (22.4,292.0)

466  
467

**Table C-14. Freshwater fish usual fish consumption rate estimates, adults ≥21 years (continued)**

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.80 (0.9,3.4)	0.19 (0.0,0.7)	0.60 (0.2,1.5)	1.74 (0.9,3.4)	4.12 (1.9,8.8)	6.56 (2.5,17.0)	8.74 (2.9,26.1)	18.25 (7.8,42.6)
Northeast	1.30 (0.5,3.4)	0.15 (0.0,1.6)	0.45 (0.1,2.7)	1.19 (0.4,4.0)	2.83 (1.2,6.7)	5.04 (2.1,11.8)	7.29 (3.1,17.4)	13.79 (6.0,31.8)
South	2.83 (1.6,5.0)	0.34 (0.1,1.8)	1.04 (0.3,3.6)	2.82 (1.2,6.5)	6.65 (3.6,12.2)	11.03 (6.4,18.9)	14.62 (8.6,24.8)	26.24 (14.3,48.1)
West	1.45 (0.6,3.4)	0.14 (0.0,0.8)	0.42 (0.1,1.5)	1.24 (0.5,3.2)	3.19 (1.4,7.1)	5.72 (2.5,13.1)	8.24 (3.5,19.6)	15.57 (5.9,41.2)
<b>Coastal Status</b>								
Noncoastal	1.92 (1.1,3.4)	0.20 (0.0,1.2)	0.64 (0.2,2.3)	1.87 (0.8,4.4)	4.54 (2.5,8.2)	7.55 (4.5,12.8)	10.48 (6.1,17.8)	18.35 (9.7,34.7)
Coastal	2.11 (1.3,3.5)	0.20 (0.0,1.0)	0.62 (0.2,1.8)	1.85 (0.9,3.7)	4.63 (2.8,7.8)	8.16 (4.9,13.6)	11.98 (7.2,20.0)	22.66 (12.4,41.4)
<b>Coastal/Inland Region</b>								
Pacific	1.50 (0.8,2.8)	0.18 (0.0,1.0)	0.53 (0.2,1.8)	1.48 (0.6,3.4)	3.56 (1.9,6.7)	5.73 (3.2,10.2)	7.91 (4.4,14.3)	14.83 (7.6,29.0)
Atlantic	1.14 (0.6,2.1)	0.15 (0.0,0.7)	0.45 (0.2,1.2)	1.21 (0.7,2.1)	2.76 (1.4,5.3)	4.27 (1.7,10.5)	6.10 (2.6,14.2)	10.38 (3.4,31.9)
Gulf of Mexico	6.70 (3.6,12.3)	1.08 (0.1,10.7)	2.67 (0.6,11.7)	6.82 (2.5,18.5)	15.00 (8.1,27.8)	23.48 (12.8,43.0)	35.67 (19.7,64.5)	74.26 (34.8,158.6)
Great Lakes	1.82 (0.9,3.5)	0.23 (0.0,1.4)	0.62 (0.2,2.0)	1.74 (0.8,3.8)	4.14 (2.1,8.1)	7.32 (3.7,14.4)	9.71 (4.6,20.5)	20.60 (8.5,50.1)
Inland Northeast	1.39 (0.3,6.7)	0.15 (0.0,2.2)	0.44 (0.1,3.5)	1.15 (0.2,5.3)	2.87 (0.7,11.5)	5.52 (1.1,26.7)	8.06 (1.6,40.8)	15.13 (3.3,69.7)
Inland Midwest	1.78 (0.8,3.9)	0.18 (0.0,0.8)	0.60 (0.2,1.7)	1.73 (0.8,4.0)	4.08 (1.6,10.2)	6.40 (2.1,19.6)	8.59 (2.5,29.7)	17.85 (6.8,46.6)
Inland South	2.61 (1.4,5.0)	0.41 (0.1,2.9)	1.18 (0.3,5.0)	2.98 (1.1,7.9)	6.40 (3.3,12.3)	10.33 (5.7,18.7)	13.00 (7.3,23.3)	20.16 (8.9,45.6)
Inland West	1.38 (0.3,5.7)	0.11 (0.0,0.7)	0.33 (0.1,1.1)	0.98 (0.3,2.9)	2.82 (0.8,9.9)	5.67 (1.2,25.9)	8.71 (1.7,45.3)	16.37 (3.0,88.8)

468  
469

470  
471

Table C-15. Freshwater fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	0.82 (0.5,1.5)	0.04 (0.0,0.2)	0.16 (0.1,0.5)	0.62 (0.3,1.4)	1.85 (1.0,3.5)	3.41 (1.9,6.2)	5.16 (2.9,9.2)	10.68 (5.6,20.2)
<b>Gender</b>								
Female	0.55 (0.3,1.1)	0.02 (0.0,0.1)	0.10 (0.0,0.3)	0.39 (0.2,0.9)	1.23 (0.6,2.4)	2.30 (1.1,4.7)	3.35 (1.5,7.4)	7.77 (3.7,16.3)
Male	1.10 (0.6,2.0)	0.07 (0.0,0.4)	0.26 (0.1,0.8)	0.88 (0.4,2.0)	2.57 (1.3,4.9)	4.64 (2.6,8.4)	6.67 (3.7,12.1)	13.23 (7.0,24.9)
<b>Age</b>								
1 to <3 yrs	0.81 (0.4,1.6)	0.04 (0.0,0.5)	0.15 (0.0,0.8)	0.54 (0.2,1.6)	1.79 (0.7,4.3)	3.47 (1.6,7.4)	5.33 (2.5,11.3)	10.68 (5.3,21.6)
3 to <6 yrs	0.79 (0.3,1.9)	0.02 (0.0,0.2)	0.16 (0.0,1.5)	0.66 (0.1,3.4)	1.74 (0.7,4.2)	3.32 (1.5,7.5)	4.87 (2.2,11.0)	9.73 (3.5,27.2)
6 to <11 yrs	0.83 (0.4,1.6)	0.07 (0.0,0.5)	0.24 (0.1,1.0)	0.76 (0.3,2.1)	2.01 (1.0,4.2)	3.46 (1.7,7.0)	4.99 (2.3,10.7)	8.61 (3.2,23.3)
11 to <16 yrs	0.97 (0.4,2.1)	0.05 (0.0,0.3)	0.21 (0.0,1.0)	0.74 (0.2,2.2)	2.31 (0.9,5.8)	4.17 (1.9,9.3)	6.08 (2.8,13.1)	12.97 (5.9,28.5)
16 to <18 yrs	0.64 (0.1,3.3)	0.03 (0.0,0.3)	0.10 (0.0,1.1)	0.38 (0.0,3.7)	1.23 (0.2,8.9)	2.72 (0.6,12.3)	4.23 (1.0,18.1)	10.17 (2.8,36.3)
18 to <21 yrs	0.78 (0.3,2.2)	0.02 (0.0,0.1)	0.08 (0.0,0.2)	0.38 (0.1,1.4)	1.39 (0.3,5.5)	2.93 (0.8,10.4)	4.83 (1.6,14.8)	11.99 (4.4,32.7)
<b>Income</b>								
<\$20,000	1.19 (0.6,2.3)	0.06 (0.0,0.4)	0.24 (0.1,0.9)	0.90 (0.3,2.5)	2.75 (1.3,5.9)	5.23 (2.6,10.6)	7.86 (3.9,15.7)	14.19 (7.3,27.5)
>\$20,000	0.73 (0.4,1.4)	0.03 (0.0,0.2)	0.15 (0.0,0.5)	0.55 (0.2,1.3)	1.62 (0.8,3.3)	3.01 (1.5,6.1)	4.48 (2.2,9.3)	9.20 (4.1,20.7)
Income unknown	1.08 (0.3,3.5)	0.03 (0.0,0.2)	0.20 (0.0,1.2)	0.75 (0.2,3.1)	2.64 (0.6,12.2)	4.69 (1.2,18.4)	7.81 (1.7,36.9)	12.87 (3.4,48.3)
<b>Income, finer detail</b>								
<\$20,000	1.19 (0.6,2.3)	0.06 (0.0,0.4)	0.24 (0.1,0.9)	0.90 (0.3,2.5)	2.75 (1.3,5.9)	5.23 (2.6,10.6)	7.86 (3.9,15.7)	14.19 (7.3,27.5)
\$20k-\$45k	0.86 (0.4,2.1)	0.04 (0.0,0.2)	0.18 (0.1,0.5)	0.66 (0.3,1.5)	1.95 (0.8,4.5)	3.46 (1.3,9.0)	5.07 (1.9,13.8)	11.43 (4.8,27.0)
\$45k-\$75k	0.64 (0.3,1.3)	0.03 (0.0,0.2)	0.13 (0.0,0.5)	0.46 (0.2,1.1)	1.34 (0.6,2.9)	2.67 (1.3,5.5)	4.21 (2.0,8.7)	8.50 (3.8,19.1)
\$75k+	0.66 (0.3,1.4)	0.03 (0.0,0.2)	0.14 (0.0,0.5)	0.49 (0.2,1.3)	1.53 (0.7,3.5)	2.76 (1.3,6.1)	4.15 (1.9,9.0)	7.49 (2.6,21.5)
>\$20,000	0.78 (0.2,2.9)	0.04 (0.0,0.3)	0.18 (0.0,1.5)	0.62 (0.1,3.0)	2.01 (0.4,9.4)	3.37 (0.9,12.8)	4.54 (1.3,16.0)	9.33 (2.1,42.0)
Inc Ref/DK	1.01 (0.3,3.1)	0.04 (0.0,0.2)	0.17 (0.0,0.7)	0.65 (0.2,2.0)	1.94 (0.8,4.9)	3.89 (1.5,10.4)	6.46 (2.1,19.8)	19.01 (3.7,97.2)
Inc missing	1.17 (0.1,17.2)	0.03 (0.0,0.4)	0.26 (0.0,8.2)	1.15 (0.0,31.4)	2.79 (0.2,46.0)	5.28 (0.3,82.7)	7.85 (0.4,139.4)	11.06 (1.1,114.8)
<b>Race/Ethnicity</b>								
Mexican American	1.12 (0.5,2.4)	0.11 (0.0,1.1)	0.34 (0.1,1.8)	1.05 (0.3,3.4)	2.70 (1.2,6.2)	4.73 (2.2,10.0)	6.48 (3.3,12.8)	11.51 (5.8,22.8)
Other Hispanic	1.12 (0.2,5.1)	0.02 (0.0,0.1)	0.11 (0.0,0.5)	0.65 (0.2,2.6)	2.54 (0.6,9.9)	5.59 (1.2,26.0)	7.86 (1.5,40.4)	18.85 (2.6,135.1)
White	0.40 (0.2,1.0)	0.02 (0.0,0.1)	0.10 (0.0,0.3)	0.34 (0.1,0.9)	1.00 (0.4,2.4)	1.78 (0.7,4.5)	2.55 (1.0,6.6)	4.60 (1.4,15.0)
Black	1.91 (0.9,4.0)	0.17 (0.0,0.6)	0.55 (0.2,1.4)	1.64 (0.8,3.6)	4.36 (2.0,9.3)	8.14 (3.8,17.2)	11.83 (5.6,25.2)	22.67 (10.4,49.4)
Other race	1.20 (0.4,3.3)	0.04 (0.0,0.4)	0.17 (0.0,0.8)	0.79 (0.2,2.7)	3.05 (1.0,9.7)	5.83 (2.0,17.2)	8.40 (2.8,25.6)	16.43 (4.8,55.7)

472  
473

**Table C-15. Freshwater fish usual fish consumption rate estimates, youth <21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.80 (0.3,2.1)	0.03 (0.0,0.2)	0.14 (0.0,0.6)	0.56 (0.2,1.9)	1.73 (0.6,4.9)	3.16 (1.2,8.6)	4.66 (1.7,13.0)	9.83 (3.2,30.1)
Northeast	0.59 (0.2,1.4)	0.02 (0.0,0.1)	0.11 (0.0,0.6)	0.44 (0.1,1.8)	1.35 (0.5,3.9)	2.52 (1.0,6.3)	3.87 (1.5,9.9)	7.69 (3.2,18.4)
South	1.08 (0.5,2.2)	0.07 (0.0,0.4)	0.26 (0.1,1.1)	0.89 (0.3,2.5)	2.52 (1.2,5.5)	4.62 (2.2,9.6)	6.80 (3.2,14.5)	13.25 (6.3,28.0)
West	0.64 (0.2,1.8)	0.03 (0.0,0.2)	0.13 (0.0,0.4)	0.45 (0.2,1.2)	1.43 (0.6,3.5)	2.71 (1.1,6.7)	4.23 (1.7,10.2)	8.99 (3.2,25.3)
<b>Coastal Status</b>								
Noncoastal	0.76 (0.4,1.5)	0.03 (0.0,0.1)	0.13 (0.0,0.4)	0.49 (0.2,1.3)	1.60 (0.7,3.6)	3.06 (1.5,6.4)	4.77 (2.4,9.6)	10.87 (5.6,21.1)
Coastal	0.92 (0.5,1.8)	0.06 (0.0,0.3)	0.23 (0.1,0.7)	0.79 (0.4,1.7)	2.22 (1.2,4.1)	3.97 (2.0,7.7)	5.77 (2.7,12.2)	10.60 (3.8,29.5)
<b>Coastal/Inland Region</b>								
Pacific	0.91 (0.3,2.4)	0.07 (0.0,0.3)	0.25 (0.1,0.8)	0.82 (0.3,2.0)	2.32 (1.1,5.1)	4.14 (1.8,9.5)	5.81 (2.2,15.2)	9.94 (2.6,38.6)
Atlantic	0.87 (0.4,2.0)	0.06 (0.0,0.5)	0.24 (0.0,1.7)	0.83 (0.2,3.5)	2.04 (0.8,5.1)	3.63 (1.6,8.5)	5.12 (2.2,12.0)	9.60 (4.1,22.6)
Gulf of Mexico	1.67 (0.5,5.5)	0.10 (0.0,1.3)	0.40 (0.1,2.9)	1.46 (0.3,6.8)	3.95 (1.0,14.9)	7.34 (2.1,26.1)	10.22 (3.1,33.4)	21.89 (7.4,65.1)
Great Lakes	0.35 (0.0,6.9)	0.02 (0.0,0.1)	0.09 (0.0,0.6)	0.30 (0.0,3.1)	0.83 (0.0,14.1)	1.51 (0.1,31.6)	2.36 (0.1,44.7)	4.34 (0.2,117.5)
Inland Northeast	0.34 (0.1,1.4)	0.02 (0.0,0.1)	0.06 (0.0,0.3)	0.20 (0.0,0.9)	0.63 (0.1,3.0)	1.25 (0.3,5.9)	1.93 (0.4,9.5)	5.99 (1.5,24.2)
Inland Midwest	0.93 (0.4,2.5)	0.03 (0.0,0.3)	0.16 (0.0,1.0)	0.68 (0.1,3.1)	2.04 (0.6,6.6)	3.52 (1.3,9.5)	5.23 (2.1,13.3)	11.49 (4.5,29.5)
Inland South	1.01 (0.4,2.5)	0.06 (0.0,0.4)	0.24 (0.1,1.1)	0.83 (0.3,2.6)	2.38 (0.9,6.2)	4.39 (1.8,10.9)	6.52 (2.6,16.3)	12.88 (5.3,31.5)
Inland West	0.42 (0.1,2.0)	0.02 (0.0,0.1)	0.07 (0.0,0.3)	0.26 (0.1,0.9)	0.72 (0.2,3.3)	1.29 (0.2,8.0)	2.09 (0.4,12.2)	6.05 (1.1,32.5)

474  
475

DRAFT DOCUMENT

476  
477

Table C-16. Estuarine fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	5.18 (4.1,6.6)	0.73 (0.4,1.3)	2.44 (1.4,4.1)	6.35 (4.5,9.0)	13.16 (10.5,16.6)	19.32 (14.8,25.1)	24.45 (17.9,33.4)	37.02 (24.5,56.0)
<b>Gender</b>								
Female	4.44 (3.4,5.8)	0.67 (0.4,1.2)	2.17 (1.2,3.8)	5.54 (3.8,8.0)	11.21 (8.7,14.4)	16.28 (12.4,21.4)	20.66 (14.9,28.7)	31.17 (19.7,49.2)
Male	6.06 (4.8,7.7)	0.81 (0.5,1.3)	2.83 (1.7,4.7)	7.45 (5.2,10.7)	15.46 (12.1,19.8)	22.62 (17.1,29.9)	28.35 (20.7,38.9)	44.50 (26.5,74.8)
<b>Age</b>								
1 to <3 yrs	1.39 (0.6,3.1)	0.13 (0.1,0.3)	0.41 (0.2,0.8)	1.26 (0.7,2.1)	3.09 (1.7,5.7)	5.40 (2.5,11.9)	8.35 (2.7,25.5)	16.46 (3.6,74.5)
3 to <6 yrs	1.55 (1.0,2.5)	0.18 (0.1,0.4)	0.59 (0.3,1.1)	1.73 (1.0,3.1)	3.94 (2.3,6.7)	6.37 (4.0,10.1)	8.80 (5.5,14.2)	13.35 (8.1,21.9)
6 to <11 yrs	2.05 (1.3,3.2)	0.19 (0.1,0.5)	0.64 (0.3,1.4)	2.02 (1.0,4.0)	5.12 (3.1,8.4)	8.54 (5.4,13.6)	11.65 (7.3,18.5)	20.96 (10.9,40.4)
11 to <16 yrs	2.52 (1.4,4.5)	0.28 (0.1,0.7)	0.91 (0.4,2.0)	2.79 (1.4,5.4)	6.38 (3.4,12.1)	10.49 (6.3,17.5)	13.48 (7.6,23.9)	21.42 (11.5,39.9)
16 to <18 yrs	2.59 (1.5,4.4)	0.24 (0.1,0.8)	0.76 (0.2,2.5)	2.39 (0.9,6.5)	6.22 (3.0,13.1)	11.09 (6.9,17.8)	15.43 (9.9,24.0)	30.44 (13.5,68.8)
18 to <21 yrs	4.66 (2.7,8.1)	0.62 (0.3,1.3)	1.98 (1.1,3.5)	5.58 (3.3,9.4)	12.43 (6.5,23.6)	17.81 (10.0,31.8)	22.26 (12.4,40.0)	36.21 (17.2,76.2)
21 to <35 yrs	6.60 (5.0,8.7)	1.17 (0.7,1.9)	3.39 (2.4,4.8)	7.92 (6.2,10.1)	15.85 (11.9,21.0)	23.32 (16.3,33.3)	29.72 (19.8,44.5)	48.45 (25.3,93.0)
35 to <50 yrs	6.51 (4.8,8.9)	1.45 (0.8,2.6)	3.62 (2.1,6.3)	8.12 (5.4,12.2)	15.71 (11.4,21.6)	22.11 (15.7,31.2)	27.59 (19.0,40.0)	40.45 (25.7,63.7)
50 to <65 yrs	6.51 (4.8,8.9)	1.57 (0.6,3.9)	3.96 (2.1,7.4)	8.54 (6.0,12.2)	15.51 (11.9,20.2)	21.31 (15.9,28.6)	25.97 (18.5,36.4)	36.35 (24.2,54.7)
65+ yrs	4.77 (3.3,6.9)	0.91 (0.4,2.3)	2.41 (1.1,5.4)	5.81 (3.4,10.1)	11.94 (8.6,16.5)	17.48 (12.7,24.1)	21.78 (15.1,31.5)	33.63 (18.1,62.7)
<b>Income</b>								
<\$20,000	4.66 (3.7,5.9)	0.59 (0.3,1.0)	2.05 (1.2,3.4)	5.59 (4.0,7.9)	11.65 (8.9,15.2)	16.65 (12.3,22.6)	21.59 (16.2,28.8)	35.25 (23.7,52.5)
>\$20,000	5.20 (4.0,6.7)	0.76 (0.4,1.3)	2.47 (1.4,4.4)	6.38 (4.3,9.4)	13.22 (10.4,16.9)	19.47 (14.7,25.8)	24.55 (17.7,34.0)	36.92 (24.1,56.6)
Income unknown	7.13 (4.2,12.0)	1.02 (0.5,1.9)	3.83 (1.9,7.7)	9.72 (5.1,18.6)	18.37 (10.7,31.5)	25.19 (15.3,41.5)	31.91 (17.9,57.0)	42.98 (24.0,77.0)
<b>Income, finer detail</b>								
<\$20,000	4.66 (3.7,5.9)	0.59 (0.3,1.0)	2.05 (1.2,3.4)	5.59 (4.0,7.9)	11.65 (8.9,15.2)	16.65 (12.3,22.6)	21.59 (16.2,28.8)	35.25 (23.7,52.5)
\$20k-\$45k	4.52 (3.5,5.8)	0.62 (0.3,1.2)	2.10 (1.3,3.5)	5.49 (3.9,7.7)	11.52 (8.9,14.9)	17.03 (12.4,23.3)	21.58 (15.1,30.9)	33.75 (21.0,54.3)
\$45k-\$75k	4.66 (3.4,6.3)	0.64 (0.3,1.3)	2.19 (1.2,4.0)	5.73 (3.8,8.7)	11.89 (8.9,15.9)	17.72 (12.8,24.6)	22.11 (15.5,31.5)	33.10 (21.0,52.3)
\$75k+	6.09 (4.5,8.2)	0.98 (0.5,1.8)	3.05 (1.5,6.0)	7.54 (4.7,12.2)	15.35 (11.6,20.3)	22.20 (16.7,29.5)	28.20 (20.0,39.7)	42.45 (25.8,69.9)
>\$20,000	5.77 (3.1,10.8)	1.03 (0.5,2.1)	3.10 (1.7,5.7)	7.56 (4.2,13.5)	14.88 (6.8,32.6)	20.22 (9.2,44.2)	24.68 (10.7,56.8)	33.99 (14.3,80.6)
Inc Ref/DK	6.44 (4.0,10.3)	0.95 (0.5,1.8)	3.56 (2.0,6.3)	8.34 (5.3,13.1)	16.87 (9.7,29.3)	23.67 (13.2,42.4)	27.08 (16.0,45.9)	41.18 (20.1,84.5)
Inc missing	8.45 (2.7,26.4)	1.16 (0.3,4.5)	4.34 (1.1,17.3)	11.46 (3.2,41.5)	21.36 (7.3,62.3)	31.91 (9.6,106.0)	38.06 (12.5,116.0)	48.18 (18.8,123.7)
<b>Race/Ethnicity</b>								
Mexican American	5.73 (4.0,8.2)	0.77 (0.4,1.3)	2.69 (1.6,4.5)	7.32 (4.9,10.9)	14.79 (10.5,20.9)	21.06 (14.6,30.4)	26.10 (17.6,38.7)	39.91 (26.3,60.5)
Other Hispanic	5.97 (4.2,8.5)	0.63 (0.3,1.2)	2.51 (1.3,4.7)	6.97 (4.0,12.3)	15.57 (10.7,22.6)	23.35 (15.1,36.1)	29.69 (18.2,48.5)	43.15 (23.9,78.0)
White	4.39 (3.2,6.0)	0.64 (0.4,1.1)	2.11 (1.2,3.9)	5.42 (3.5,8.4)	11.15 (8.3,15.0)	16.33 (12.3,21.6)	20.72 (15.3,28.1)	30.77 (20.8,45.6)
Black	5.40 (3.7,7.8)	1.00 (0.5,2.0)	3.08 (1.7,5.6)	7.15 (4.7,10.8)	13.27 (9.5,18.6)	18.31 (12.9,26.0)	22.43 (15.6,32.2)	33.24 (21.9,50.5)
Other race	11.53 (6.2,21.4)	2.08 (1.1,4.0)	6.36 (3.9,10.3)	14.94 (8.4,26.5)	28.11 (14.4,55.0)	39.90 (19.0,83.8)	52.33 (20.5,133.5)	73.44 (29.0,185.8)

478  
479

**Table C-16. Estuarine fish usual fish consumption rate estimates, all ages (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.80 (1.7,4.5)	0.42 (0.2,0.8)	1.33 (0.7,2.5)	3.26 (1.8,5.9)	6.59 (3.8,11.4)	10.08 (6.3,16.2)	13.20 (8.4,20.8)	22.01 (13.3,36.5)
Northeast	6.43 (5.2,8.0)	0.91 (0.4,1.8)	3.40 (1.8,6.3)	8.72 (6.7,11.3)	16.25 (13.1,20.2)	23.10 (17.1,31.2)	27.73 (20.1,38.2)	39.07 (25.7,59.5)
South	5.95 (4.3,8.1)	0.96 (0.5,1.7)	3.05 (1.8,5.1)	7.43 (5.2,10.7)	14.61 (10.6,20.1)	21.16 (14.9,30.1)	26.47 (18.1,38.6)	42.33 (23.0,77.8)
West	5.71 (4.1,7.9)	0.86 (0.4,1.7)	2.89 (1.6,5.1)	7.09 (4.7,10.6)	14.20 (10.2,19.8)	20.70 (14.0,30.6)	25.95 (16.5,40.8)	39.14 (21.8,70.1)
<b>Coastal Status</b>								
Noncoastal	4.16 (3.2,5.4)	0.58 (0.3,1.1)	1.93 (1.1,3.4)	4.99 (3.3,7.6)	10.49 (8.0,13.8)	15.59 (11.6,21.0)	20.19 (14.1,29.0)	31.44 (18.7,52.9)
Coastal	6.77 (5.0,9.2)	1.11 (0.6,2.2)	3.55 (1.9,6.7)	8.67 (5.8,13.0)	16.76 (12.6,22.3)	23.86 (17.7,32.2)	29.47 (21.3,40.7)	46.68 (27.3,79.9)
<b>Coastal/Inland Region</b>								
Pacific	6.27 (3.9,10.1)	0.97 (0.5,2.0)	3.24 (1.6,6.7)	7.92 (4.7,13.4)	15.79 (9.8,25.4)	22.03 (13.0,37.3)	28.59 (15.6,52.5)	42.53 (20.8,86.8)
Atlantic	6.65 (3.9,11.4)	1.31 (0.4,4.1)	3.98 (1.6,10.0)	8.86 (4.6,16.9)	16.22 (10.5,25.2)	22.05 (14.7,33.1)	26.04 (17.0,39.8)	38.26 (24.8,59.0)
Gulf of Mexico	10.46 (5.8,19.0)	1.93 (0.5,6.8)	6.03 (2.4,15.0)	13.84 (7.3,26.2)	25.08 (15.0,42.0)	34.75 (20.8,58.0)	47.02 (23.2,95.3)	66.74 (31.9,139.5)
Great Lakes	4.58 (3.1,6.9)	0.60 (0.3,1.3)	1.96 (0.8,4.7)	5.12 (2.8,9.3)	10.79 (7.0,16.6)	17.52 (11.3,27.2)	23.39 (13.9,39.2)	38.79 (19.4,77.4)
Inland Northeast	6.11 (4.5,8.2)	0.67 (0.2,1.9)	2.78 (1.2,6.4)	8.17 (5.9,11.4)	16.07 (10.7,24.1)	23.56 (13.4,41.4)	28.49 (15.8,51.3)	39.78 (21.7,72.9)
Inland Midwest	2.31 (1.5,3.5)	0.39 (0.2,0.7)	1.22 (0.7,2.1)	2.91 (1.9,4.5)	5.62 (3.6,8.8)	8.24 (5.4,12.6)	10.49 (6.6,16.7)	15.99 (9.5,26.9)
Inland South	4.51 (3.4,5.9)	0.74 (0.5,1.2)	2.38 (1.6,3.6)	5.68 (4.3,7.6)	10.91 (8.2,14.5)	15.79 (11.1,22.4)	19.91 (12.9,30.6)	29.95 (17.2,52.3)
Inland West	5.15 (3.6,7.5)	0.80 (0.4,1.7)	2.52 (1.3,4.9)	6.26 (3.9,10.1)	12.82 (8.9,18.5)	18.71 (12.2,28.6)	24.19 (14.2,41.1)	36.99 (18.4,74.5)

480  
481

482  
483

**Table C-17. Estuarine fish usual fish consumption rate estimates, adults ≥21 years**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	6.27 (5.0,7.9)	1.29 (0.7,2.4)	3.42 (2.0,5.7)	7.80 (5.6,10.8)	15.05 (11.9,19.0)	21.63 (16.3,28.7)	26.92 (19.4,37.4)	40.69 (25.5,64.9)
<b>Gender</b>								
Female	5.17 (4.0,6.7)	1.09 (0.6,2.0)	2.87 (1.7,4.9)	6.58 (4.8,9.1)	12.55 (9.8,16.0)	17.82 (13.3,23.9)	22.16 (15.7,31.4)	32.48 (20.5,51.5)
Male	7.67 (6.0,9.9)	1.65 (0.9,3.2)	4.29 (2.5,7.3)	9.65 (7.0,13.3)	18.26 (14.1,23.6)	25.80 (19.1,34.9)	32.46 (22.4,46.9)	50.19 (27.4,91.8)
<b>Age</b>								
21 to <35 yrs	6.60 (5.0,8.7)	1.17 (0.7,1.9)	3.39 (2.4,4.8)	7.92 (6.2,10.1)	15.85 (11.9,21.0)	23.32 (16.3,33.3)	29.72 (19.8,44.5)	48.45 (25.3,93.0)
35 to <50 yrs	6.51 (4.8,8.9)	1.45 (0.8,2.6)	3.62 (2.1,6.3)	8.12 (5.4,12.2)	15.71 (11.4,21.6)	22.11 (15.7,31.2)	27.59 (19.0,40.0)	40.45 (25.7,63.7)
50 to <65 yrs	6.51 (4.8,8.9)	1.57 (0.6,3.9)	3.96 (2.1,7.4)	8.54 (6.0,12.2)	15.51 (11.9,20.2)	21.31 (15.9,28.6)	25.97 (18.5,36.4)	36.35 (24.2,54.7)
65+ yrs	4.77 (3.3,6.9)	0.91 (0.4,2.3)	2.41 (1.1,5.4)	5.81 (3.4,10.1)	11.94 (8.6,16.5)	17.48 (12.7,24.1)	21.78 (15.1,31.5)	33.63 (18.1,62.7)
<b>WCA (13-49 years)</b>	4.81 (3.8,6.1)	0.81 (0.5,1.3)	2.49 (1.6,3.9)	6.06 (4.5,8.1)	11.96 (9.3,15.3)	17.24 (13.0,22.8)	21.55 (15.7,29.5)	32.23 (21.9,47.5)
<b>Income</b>								
<\$20,000	5.62 (4.4,7.2)	0.93 (0.5,1.7)	2.83 (1.7,4.7)	6.93 (5.1,9.5)	13.33 (10.1,17.6)	19.03 (14.1,25.7)	24.77 (18.1,33.8)	42.62 (22.1,82.3)
>\$20,000	6.30 (4.9,8.1)	1.35 (0.7,2.6)	3.47 (2.0,6.1)	7.86 (5.5,11.2)	15.21 (11.9,19.4)	21.73 (16.2,29.2)	27.04 (19.1,38.2)	39.86 (25.6,62.1)
Income unknown	8.37 (5.0,14.0)	1.84 (0.8,4.0)	5.13 (2.8,9.4)	11.18 (6.5,19.3)	20.54 (11.8,35.6)	27.94 (16.1,48.5)	35.10 (17.8,69.1)	45.20 (24.2,84.3)
<b>Income, finer detail</b>								
<\$20,000	5.62 (4.4,7.2)	0.93 (0.5,1.7)	2.83 (1.7,4.7)	6.93 (5.1,9.5)	13.33 (10.1,17.6)	19.03 (14.1,25.7)	24.77 (18.1,33.8)	42.62 (22.1,82.3)
\$20k-\$45k	5.41 (4.2,7.0)	1.05 (0.5,2.0)	2.88 (1.7,4.8)	6.72 (4.9,9.2)	13.08 (10.1,16.9)	18.98 (13.6,26.4)	24.00 (16.3,35.3)	38.34 (21.2,69.4)
\$45k-\$75k	5.67 (4.2,7.6)	1.18 (0.6,2.3)	3.12 (1.9,5.2)	7.07 (4.9,10.2)	13.76 (10.3,18.4)	19.92 (13.9,28.5)	24.57 (16.5,36.6)	36.13 (22.0,59.3)
\$75k+	7.45 (5.5,10.2)	1.79 (0.8,4.1)	4.36 (2.3,8.3)	9.38 (6.1,14.4)	17.61 (13.2,23.4)	25.08 (18.4,34.1)	30.66 (21.6,43.4)	45.85 (27.1,77.6)
>\$20,000	6.62 (3.7,11.9)	1.50 (0.7,3.3)	3.79 (1.9,7.4)	8.82 (5.1,15.3)	16.38 (7.4,36.1)	21.62 (10.0,46.7)	27.37 (10.6,70.6)	34.49 (15.5,76.6)
Inc Ref/DK	7.54 (4.7,12.2)	1.58 (0.8,2.9)	4.56 (2.8,7.5)	10.31 (6.1,17.5)	18.37 (10.9,30.9)	24.69 (14.2,43.0)	30.61 (16.4,57.0)	41.64 (20.4,85.0)
Inc missing	10.25 (3.3,32.2)	2.38 (0.4,13.0)	6.65 (1.6,27.2)	13.17 (4.4,39.0)	23.90 (8.3,69.1)	36.35 (9.8,135.1)	45.20 (11.1,184.6)	57.11 (16.8,193.7)
<b>Race/Ethnicity</b>								
Mexican American	7.85 (5.5,11.2)	1.69 (0.9,3.1)	4.81 (3.0,7.8)	10.22 (7.0,15.0)	18.43 (12.9,26.4)	25.58 (17.7,36.9)	31.43 (21.4,46.1)	46.77 (30.3,72.3)
Other Hispanic	8.36 (5.5,12.7)	1.76 (1.0,3.1)	4.64 (2.8,7.7)	10.11 (6.5,15.7)	19.55 (12.9,29.6)	28.64 (16.5,49.8)	36.53 (18.4,72.6)	54.82 (21.9,137.5)
White	5.24 (3.8,7.2)	1.13 (0.6,2.2)	2.93 (1.6,5.3)	6.62 (4.4,10.0)	12.70 (9.5,17.1)	18.11 (13.6,24.1)	22.62 (16.5,31.1)	33.30 (21.8,50.9)
Black	6.58 (4.9,8.9)	1.65 (0.8,3.2)	4.20 (2.6,6.8)	8.66 (6.1,12.3)	15.39 (11.5,20.6)	20.80 (15.1,28.7)	25.16 (17.5,36.2)	35.80 (22.8,56.3)
Other race	13.68 (7.8,23.9)	3.36 (1.9,5.9)	8.71 (5.2,14.7)	18.04 (10.1,32.2)	30.94 (17.5,54.8)	44.50 (21.3,92.9)	57.03 (23.3,139.3)	79.90 (30.5,209.2)

484  
485

**Table C-17. Estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	3.19 (2.0,5.1)	0.71 (0.3,1.5)	1.76 (0.9,3.5)	3.74 (2.0,7.0)	7.24 (4.4,11.8)	10.57 (6.8,16.5)	13.72 (8.9,21.0)	23.22 (13.6,39.8)
Northeast	7.91 (6.4,9.8)	1.95 (1.0,3.8)	5.03 (3.2,8.0)	10.62 (8.3,13.5)	18.73 (14.8,23.7)	25.31 (18.6,34.5)	30.67 (21.2,44.4)	41.58 (27.2,63.5)
South	7.22 (5.3,9.8)	1.66 (0.9,3.1)	4.24 (2.7,6.7)	9.00 (6.3,12.9)	17.02 (12.3,23.5)	23.92 (16.7,34.3)	29.47 (19.9,43.6)	47.57 (23.7,95.7)
West	7.03 (5.0,9.8)	1.68 (0.9,3.3)	4.09 (2.4,7.1)	8.93 (6.3,12.7)	16.42 (11.6,23.3)	23.00 (15.3,34.6)	28.92 (17.6,47.5)	42.22 (23.6,75.4)
<b>Coastal Status</b>								
Noncoastal	5.10 (3.9,6.6)	1.03 (0.5,1.9)	2.71 (1.5,4.8)	6.27 (4.4,9.0)	12.28 (9.3,16.2)	18.07 (12.8,25.5)	22.63 (15.1,33.9)	34.19 (19.9,58.9)
Coastal	8.10 (5.9,11.0)	1.99 (0.9,4.3)	4.90 (2.8,8.7)	10.37 (7.1,15.1)	18.79 (13.9,25.3)	25.85 (19.0,35.1)	31.95 (22.8,44.8)	50.54 (28.1,91.0)
<b>Coastal/Inland Region</b>								
Pacific	7.29 (4.3,12.4)	1.76 (0.7,4.5)	4.34 (2.1,9.1)	9.48 (5.6,16.1)	17.19 (10.3,28.8)	23.86 (13.6,41.8)	29.33 (15.8,54.4)	42.83 (20.6,89.0)
Atlantic	8.09 (4.9,13.4)	2.42 (0.9,6.6)	5.39 (2.4,12.2)	10.68 (6.0,18.9)	18.04 (11.5,28.3)	24.45 (16.6,36.0)	28.93 (19.5,42.9)	43.37 (26.4,71.3)
Gulf of Mexico	12.81 (7.8,21.0)	3.48 (1.3,9.4)	8.18 (3.9,17.3)	16.51 (9.5,28.6)	28.24 (17.9,44.5)	41.56 (23.4,73.8)	51.91 (26.7,100.9)	70.78 (36.1,138.9)
Great Lakes	5.33 (3.5,8.1)	1.10 (0.4,3.0)	2.70 (1.2,6.0)	6.05 (3.7,10.0)	11.87 (7.8,18.0)	18.84 (10.3,34.3)	24.43 (12.5,47.9)	42.46 (16.0,112.8)
Inland Northeast	7.58 (5.3,10.8)	1.52 (0.6,3.6)	4.45 (2.5,7.9)	10.15 (7.1,14.5)	19.01 (11.2,32.1)	25.71 (14.3,46.1)	31.91 (15.9,63.9)	41.28 (23.2,73.4)
Inland Midwest	2.63 (1.7,4.1)	0.64 (0.3,1.2)	1.59 (0.9,2.8)	3.37 (2.1,5.5)	6.17 (3.9,9.7)	8.54 (5.3,13.7)	10.81 (6.7,17.4)	16.25 (9.5,27.7)
Inland South	5.48 (4.1,7.3)	1.26 (0.7,2.2)	3.26 (2.2,4.9)	6.95 (5.3,9.2)	12.55 (9.2,17.1)	18.23 (12.0,27.8)	21.98 (14.1,34.3)	33.55 (17.8,63.4)
Inland West	6.75 (4.8,9.5)	1.59 (0.9,2.9)	3.88 (2.3,6.4)	8.44 (6.0,11.9)	15.63 (10.6,23.0)	22.31 (13.5,37.0)	28.08 (15.2,52.0)	42.22 (18.8,94.8)

488  
489

DRAFT DOCUMENT

490  
491

**Table C-18. Estuarine fish usual fish consumption rate estimates, youth >21 years**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	2.47 (1.9,3.3)	0.24 (0.1,0.4)	0.79 (0.5,1.3)	2.45 (1.6,3.9)	6.21 (4.4,8.7)	10.64 (7.9,14.3)	14.41 (10.4,20.0)	23.22 (16.2,33.2)
<b>Gender</b>								
Female	2.46 (1.7,3.5)	0.24 (0.1,0.5)	0.79 (0.4,1.4)	2.47 (1.5,4.2)	6.26 (4.3,9.2)	10.64 (7.5,15.1)	14.38 (9.9,20.9)	22.22 (15.2,32.5)
Male	2.48 (1.9,3.3)	0.25 (0.1,0.4)	0.79 (0.5,1.2)	2.43 (1.6,3.6)	6.18 (4.4,8.6)	10.63 (7.8,14.4)	14.44 (10.2,20.5)	23.89 (15.7,36.3)
<b>Age</b>								
1 to <3 yrs	1.39 (0.6,3.1)	0.13 (0.1,0.3)	0.41 (0.2,0.8)	1.26 (0.7,2.1)	3.09 (1.7,5.7)	5.40 (2.5,11.9)	8.35 (2.7,25.5)	16.46 (3.6,74.5)
3 to <6 yrs	1.55 (1.0,2.5)	0.18 (0.1,0.4)	0.59 (0.3,1.1)	1.73 (1.0,3.1)	3.94 (2.3,6.7)	6.37 (4.0,10.1)	8.80 (5.5,14.2)	13.35 (8.1,21.9)
6 to <11 yrs	2.05 (1.3,3.2)	0.19 (0.1,0.5)	0.64 (0.3,1.4)	2.02 (1.0,4.0)	5.12 (3.1,8.4)	8.54 (5.4,13.6)	11.65 (7.3,18.5)	20.96 (10.9,40.4)
11 to <16 yrs	2.52 (1.4,4.5)	0.28 (0.1,0.7)	0.91 (0.4,2.0)	2.79 (1.4,5.4)	6.38 (3.4,12.1)	10.49 (6.3,17.5)	13.48 (7.6,23.9)	21.42 (11.5,39.9)
16 to <18 yrs	2.59 (1.5,4.4)	0.24 (0.1,0.8)	0.76 (0.2,2.5)	2.39 (0.9,6.5)	6.22 (3.0,13.1)	11.09 (6.9,17.8)	15.43 (9.9,24.0)	30.44 (13.5,68.8)
18 to <21 yrs	4.66 (2.7,8.1)	0.62 (0.3,1.3)	1.98 (1.1,3.5)	5.58 (3.3,9.4)	12.43 (6.5,23.6)	17.81 (10.0,31.8)	22.26 (12.4,40.0)	36.21 (17.2,76.2)
<b>Income</b>								
<\$20,000	2.69 (2.0,3.6)	0.29 (0.2,0.5)	0.91 (0.6,1.5)	2.92 (2.0,4.3)	7.13 (5.2,9.7)	11.32 (8.2,15.5)	14.92 (10.9,20.4)	22.39 (14.6,34.3)
>\$20,000	2.34 (1.7,3.2)	0.23 (0.1,0.4)	0.75 (0.4,1.3)	2.29 (1.4,3.8)	5.82 (4.0,8.5)	10.02 (7.4,13.6)	13.57 (9.7,18.9)	22.26 (15.2,32.5)
Income unknown	4.28 (2.0,9.1)	0.37 (0.2,0.8)	1.30 (0.6,2.7)	4.61 (2.0,10.6)	12.76 (4.3,38.2)	19.78 (7.3,53.9)	23.93 (10.0,57.5)	32.38 (13.4,78.5)
<b>Income, finer detail</b>								
<\$20,000	2.69 (2.0,3.6)	0.29 (0.2,0.5)	0.91 (0.6,1.5)	2.92 (2.0,4.3)	7.13 (5.2,9.7)	11.32 (8.2,15.5)	14.92 (10.9,20.4)	22.39 (14.6,34.3)
\$20k-\$45k	2.27 (1.6,3.2)	0.23 (0.1,0.4)	0.73 (0.4,1.3)	2.31 (1.6,3.4)	6.04 (4.2,8.7)	9.92 (6.5,15.1)	13.75 (8.2,23.0)	20.79 (13.4,32.2)
\$45k-\$75k	1.82 (1.0,3.2)	0.19 (0.1,0.4)	0.60 (0.3,1.2)	1.74 (0.7,4.2)	4.56 (2.3,9.1)	7.76 (4.5,13.3)	10.41 (6.2,17.4)	17.24 (9.8,30.4)
\$75k+	2.68 (1.9,3.7)	0.24 (0.1,0.4)	0.87 (0.5,1.4)	2.56 (1.5,4.3)	6.28 (3.8,10.3)	11.50 (8.1,16.3)	15.63 (10.6,23.1)	28.70 (14.2,57.8)
>\$20,000	3.02 (1.6,5.7)	0.36 (0.1,0.9)	1.24 (0.6,2.7)	3.44 (1.7,6.9)	8.63 (3.4,21.9)	12.17 (5.7,26.2)	13.91 (7.3,26.3)	19.28 (9.1,40.7)
Inc Ref/DK	3.45 (1.7,6.9)	0.30 (0.1,1.0)	1.14 (0.5,2.8)	3.96 (1.7,9.4)	9.92 (4.0,24.9)	15.28 (6.6,35.4)	19.07 (8.7,41.8)	25.19 (11.1,57.2)
Inc missing	5.42 (1.3,22.8)	0.50 (0.1,1.8)	1.39 (0.4,4.7)	6.44 (1.1,37.7)	17.31 (2.5,121.0)	23.93 (4.9,117.0)	30.38 (6.5,141.7)	36.60 (9.9,136.0)
<b>Race/Ethnicity</b>								
Mexican American	2.46 (1.5,4.2)	0.31 (0.2,0.6)	1.01 (0.6,1.7)	2.82 (1.7,4.6)	6.37 (4.1,9.8)	10.04 (6.4,15.7)	13.47 (8.6,21.1)	19.49 (8.5,45.0)
Other Hispanic	1.62 (0.4,7.1)	0.20 (0.1,0.6)	0.58 (0.2,2.1)	1.66 (0.4,7.8)	4.31 (1.0,18.6)	6.44 (1.2,35.6)	8.68 (1.7,45.4)	14.61 (3.1,68.8)
White	1.87 (1.2,2.8)	0.19 (0.1,0.3)	0.59 (0.3,1.0)	1.80 (1.1,2.9)	4.63 (3.1,7.0)	8.06 (5.0,12.9)	12.04 (6.0,24.3)	19.40 (10.2,37.0)
Black	3.02 (1.4,6.5)	0.47 (0.2,1.1)	1.39 (0.6,3.2)	3.67 (1.6,8.6)	8.00 (4.0,15.8)	11.13 (4.9,25.1)	14.13 (6.4,31.1)	21.24 (9.2,48.9)
Other race	6.92 (2.7,17.4)	0.62 (0.3,1.2)	2.88 (1.2,6.7)	8.20 (3.9,17.3)	17.81 (7.2,43.9)	29.62 (7.8,112.7)	37.37 (9.3,149.4)	57.94 (12.4,269.7)

492  
493

**Table C-18. Estuarine fish usual fish consumption rate estimates, youth >21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.82 (0.9,3.6)	0.15 (0.1,0.3)	0.49 (0.2,1.0)	1.52 (0.8,3.1)	4.47 (2.0,10.0)	8.08 (3.5,18.6)	11.57 (5.3,25.5)	19.98 (9.1,44.0)
Northeast	2.57 (1.7,3.9)	0.21 (0.1,0.7)	0.74 (0.2,2.4)	2.52 (1.1,5.8)	7.09 (5.0,10.0)	12.35 (8.0,19.1)	15.85 (10.2,24.6)	23.22 (14.8,36.5)
South	2.71 (1.8,4.2)	0.34 (0.2,0.6)	1.05 (0.6,1.9)	2.96 (1.8,4.9)	6.84 (4.4,10.6)	10.95 (6.8,17.7)	14.71 (8.5,25.4)	22.69 (12.5,41.3)
West	2.70 (1.7,4.3)	0.26 (0.1,0.5)	0.90 (0.5,1.5)	2.68 (1.7,4.2)	6.53 (4.2,10.0)	11.48 (6.4,20.6)	15.17 (8.2,27.9)	28.40 (10.0,80.4)
<b>Coastal Status</b>								
Noncoastal	1.87 (1.3,2.7)	0.21 (0.1,0.4)	0.64 (0.4,1.2)	1.96 (1.2,3.1)	4.78 (3.4,6.8)	7.71 (5.5,10.8)	10.68 (7.6,15.1)	16.52 (10.7,25.6)
Coastal	3.43 (2.4,4.8)	0.32 (0.2,0.6)	1.11 (0.6,2.0)	3.51 (2.0,6.3)	9.25 (6.4,13.3)	14.89 (10.2,21.8)	19.73 (13.0,30.0)	32.63 (18.6,57.3)
<b>Coastal/Inland Region</b>								
Pacific	3.60 (1.7,7.7)	0.24 (0.1,0.5)	0.95 (0.5,1.7)	3.26 (2.0,5.3)	9.79 (4.6,21.0)	15.83 (6.8,36.6)	21.87 (7.9,60.3)	41.59 (7.7,224.4)
Atlantic	2.74 (1.3,6.0)	0.37 (0.1,1.1)	1.13 (0.3,3.9)	3.24 (1.2,8.8)	7.43 (3.9,14.1)	10.77 (5.6,20.6)	14.10 (8.2,24.2)	20.93 (11.7,37.5)
Gulf of Mexico	5.28 (1.3,21.0)	0.75 (0.2,3.7)	2.19 (0.5,10.1)	6.19 (1.4,28.0)	14.28 (3.1,66.5)	20.99 (5.0,88.2)	28.03 (6.6,119.5)	42.33 (11.0,163.5)
Great Lakes	2.92 (1.3,6.6)	0.20 (0.1,0.5)	0.68 (0.2,1.9)	2.29 (0.6,9.5)	7.69 (2.7,21.9)	13.99 (6.5,30.3)	19.79 (10.6,36.8)	35.70 (19.9,63.9)
Inland Northeast	2.22 (1.2,4.1)	0.14 (0.0,1.0)	0.51 (0.1,3.3)	1.82 (0.4,7.5)	5.29 (2.2,12.7)	12.07 (6.7,21.8)	15.79 (8.6,29.1)	23.30 (13.0,41.8)
Inland Midwest	1.46 (0.7,3.1)	0.14 (0.1,0.4)	0.46 (0.2,1.1)	1.33 (0.6,2.9)	3.77 (1.6,8.7)	6.42 (2.7,15.3)	9.22 (3.6,23.9)	15.08 (5.9,38.4)
Inland South	2.04 (1.4,2.9)	0.29 (0.2,0.5)	0.85 (0.5,1.4)	2.37 (1.5,3.6)	5.15 (3.5,7.5)	8.00 (5.5,11.6)	10.64 (7.2,15.7)	16.11 (10.3,25.3)
Inland West	1.95 (1.0,3.6)	0.27 (0.1,0.6)	0.85 (0.4,1.7)	2.32 (1.2,4.3)	5.13 (2.9,9.1)	7.44 (3.9,14.1)	9.96 (5.3,18.6)	15.02 (7.3,30.8)

494  
495

**Table C-19. Freshwater + estuarine fish usual fish consumption rate estimates, all ages**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	7.20 (5.6,9.3)	1.10 (0.7,1.8)	3.55 (2.2,5.8)	8.93 (6.3,12.6)	18.03 (14.1,23.0)	26.42 (20.9,33.3)	33.38 (26.0,42.8)	50.86 (37.4,69.1)
<b>Gender</b>								
Female	6.12 (4.6,8.2)	0.95 (0.6,1.6)	3.06 (1.8,5.1)	7.57 (5.1,11.3)	15.10 (11.2,20.3)	22.35 (17.2,29.0)	28.17 (21.3,37.2)	42.20 (30.4,58.6)
Male	8.50 (6.6,11.0)	1.33 (0.8,2.2)	4.28 (2.7,6.8)	10.75 (7.8,14.7)	21.42 (17.0,27.0)	30.85 (24.3,39.1)	38.21 (29.4,49.6)	58.53 (42.5,80.7)
<b>Age</b>								
1 to <3 yrs	2.17 (1.2,4.0)	0.21 (0.1,0.4)	0.66 (0.4,1.2)	2.08 (1.3,3.4)	5.07 (3.1,8.3)	8.78 (4.7,16.3)	13.40 (5.4,33.3)	25.24 (7.4,86.0)
3 to <6 yrs	2.37 (1.6,3.6)	0.25 (0.1,0.5)	0.86 (0.5,1.5)	2.58 (1.6,4.3)	6.04 (3.9,9.4)	9.65 (6.4,14.6)	12.80 (8.3,19.7)	21.50 (12.3,37.6)
6 to <11 yrs	3.08 (2.1,4.5)	0.36 (0.2,0.6)	1.14 (0.7,1.9)	3.35 (2.2,5.1)	7.80 (5.2,11.8)	12.90 (8.4,19.8)	16.34 (10.3,26.0)	28.29 (17.1,46.7)
11 to <16 yrs	3.55 (2.2,5.8)	0.44 (0.2,1.0)	1.33 (0.6,2.9)	4.09 (2.4,7.1)	8.96 (5.3,15.1)	13.63 (7.8,23.8)	18.66 (12.0,29.0)	32.51 (22.1,47.9)
16 to <18 yrs	3.36 (1.6,7.0)	0.30 (0.0,1.9)	1.04 (0.2,4.9)	3.19 (0.9,10.9)	8.18 (3.5,19.3)	14.00 (7.5,26.1)	19.21 (11.3,32.8)	37.96 (20.6,70.0)
18 to <21 yrs	5.37 (3.7,7.8)	0.72 (0.4,1.4)	2.32 (1.4,3.9)	6.48 (4.2,10.1)	14.16 (9.6,21.0)	20.81 (13.9,31.2)	27.64 (18.4,41.4)	40.11 (24.7,65.1)
21 to <35 yrs	8.52 (6.6,11.0)	1.62 (1.0,2.6)	4.48 (3.2,6.2)	10.30 (8.1,13.2)	20.52 (15.6,26.9)	29.91 (22.3,40.2)	37.39 (27.7,50.5)	63.76 (36.5,111.4)
35 to <50 yrs	8.73 (6.2,12.3)	1.92 (1.1,3.4)	4.82 (2.8,8.3)	10.88 (7.1,16.6)	20.91 (14.9,29.4)	29.98 (21.4,42.0)	38.00 (26.9,53.8)	56.84 (38.1,84.8)
50 to <65 yrs	9.98 (7.3,13.7)	2.73 (1.4,5.4)	6.32 (3.7,10.7)	12.85 (8.9,18.4)	23.11 (17.6,30.4)	31.87 (24.1,42.2)	38.28 (28.1,52.1)	57.09 (38.3,85.1)
65+ yrs	7.40 (4.5,12.2)	1.66 (0.6,4.8)	4.27 (1.9,9.7)	9.42 (5.3,16.6)	17.70 (11.8,26.5)	25.00 (17.7,35.4)	31.28 (23.1,42.4)	45.01 (32.0,63.3)
<b>Income</b>								
<\$20,000	6.73 (5.2,8.7)	0.94 (0.6,1.5)	3.08 (2.0,4.8)	8.16 (5.7,11.6)	16.53 (12.0,22.8)	25.40 (19.9,32.5)	32.27 (24.7,42.2)	50.74 (36.2,71.1)
>\$20,000	7.21 (5.4,9.6)	1.13 (0.7,1.9)	3.59 (2.1,6.1)	8.94 (6.1,13.1)	17.98 (13.8,23.5)	26.28 (20.5,33.7)	33.20 (25.7,42.9)	50.63 (37.0,69.2)
Income unknown	9.46 (5.4,16.7)	1.56 (0.7,3.6)	5.25 (2.3,11.8)	13.11 (6.0,28.4)	24.84 (12.7,48.7)	33.32 (19.5,57.1)	38.76 (24.4,61.6)	56.68 (33.4,96.1)
<b>Income, finer detail</b>								
<\$20,000	6.73 (5.2,8.7)	0.94 (0.6,1.5)	3.08 (2.0,4.8)	8.16 (5.7,11.6)	16.53 (12.0,22.8)	25.40 (19.9,32.5)	32.27 (24.7,42.2)	50.74 (36.2,71.1)
\$20k-\$45k	6.48 (4.6,9.2)	1.01 (0.6,1.8)	3.21 (1.9,5.5)	7.91 (5.0,12.6)	15.88 (11.1,22.8)	23.92 (18.0,31.9)	30.40 (22.7,40.8)	47.18 (33.6,66.2)
\$45k-\$75k	6.65 (5.0,8.9)	0.99 (0.6,1.8)	3.35 (2.1,5.2)	8.41 (6.0,11.8)	16.66 (12.6,22.0)	23.49 (17.3,31.9)	29.75 (21.9,40.5)	47.37 (31.9,70.3)
\$75k+	8.11 (5.8,11.3)	1.33 (0.7,2.5)	4.05 (2.0,8.0)	10.05 (6.3,16.0)	20.45 (15.4,27.2)	30.03 (23.2,38.9)	37.21 (28.1,49.3)	54.13 (38.7,75.8)
>\$20,000	8.13 (4.3,15.4)	1.53 (0.8,3.1)	4.83 (2.4,9.8)	10.78 (5.5,21.2)	19.96 (9.9,40.2)	27.33 (14.0,53.5)	34.82 (15.9,76.1)	48.59 (23.9,98.9)
Inc Ref/DK	8.99 (5.0,16.1)	1.45 (0.8,2.6)	5.00 (2.6,9.6)	12.10 (6.3,23.1)	23.22 (11.9,45.4)	30.98 (17.3,55.4)	37.94 (20.3,70.9)	50.48 (28.4,89.6)
Inc missing	10.35 (3.5,30.4)	1.71 (0.3,8.5)	5.55 (1.3,23.3)	14.41 (3.9,53.8)	27.21 (8.8,84.1)	35.91 (13.5,95.7)	42.86 (17.8,103.1)	61.28 (25.1,149.8)
<b>Race/Ethnicity</b>								
Mexican American	7.56 (4.8,11.9)	1.11 (0.7,1.9)	3.75 (2.4,5.8)	9.73 (6.2,15.2)	19.76 (13.2,29.5)	28.13 (18.2,43.5)	34.23 (20.5,57.0)	47.33 (23.4,95.7)
Other Hispanic	8.08 (5.6,11.6)	0.95 (0.6,1.6)	3.35 (1.9,5.9)	9.31 (5.5,15.9)	20.18 (13.4,30.4)	32.99 (20.5,53.1)	44.23 (22.8,85.9)	65.76 (31.2,138.7)
White	5.91 (4.1,8.5)	0.94 (0.5,1.6)	3.08 (1.8,5.3)	7.40 (4.6,11.9)	14.73 (10.3,21.1)	21.61 (16.1,29.1)	26.78 (19.6,36.6)	39.38 (27.9,55.5)
Black	8.93 (6.5,12.3)	1.82 (1.1,3.2)	5.28 (3.3,8.5)	11.59 (7.7,17.4)	21.42 (15.5,29.5)	29.74 (21.7,40.8)	36.28 (26.1,50.5)	53.05 (37.7,74.6)
Other race	15.96 (9.2,27.6)	2.68 (1.5,4.7)	9.06 (5.2,15.9)	20.84 (11.9,36.6)	39.32 (21.8,70.8)	55.32 (30.8,99.3)	69.15 (36.2,131.9)	95.55 (54.1,168.8)

498  
499

Table C-19. Freshwater + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.71 (2.9,7.6)	0.69 (0.4,1.3)	2.29 (1.2,4.4)	5.59 (2.9,10.7)	11.25 (6.2,20.3)	16.64 (9.6,28.8)	21.38 (12.9,35.5)	35.12 (23.0,53.6)
Northeast	8.36 (6.8,10.3)	1.22 (0.7,2.2)	4.45 (2.8,7.0)	11.31 (8.9,14.4)	21.43 (17.2,26.8)	30.00 (23.2,38.8)	35.85 (27.4,46.9)	50.06 (36.5,68.6)
South	8.64 (6.4,11.6)	1.52 (1.0,2.4)	4.62 (3.1,7.0)	11.02 (7.9,15.4)	21.42 (16.0,28.7)	30.35 (22.6,40.8)	37.36 (27.1,51.5)	57.49 (40.1,82.4)
West	6.99 (4.8,10.2)	1.12 (0.6,2.1)	3.46 (1.8,6.5)	8.44 (5.1,13.8)	16.93 (11.5,24.9)	25.93 (18.1,37.2)	33.38 (22.3,50.0)	51.61 (32.0,83.1)
<b>Coastal Status</b>								
Noncoastal	6.11 (4.6,8.2)	0.92 (0.5,1.6)	3.02 (1.9,4.9)	7.61 (5.2,11.1)	15.16 (11.1,20.7)	22.57 (17.2,29.6)	28.42 (21.2,38.1)	42.18 (29.6,60.2)
Coastal	8.93 (6.5,12.2)	1.50 (0.8,2.7)	4.62 (2.6,8.2)	11.13 (7.3,16.9)	22.35 (16.9,29.5)	31.93 (24.3,41.9)	39.79 (30.0,52.8)	61.23 (43.8,85.6)
<b>Coastal/Inland Region</b>								
Pacific	7.82 (5.1,12.0)	1.27 (0.6,2.5)	3.96 (2.0,7.8)	9.56 (5.6,16.3)	19.45 (12.9,29.4)	28.92 (19.3,43.4)	36.63 (23.7,56.5)	54.12 (33.0,88.9)
Atlantic	8.42 (5.0,14.3)	1.76 (0.7,4.2)	5.00 (2.2,11.3)	11.05 (5.8,21.1)	20.47 (12.9,32.4)	28.39 (19.3,41.8)	34.63 (24.1,49.7)	48.56 (33.9,69.6)
Gulf of Mexico	15.04 (9.1,24.9)	2.83 (0.8,9.5)	9.02 (3.8,21.3)	19.90 (11.1,35.6)	35.56 (22.5,56.2)	50.97 (35.4,73.3)	61.12 (43.2,86.4)	87.47 (61.6,124.3)
Great Lakes	6.69 (4.6,9.7)	0.83 (0.4,1.8)	2.88 (1.4,5.8)	7.21 (4.1,12.8)	15.38 (10.0,23.6)	24.49 (16.2,37.1)	33.53 (19.5,57.8)	71.89 (17.3,298.9)
Inland Northeast	7.98 (5.7,11.2)	0.91 (0.4,2.3)	3.67 (1.9,7.1)	10.77 (7.4,15.7)	21.37 (13.6,33.6)	30.22 (18.5,49.3)	35.93 (22.7,56.8)	49.40 (32.3,75.6)
Inland Midwest	4.16 (2.4,7.1)	0.66 (0.4,1.2)	2.15 (1.2,3.9)	5.19 (2.8,9.5)	10.34 (5.9,18.2)	14.71 (8.0,26.9)	18.76 (10.6,33.3)	27.62 (15.0,50.9)
Inland South	7.17 (5.5,9.4)	1.24 (0.8,1.9)	3.95 (2.9,5.5)	9.49 (7.1,12.6)	17.84 (13.4,23.8)	25.06 (18.4,34.1)	30.46 (22.1,42.0)	43.51 (29.7,63.8)
Inland West	6.16 (3.7,10.3)	1.02 (0.5,2.2)	3.07 (1.5,6.4)	7.32 (3.8,14.1)	14.23 (7.7,26.4)	22.36 (13.6,36.9)	29.73 (17.4,50.8)	48.02 (24.1,95.7)

500  
501

DRAFT DOCUMENT

502  
503

Table C-20. Freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	8.75 (6.8,11.3)	1.93 (1.1,3.3)	4.93 (3.0,8.0)	10.99 (8.0,15.1)	20.90 (16.6,26.3)	29.74 (23.5,37.6)	36.80 (28.3,47.8)	57.09 (40.1,81.2)
<b>Gender</b>								
Female	7.32 (5.5,9.7)	1.63 (1.0,2.8)	4.16 (2.5,6.8)	9.15 (6.3,13.2)	17.20 (13.0,22.7)	24.63 (18.8,32.3)	31.06 (23.4,41.3)	46.02 (32.6,65.0)
Male	10.58 (8.2,13.7)	2.50 (1.5,4.3)	6.13 (3.8,10.0)	13.56 (10.1,18.2)	25.09 (19.9,31.6)	35.13 (27.2,45.3)	43.32 (32.9,57.1)	64.41 (45.9,90.4)
<b>Age</b>								
21 to <35 yrs	8.52 (6.6,11.0)	1.62 (1.0,2.6)	4.48 (3.2,6.2)	10.30 (8.1,13.2)	20.52 (15.6,26.9)	29.91 (22.3,40.2)	37.39 (27.7,50.5)	63.76 (36.5,111.4)
35 to <50 yrs	8.73 (6.2,12.3)	1.92 (1.1,3.4)	4.82 (2.8,8.3)	10.88 (7.1,16.6)	20.91 (14.9,29.4)	29.98 (21.4,42.0)	38.00 (26.9,53.8)	56.84 (38.1,84.8)
50 to <65 yrs	9.98 (7.3,13.7)	2.73 (1.4,5.4)	6.32 (3.7,10.7)	12.85 (8.9,18.4)	23.11 (17.6,30.4)	31.87 (24.1,42.2)	38.28 (28.1,52.1)	57.09 (38.3,85.1)
65+ yrs	7.40 (4.5,12.2)	1.66 (0.6,4.8)	4.27 (1.9,9.7)	9.42 (5.3,16.6)	17.70 (11.8,26.5)	25.00 (17.7,35.4)	31.28 (23.1,42.4)	45.01 (32.0,63.3)
<b>WCA (13-49 years)</b>	6.48 (5.0,8.4)	1.09 (0.7,1.7)	3.26 (2.1,5.0)	7.86 (5.5,11.2)	15.79 (11.9,21.0)	23.70 (18.1,31.0)	29.90 (22.2,40.2)	46.38 (32.4,66.4)
<b>Income</b>								
<\$20,000	8.07 (6.1,10.6)	1.44 (0.8,2.6)	4.34 (2.8,6.7)	10.11 (7.2,14.2)	19.24 (14.2,26.1)	28.33 (21.7,36.9)	34.81 (25.7,47.1)	58.09 (37.4,90.2)
>\$20,000	8.79 (6.7,11.6)	2.00 (1.1,3.6)	4.96 (2.9,8.5)	11.00 (7.8,15.6)	20.89 (16.3,26.7)	29.74 (23.2,38.0)	36.87 (28.2,48.3)	56.78 (40.0,80.6)
Income unknown	11.14 (6.4,19.5)	2.79 (1.0,7.9)	6.87 (3.6,13.3)	15.02 (7.9,28.6)	26.41 (15.3,45.6)	35.91 (20.8,61.9)	44.10 (25.0,77.8)	61.28 (33.2,113.1)
<b>Income, finer detail</b>								
<\$20,000	8.07 (6.1,10.6)	1.44 (0.8,2.6)	4.34 (2.8,6.7)	10.11 (7.2,14.2)	19.24 (14.2,26.1)	28.33 (21.7,36.9)	34.81 (25.7,47.1)	58.09 (37.4,90.2)
\$20k-\$45k	7.81 (5.5,11.1)	1.69 (0.9,3.1)	4.34 (2.4,7.8)	9.73 (6.4,14.7)	18.13 (12.6,26.0)	26.82 (20.1,35.8)	33.30 (24.3,45.6)	54.19 (36.8,79.7)
\$45k-\$75k	8.10 (6.2,10.6)	1.82 (1.1,3.1)	4.71 (3.2,7.0)	10.36 (7.7,14.0)	19.28 (14.8,25.1)	26.33 (19.4,35.8)	33.11 (24.2,45.4)	53.44 (33.7,84.8)
\$75k+	10.02 (7.2,13.9)	2.42 (1.1,5.2)	5.66 (2.8,11.3)	12.61 (8.4,19.0)	23.62 (17.8,31.4)	34.06 (26.2,44.3)	41.31 (30.9,55.3)	62.84 (42.0,94.1)
>\$20,000	9.43 (5.2,17.0)	2.26 (1.1,4.5)	5.89 (3.3,10.7)	12.27 (6.9,21.9)	22.36 (11.2,44.8)	29.72 (15.6,56.7)	37.96 (17.3,83.3)	51.37 (25.4,103.9)
Inc Ref/DK	10.49 (5.8,19.0)	2.42 (1.2,4.8)	6.60 (3.5,12.5)	14.54 (7.1,29.8)	26.10 (12.7,53.5)	33.66 (18.0,63.1)	39.71 (21.8,72.3)	50.89 (28.5,90.9)
Inc missing	12.60 (4.4,35.9)	3.55 (0.5,26.8)	7.54 (2.3,25.0)	16.14 (5.5,47.5)	29.99 (10.4,86.7)	38.76 (15.0,99.9)	56.84 (16.5,195.4)	66.74 (26.6,167.2)
<b>Race/Ethnicity</b>								
Mexican American	10.21 (6.4,16.3)	2.39 (1.4,4.0)	6.47 (4.1,10.1)	13.40 (8.3,21.6)	24.78 (16.5,37.3)	32.70 (19.4,55.2)	38.63 (20.9,71.4)	53.80 (26.5,109.3)
Other Hispanic	11.11 (7.6,16.3)	2.34 (1.4,3.9)	5.93 (3.5,10.0)	12.85 (8.0,20.7)	27.60 (17.7,43.1)	41.19 (22.0,77.3)	53.33 (24.3,117.0)	76.96 (32.7,181.1)
White	7.11 (4.9,10.3)	1.67 (0.9,3.1)	4.17 (2.4,7.3)	9.04 (5.8,14.0)	16.99 (12.3,23.4)	23.76 (17.2,32.7)	29.73 (22.0,40.1)	42.53 (30.0,60.2)
Black	10.78 (8.1,14.4)	2.88 (1.6,5.1)	7.04 (4.6,10.9)	14.10 (10.0,19.9)	24.54 (18.3,33.0)	33.01 (23.9,45.7)	40.13 (29.1,55.3)	60.52 (40.2,91.1)
Other race	19.87 (11.8,33.5)	5.20 (3.0,9.0)	13.23 (7.1,24.8)	25.91 (14.8,45.5)	46.42 (25.8,83.6)	64.67 (34.0,123.0)	78.09 (41.9,145.6)	103.85 (59.7,180.8)

504  
505

Table C-20. Freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	5.50 (3.3,9.3)	1.22 (0.6,2.6)	3.09 (1.5,6.4)	6.57 (3.2,13.3)	12.43 (6.8,22.8)	17.80 (9.9,31.9)	22.74 (13.6,38.0)	39.41 (26.4,58.7)
Northeast	10.35 (8.2,13.0)	2.48 (1.4,4.3)	6.49 (4.4,9.5)	14.03 (11.0,17.9)	24.64 (19.1,31.7)	32.84 (25.3,42.6)	38.84 (29.6,51.0)	52.54 (37.1,74.4)
South	10.51 (7.9,14.0)	2.57 (1.6,4.1)	6.36 (4.3,9.4)	13.61 (10.0,18.5)	24.35 (18.1,32.7)	34.28 (25.2,46.5)	42.02 (30.4,58.1)	61.89 (43.6,87.9)
West	8.59 (6.0,12.2)	2.01 (1.1,3.8)	4.84 (2.7,8.7)	10.39 (6.6,16.4)	20.12 (14.3,28.3)	29.63 (20.3,43.2)	36.98 (24.7,55.4)	60.44 (33.1,110.2)
<b>Coastal Status</b>								
Noncoastal	7.47 (5.5,10.1)	1.63 (0.9,2.8)	4.24 (2.6,7.0)	9.53 (6.8,13.4)	17.83 (13.4,23.8)	25.64 (19.3,34.1)	31.68 (23.1,43.5)	47.34 (32.0,70.0)
Coastal	10.77 (7.9,14.6)	2.59 (1.4,4.9)	6.23 (3.6,10.9)	13.67 (9.5,19.6)	25.09 (18.8,33.5)	35.64 (27.0,47.1)	44.97 (33.5,60.3)	67.62 (46.7,97.9)
<b>Coastal/Inland Region</b>								
Pacific	9.20 (5.8,14.6)	2.18 (1.0,4.8)	5.19 (2.5,10.7)	11.30 (6.6,19.2)	21.73 (14.1,33.5)	31.66 (20.5,49.0)	39.32 (25.0,61.9)	61.40 (34.9,107.9)
Atlantic	10.17 (6.2,16.8)	2.95 (1.2,7.2)	6.66 (3.1,14.3)	13.50 (7.8,23.4)	23.50 (15.7,35.1)	31.21 (21.1,46.1)	37.43 (25.9,54.1)	51.57 (35.0,76.0)
Gulf of Mexico	18.89 (12.5,28.6)	5.47 (2.3,12.9)	13.29 (7.3,24.4)	24.59 (15.2,39.7)	42.50 (29.3,61.7)	59.13 (42.1,83.1)	67.01 (47.1,95.3)	95.98 (65.5,140.6)
Great Lakes	8.10 (5.4,12.1)	1.59 (0.7,3.5)	4.07 (2.2,7.5)	8.65 (5.3,14.2)	17.69 (11.9,26.2)	27.18 (16.4,45.1)	38.56 (17.7,83.9)	79.58 (15.8,400.6)
Inland Northeast	10.07 (6.6,15.3)	1.98 (0.9,4.2)	6.05 (3.7,9.9)	13.62 (8.7,21.4)	25.06 (14.7,42.8)	33.53 (19.9,56.6)	38.93 (24.1,62.8)	54.57 (33.4,89.2)
Inland Midwest	4.81 (2.5,9.3)	1.14 (0.5,2.4)	2.88 (1.4,5.9)	6.09 (3.0,12.5)	11.15 (5.5,22.8)	15.55 (7.5,32.4)	19.63 (10.0,38.5)	27.89 (13.4,58.2)
Inland South	8.67 (6.6,11.5)	2.12 (1.4,3.2)	5.42 (3.9,7.5)	11.44 (8.6,15.2)	20.33 (15.1,27.3)	27.77 (20.3,38.0)	33.55 (23.9,47.1)	49.59 (32.7,75.3)
Inland West	7.94 (5.2,12.2)	1.85 (0.9,3.8)	4.49 (2.4,8.4)	9.41 (5.4,16.4)	17.99 (11.3,28.7)	27.97 (16.8,46.5)	34.96 (19.8,61.7)	57.44 (24.9,132.6)

506  
507

Table C-21. Freshwater + estuarine fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	3.35 (2.5,4.6)	0.36 (0.2,0.6)	1.17 (0.7,1.9)	3.55 (2.4,5.3)	8.66 (6.4,11.7)	13.86 (10.4,18.5)	18.71 (14.1,24.9)	31.45 (23.0,43.0)
<b>Gender</b>								
Female	2.87 (2.0,4.1)	0.29 (0.2,0.5)	0.97 (0.6,1.6)	2.95 (1.8,4.7)	7.32 (5.1,10.5)	11.87 (8.5,16.6)	15.84 (11.0,22.7)	28.63 (19.5,42.0)
Male	3.85 (2.9,5.1)	0.45 (0.3,0.7)	1.43 (0.9,2.2)	4.26 (3.0,6.0)	9.86 (7.2,13.4)	15.69 (11.9,20.7)	21.03 (15.8,27.9)	33.58 (24.7,45.7)
<b>Age</b>								
1 to <3 yrs	2.17 (1.2,4.0)	0.21 (0.1,0.4)	0.66 (0.4,1.2)	2.08 (1.3,3.4)	5.07 (3.1,8.3)	8.78 (4.7,16.3)	13.40 (5.4,33.3)	25.24 (7.4,86.0)
3 to <6 yrs	2.37 (1.6,3.6)	0.25 (0.1,0.5)	0.86 (0.5,1.5)	2.58 (1.6,4.3)	6.04 (3.9,9.4)	9.65 (6.4,14.6)	12.80 (8.3,19.7)	21.50 (12.3,37.6)
6 to <11 yrs	3.08 (2.1,4.5)	0.36 (0.2,0.6)	1.14 (0.7,1.9)	3.35 (2.2,5.1)	7.80 (5.2,11.8)	12.90 (8.4,19.8)	16.34 (10.3,26.0)	28.29 (17.1,46.7)
11 to <16 yrs	3.55 (2.2,5.8)	0.44 (0.2,1.0)	1.33 (0.6,2.9)	4.09 (2.4,7.1)	8.96 (5.3,15.1)	13.63 (7.8,23.8)	18.66 (12.0,29.0)	32.51 (22.1,47.9)
16 to <18 yrs	3.36 (1.6,7.0)	0.30 (0.0,1.9)	1.04 (0.2,4.9)	3.19 (0.9,10.9)	8.18 (3.5,19.3)	14.00 (7.5,26.1)	19.21 (11.3,32.8)	37.96 (20.6,70.0)
18 to <21 yrs	5.37 (3.7,7.8)	0.72 (0.4,1.4)	2.32 (1.4,3.9)	6.48 (4.2,10.1)	14.16 (9.6,21.0)	20.81 (13.9,31.2)	27.64 (18.4,41.4)	40.11 (24.7,65.1)
<b>Income</b>								
<\$20,000	3.96 (3.1,5.1)	0.46 (0.3,0.7)	1.40 (0.9,2.1)	4.23 (3.0,5.9)	10.06 (7.5,13.4)	16.47 (12.2,22.3)	22.71 (15.2,33.9)	37.26 (23.9,58.0)
>\$20,000	3.11 (2.1,4.5)	0.33 (0.2,0.6)	1.10 (0.6,1.9)	3.34 (2.1,5.2)	8.02 (5.6,11.6)	12.87 (9.2,18.1)	17.14 (12.2,24.1)	30.04 (21.5,41.9)
Income unknown	5.61 (2.5,12.4)	0.54 (0.3,1.1)	1.79 (0.9,3.7)	6.98 (2.0,24.8)	15.84 (5.5,46.0)	24.20 (9.9,59.2)	29.96 (13.9,64.4)	41.20 (19.6,86.5)
<b>Income, finer detail</b>								
<\$20,000	3.96 (3.1,5.1)	0.46 (0.3,0.7)	1.40 (0.9,2.1)	4.23 (3.0,5.9)	10.06 (7.5,13.4)	16.47 (12.2,22.3)	22.71 (15.2,33.9)	37.26 (23.9,58.0)
\$20k-\$45k	3.16 (2.2,4.6)	0.34 (0.2,0.7)	1.14 (0.7,1.9)	3.39 (2.2,5.2)	8.01 (5.3,12.1)	12.96 (8.8,19.1)	17.74 (12.5,25.1)	30.85 (20.5,46.5)
\$45k-\$75k	2.59 (1.6,4.3)	0.28 (0.2,0.5)	0.92 (0.5,1.7)	2.71 (1.4,5.2)	6.69 (3.8,11.7)	10.72 (6.5,17.6)	13.82 (7.7,24.7)	24.20 (15.6,37.5)
\$75k+	3.35 (2.3,4.9)	0.36 (0.2,0.7)	1.18 (0.7,2.1)	3.57 (2.2,5.8)	8.61 (5.9,12.6)	14.33 (10.3,19.9)	18.32 (12.5,26.9)	31.95 (21.2,48.2)
>\$20,000	3.93 (2.1,7.2)	0.50 (0.2,1.3)	1.94 (0.8,4.6)	5.21 (2.2,12.2)	9.55 (5.1,17.8)	12.47 (6.8,23.0)	19.54 (9.2,41.4)	27.63 (13.3,57.4)
Inc Ref/DK	4.91 (2.4,10.0)	0.50 (0.2,1.2)	1.70 (0.8,3.6)	5.82 (2.2,15.4)	13.14 (5.5,31.7)	20.13 (9.0,44.9)	27.76 (11.2,68.7)	43.48 (17.8,106.0)
Inc missing	6.57 (1.5,29.4)	0.61 (0.2,2.4)	1.91 (0.5,7.0)	8.86 (1.0,78.6)	20.35 (2.7,151.1)	28.83 (5.8,143.4)	33.89 (8.7,132.0)	40.86 (11.0,152.4)
<b>Race/Ethnicity</b>								
Mexican American	3.50 (2.2,5.5)	0.50 (0.3,0.9)	1.39 (0.8,2.5)	3.94 (2.5,6.3)	8.53 (5.3,13.8)	13.63 (8.8,21.2)	18.33 (11.7,28.7)	28.61 (15.6,52.5)
Other Hispanic	2.59 (0.8,8.2)	0.31 (0.1,0.8)	0.90 (0.3,2.7)	2.61 (0.8,8.8)	6.59 (2.0,22.1)	10.46 (2.9,37.5)	15.29 (5.0,46.9)	23.74 (6.4,87.5)
White	2.40 (1.6,3.5)	0.26 (0.1,0.5)	0.82 (0.5,1.5)	2.50 (1.5,4.1)	5.97 (3.9,9.0)	9.98 (6.9,14.5)	13.50 (9.1,19.9)	23.23 (14.6,37.0)
Black	5.22 (3.0,9.1)	0.89 (0.5,1.7)	2.59 (1.4,4.7)	6.46 (3.5,11.9)	12.80 (6.9,23.7)	19.42 (11.6,32.6)	24.74 (15.3,40.1)	35.77 (20.0,64.0)
Other race	7.59 (3.9,14.8)	0.86 (0.4,1.7)	3.08 (1.7,5.6)	9.14 (4.8,17.3)	20.34 (9.4,44.2)	31.95 (12.0,84.9)	39.53 (15.7,99.7)	53.26 (26.4,107.6)

510  
511

**Table C-21. Freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.73 (1.6,4.7)	0.24 (0.1,0.5)	0.74 (0.3,1.6)	2.47 (1.4,4.4)	7.10 (4.2,12.1)	12.54 (7.2,21.8)	17.46 (10.1,30.1)	30.30 (17.6,52.2)
Northeast	3.18 (2.0,5.0)	0.29 (0.1,1.0)	1.04 (0.4,2.7)	3.35 (1.7,6.6)	7.98 (4.7,13.5)	13.27 (9.2,19.1)	17.78 (12.8,24.7)	32.28 (20.0,52.2)
South	3.89 (2.6,5.9)	0.54 (0.3,0.9)	1.66 (1.0,2.7)	4.50 (2.9,7.1)	9.89 (6.4,15.2)	14.86 (9.5,23.3)	19.79 (12.6,31.0)	31.18 (19.0,51.1)
West	3.34 (2.1,5.2)	0.36 (0.2,0.7)	1.19 (0.7,2.1)	3.47 (2.1,5.7)	8.24 (5.2,13.2)	13.61 (8.6,21.6)	18.83 (11.1,31.9)	33.41 (17.1,65.2)
<b>Coastal Status</b>								
Noncoastal	2.77 (2.0,3.8)	0.31 (0.2,0.6)	0.99 (0.6,1.7)	2.95 (1.9,4.5)	6.97 (4.9,9.9)	11.33 (8.4,15.3)	15.09 (11.1,20.6)	26.20 (18.2,37.8)
Coastal	4.29 (2.8,6.5)	0.48 (0.3,0.8)	1.56 (0.9,2.7)	4.73 (2.8,8.0)	11.04 (6.9,17.6)	17.36 (11.3,26.6)	24.20 (17.2,34.1)	38.41 (25.9,56.9)
<b>Coastal/Inland Region</b>								
Pacific	4.26 (2.6,7.0)	0.39 (0.2,0.8)	1.31 (0.7,2.4)	4.37 (2.7,7.1)	11.26 (6.6,19.1)	18.77 (10.0,35.3)	26.19 (12.2,56.4)	42.40 (17.3,104.1)
Atlantic	3.68 (1.8,7.4)	0.53 (0.2,1.3)	1.62 (0.6,4.1)	4.40 (1.9,10.1)	9.37 (4.7,18.6)	13.63 (6.8,27.3)	17.78 (9.6,32.8)	28.13 (16.8,47.2)
Gulf of Mexico	6.54 (1.9,22.0)	1.08 (0.2,4.9)	3.24 (0.7,14.8)	8.10 (2.0,32.4)	15.96 (4.7,53.8)	26.29 (7.9,87.6)	31.16 (10.7,90.6)	41.94 (16.1,109.2)
Great Lakes	3.56 (1.5,8.4)	0.26 (0.1,0.8)	0.88 (0.3,3.0)	3.02 (0.8,11.1)	9.52 (3.6,25.1)	17.36 (8.6,35.2)	23.27 (12.1,44.7)	37.67 (19.0,74.7)
Inland Northeast	2.43 (1.0,6.1)	0.20 (0.0,1.3)	0.70 (0.1,3.9)	2.19 (0.5,10.4)	5.95 (2.1,17.2)	10.63 (5.3,21.5)	15.09 (8.6,26.5)	32.28 (16.8,62.0)
Inland Midwest	2.45 (1.5,4.1)	0.24 (0.1,0.5)	0.69 (0.4,1.3)	2.26 (1.4,3.6)	6.28 (3.6,11.0)	10.99 (5.4,22.2)	14.83 (7.2,30.5)	26.28 (11.8,58.4)
Inland South	3.36 (2.3,4.8)	0.45 (0.3,0.8)	1.40 (0.9,2.2)	3.85 (2.6,5.7)	8.50 (5.9,12.2)	12.83 (8.8,18.7)	16.93 (11.5,25.0)	26.88 (16.9,42.7)
Inland West	2.57 (1.3,5.3)	0.35 (0.1,0.8)	1.11 (0.5,2.3)	2.91 (1.4,6.1)	6.27 (2.9,13.4)	9.44 (4.2,21.1)	13.04 (6.4,26.7)	21.36 (9.4,48.5)

512  
513

514  
515

**Table C-22. Marine + freshwater fish usual fish consumption rate estimates, all ages**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	12.31 (9.8,15.5)	3.00 (1.6,5.5)	8.72 (5.9,12.9)	17.43 (13.5,22.5)	28.41 (23.0,35.1)	36.79 (29.5,45.9)	42.90 (33.9,54.3)	55.96 (42.4,73.9)
<b>Gender</b>								
Female	11.13 (8.6,14.4)	2.70 (1.5,5.0)	7.98 (5.3,12.1)	16.06 (11.9,21.7)	25.93 (20.6,32.7)	33.16 (26.3,41.9)	38.08 (29.7,48.8)	49.06 (36.8,65.3)
Male	13.73 (11.0,17.2)	3.44 (1.9,6.4)	9.73 (6.7,14.1)	19.32 (15.2,24.6)	31.57 (25.5,39.1)	40.96 (32.7,51.4)	47.95 (37.9,60.6)	63.67 (49.5,81.8)
<b>Age</b>								
1 to <3 yrs	3.88 (2.3,6.4)	0.62 (0.3,1.3)	1.89 (1.0,3.8)	4.62 (2.8,7.7)	9.70 (5.9,16.1)	15.16 (8.3,27.6)	19.56 (10.2,37.4)	27.65 (16.2,47.1)
3 to <6 yrs	5.23 (2.8,9.9)	0.99 (0.3,3.0)	3.28 (1.1,9.5)	7.21 (3.2,16.1)	12.48 (7.2,21.6)	16.70 (11.1,25.1)	20.52 (13.5,31.1)	28.27 (19.1,41.7)
6 to <11 yrs	6.78 (3.6,12.8)	1.20 (0.5,2.8)	3.74 (1.8,7.9)	9.21 (4.7,18.0)	17.13 (8.9,32.9)	24.30 (12.0,49.0)	28.32 (15.0,53.4)	36.79 (19.9,67.9)
11 to <16 yrs	5.88 (4.0,8.6)	1.11 (0.6,2.0)	3.25 (1.9,5.6)	7.94 (5.2,12.0)	14.92 (10.0,22.3)	19.74 (12.8,30.5)	24.03 (15.3,37.7)	33.67 (19.9,56.9)
16 to <18 yrs	7.66 (4.8,12.1)	1.20 (0.7,2.1)	4.04 (2.2,7.5)	10.54 (6.3,17.8)	20.27 (12.0,34.3)	26.45 (17.2,40.7)	32.38 (20.8,50.4)	42.68 (27.9,65.2)
18 to <21 yrs	10.91 (6.5,18.5)	1.75 (1.0,3.2)	5.44 (3.2,9.3)	13.47 (8.5,21.3)	27.91 (16.1,48.5)	38.66 (22.6,66.0)	49.01 (27.3,88.1)	81.88 (29.7,225.5)
21 to <35 yrs	12.06 (8.3,17.6)	3.50 (1.4,8.6)	8.72 (4.7,16.2)	16.54 (10.9,25.1)	26.97 (20.0,36.4)	34.87 (27.1,44.9)	40.82 (32.1,51.9)	56.48 (42.7,74.7)
35 to <50 yrs	13.54 (10.8,17.0)	5.31 (3.5,8.1)	10.89 (8.4,14.1)	18.78 (15.0,23.4)	28.24 (20.8,38.4)	35.60 (25.1,50.4)	40.74 (27.6,60.1)	50.39 (29.4,86.3)
50 to <65 yrs	19.61 (13.6,28.3)	8.58 (4.4,16.6)	16.40 (10.2,26.5)	26.99 (18.8,38.7)	39.58 (29.1,53.8)	49.51 (36.1,67.9)	55.11 (41.5,73.2)	68.16 (49.8,93.2)
65+ yrs	13.85 (9.9,19.5)	5.18 (3.6,7.5)	11.03 (8.1,15.1)	19.26 (13.8,26.9)	29.18 (19.6,43.4)	36.53 (23.4,56.9)	42.99 (28.6,64.6)	53.30 (31.6,90.0)
<b>Income</b>								
<\$20,000	10.10 (8.0,12.7)	2.04 (1.2,3.4)	6.50 (4.6,9.2)	14.03 (10.9,18.0)	23.87 (18.9,30.1)	31.92 (25.0,40.7)	37.93 (29.6,48.6)	51.53 (39.0,68.1)
>\$20,000	12.69 (10.1,16.0)	3.27 (1.8,6.0)	9.13 (6.2,13.4)	17.95 (14.0,23.0)	29.13 (23.5,36.1)	37.37 (29.8,46.9)	43.44 (34.0,55.6)	56.54 (42.3,75.5)
Income unknown	13.55 (7.2,25.6)	3.29 (0.9,11.5)	9.92 (3.4,28.6)	20.15 (9.0,45.1)	30.05 (19.7,45.9)	39.58 (26.4,59.3)	45.85 (32.3,65.1)	60.47 (41.2,88.8)
<b>Income, finer detail</b>								
<\$20,000	10.10 (8.0,12.7)	2.04 (1.2,3.4)	6.50 (4.6,9.2)	14.03 (10.9,18.0)	23.87 (18.9,30.1)	31.92 (25.0,40.7)	37.93 (29.6,48.6)	51.53 (39.0,68.1)
\$20k-\$45k	11.21 (8.8,14.4)	2.64 (1.5,4.7)	7.84 (5.1,12.0)	15.69 (12.0,20.6)	25.62 (20.6,31.9)	33.52 (26.7,42.1)	39.41 (30.8,50.4)	53.91 (40.6,71.5)
\$45k-\$75k	12.22 (9.3,16.1)	3.00 (1.8,5.1)	8.57 (5.9,12.4)	17.10 (12.7,23.0)	28.23 (21.1,37.7)	37.30 (28.3,49.2)	44.42 (33.6,58.7)	57.58 (42.4,78.2)
\$75k+	14.24 (11.3,18.0)	4.13 (2.1,8.2)	10.79 (7.3,15.9)	20.49 (15.9,26.5)	31.89 (25.7,39.6)	39.78 (31.1,50.9)	45.93 (35.4,59.6)	58.01 (41.8,80.6)
>\$20,000	12.62 (7.1,22.6)	3.82 (1.4,10.3)	9.55 (4.4,20.8)	17.51 (9.8,31.3)	28.63 (16.3,50.4)	36.54 (21.7,61.6)	41.54 (25.2,68.6)	56.11 (32.9,95.7)
Inc Ref/DK	13.49 (7.5,24.2)	3.39 (1.1,10.1)	10.34 (3.8,28.5)	20.41 (9.7,43.0)	28.69 (20.0,41.0)	36.28 (26.0,50.6)	43.41 (30.5,61.9)	58.01 (37.7,89.3)
Inc missing	13.65 (5.1,36.9)	2.95 (0.5,15.9)	9.43 (2.2,40.5)	19.31 (6.0,61.9)	32.75 (12.4,86.8)	43.91 (18.4,104.8)	50.61 (23.7,108.1)	61.26 (32.6,115.2)
<b>Race/Ethnicity</b>								
Mexican American	9.94 (7.0,14.0)	1.95 (1.1,3.5)	6.41 (3.8,10.8)	14.07 (9.5,20.9)	23.81 (17.4,32.5)	31.63 (23.5,42.6)	37.66 (28.3,50.0)	48.50 (35.9,65.5)
Other Hispanic	10.12 (7.5,13.6)	1.93 (1.2,3.2)	6.79 (4.4,10.4)	14.52 (10.5,20.1)	24.91 (18.3,33.8)	31.95 (23.8,42.8)	36.53 (26.5,50.4)	46.27 (28.5,75.2)
White	12.01 (9.6,15.1)	3.07 (1.6,5.9)	8.61 (6.0,12.3)	16.93 (13.4,21.4)	27.54 (21.8,34.8)	35.67 (27.7,46.0)	41.52 (31.5,54.7)	54.62 (40.5,73.7)
Black	12.79 (10.0,16.4)	3.40 (2.1,5.5)	9.43 (6.2,14.3)	18.24 (13.7,24.2)	29.37 (23.5,36.7)	36.87 (29.8,45.6)	42.45 (33.6,53.7)	53.48 (39.2,72.9)
Other race	19.88 (13.9,28.5)	6.30 (2.4,16.8)	16.38 (7.9,33.8)	27.71 (19.7,39.0)	42.01 (33.1,53.4)	52.80 (41.1,67.8)	64.73 (48.2,87.0)	84.67 (61.6,116.3)

516  
517

Table C-22. Marine + freshwater fish usual fish consumption rate estimates, all ages (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	9.67 (7.2,13.0)	2.20 (1.1,4.3)	6.74 (4.2,10.7)	13.68 (9.9,19.0)	22.50 (16.7,30.4)	29.58 (21.5,40.8)	34.81 (24.7,49.0)	46.35 (31.4,68.5)
Northeast	14.74 (11.2,19.3)	3.46 (2.1,5.8)	10.45 (7.6,14.4)	21.59 (15.9,29.3)	34.38 (26.2,45.2)	43.84 (33.0,58.1)	50.52 (38.1,67.0)	65.18 (48.5,87.7)
South	12.42 (9.5,16.2)	3.10 (1.7,5.8)	8.85 (5.6,13.9)	17.24 (13.0,22.8)	28.50 (22.4,36.3)	36.62 (29.2,46.0)	43.02 (33.9,54.6)	58.21 (45.0,75.3)
West	13.31 (10.1,17.5)	3.66 (1.9,7.2)	10.01 (6.7,15.0)	19.35 (14.0,26.7)	29.79 (23.2,38.2)	37.85 (29.2,49.1)	43.81 (33.5,57.3)	53.91 (37.2,78.1)
<b>Coastal Status</b>								
Noncoastal	11.94 (8.5,16.8)	2.84 (1.4,5.7)	8.43 (5.1,14.1)	16.82 (11.8,24.1)	27.60 (20.6,37.0)	35.75 (27.1,47.2)	41.76 (31.7,55.0)	54.93 (41.3,73.0)
Coastal	12.90 (10.2,16.3)	3.27 (2.1,5.1)	9.13 (7.0,11.9)	18.42 (14.6,23.3)	29.76 (22.5,39.4)	38.14 (27.5,53.0)	44.25 (31.0,63.2)	58.18 (39.6,85.6)
<b>Coastal/Inland Region</b>								
Pacific	12.88 (10.1,16.5)	3.16 (2.0,5.0)	9.48 (7.0,12.8)	18.91 (14.9,24.0)	29.59 (22.4,39.1)	37.61 (27.2,52.1)	42.64 (28.7,63.3)	52.78 (31.5,88.4)
Atlantic	13.36 (8.8,20.3)	3.88 (2.5,6.0)	9.84 (6.4,15.1)	19.03 (12.4,29.1)	30.05 (18.9,47.8)	38.22 (23.7,61.5)	44.00 (27.0,71.7)	56.42 (34.0,93.6)
Gulf of Mexico	14.68 (8.6,25.1)	3.54 (1.1,11.1)	9.62 (3.9,23.9)	20.02 (9.8,40.7)	34.27 (20.2,58.1)	49.57 (25.7,95.7)	57.37 (32.2,102.3)	79.84 (46.7,136.6)
Great Lakes	9.86 (6.4,15.1)	2.01 (1.3,3.1)	6.17 (4.0,9.4)	13.86 (9.0,21.3)	23.51 (13.7,40.3)	32.59 (21.1,50.5)	37.14 (21.6,63.8)	48.14 (25.0,92.6)
Inland Northeast	15.21 (9.4,24.6)	2.84 (1.7,4.6)	10.25 (6.3,16.7)	22.42 (13.3,37.9)	37.17 (21.5,64.3)	46.62 (28.3,76.8)	54.01 (32.9,88.8)	68.99 (43.5,109.4)
Inland Midwest	9.60 (6.5,14.2)	2.27 (1.0,5.3)	6.84 (3.7,12.5)	13.62 (8.8,21.2)	22.14 (15.7,31.3)	28.86 (20.6,40.4)	33.62 (24.1,47.0)	45.72 (31.9,65.5)
Inland South	11.67 (7.9,17.2)	2.80 (1.3,6.0)	8.53 (4.4,16.5)	16.56 (10.7,25.6)	26.81 (19.5,36.9)	34.16 (26.1,44.7)	39.42 (30.8,50.5)	50.40 (38.0,66.7)
Inland West	13.74 (8.2,23.1)	4.26 (1.4,12.9)	10.54 (5.4,20.4)	19.63 (11.4,33.7)	29.93 (19.3,46.4)	38.13 (25.0,58.3)	45.51 (28.5,72.7)	57.35 (38.0,86.6)

518  
519

DRAFT DOCUMENT

520  
521

Table C-23. Marine + freshwater fish usual fish consumption rate estimates, adults ≥21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	14.56 (11.8,18.0)	5.24 (3.0,9.0)	11.31 (8.2,15.6)	20.23 (16.2,25.3)	31.36 (25.5,38.6)	39.52 (31.4,49.7)	45.95 (36.2,58.3)	58.27 (42.9,79.2)
<b>Gender</b>								
Female	13.05 (10.3,16.6)	4.68 (2.5,8.6)	10.24 (7.1,14.7)	18.22 (14.2,23.3)	28.11 (22.5,35.2)	35.43 (27.9,45.0)	40.25 (31.0,52.3)	50.56 (36.5,70.0)
Male	16.49 (13.4,20.3)	6.12 (3.8,9.9)	12.93 (9.6,17.5)	22.85 (18.3,28.5)	35.24 (28.3,43.8)	44.57 (35.3,56.3)	51.36 (39.9,66.1)	66.18 (50.0,87.6)
<b>Age</b>								
21 to <35 yrs	12.06 (8.3,17.6)	3.50 (1.4,8.6)	8.72 (4.7,16.2)	16.54 (10.9,25.1)	26.97 (20.0,36.4)	34.87 (27.1,44.9)	40.82 (32.1,51.9)	56.48 (42.7,74.7)
35 to <50 yrs	13.54 (10.8,17.0)	5.31 (3.5,8.1)	10.89 (8.4,14.1)	18.78 (15.0,23.4)	28.24 (20.8,38.4)	35.60 (25.1,50.4)	40.74 (27.6,60.1)	50.39 (29.4,86.3)
50 to <65 yrs	19.61 (13.6,28.3)	8.58 (4.4,16.6)	16.40 (10.2,26.5)	26.99 (18.8,38.7)	39.58 (29.1,53.8)	49.51 (36.1,67.9)	55.11 (41.5,73.2)	68.16 (49.8,93.2)
65+ yrs	13.85 (9.9,19.5)	5.18 (3.6,7.5)	11.03 (8.1,15.1)	19.26 (13.8,26.9)	29.18 (19.6,43.4)	36.53 (23.4,56.9)	42.99 (28.6,64.6)	53.30 (31.6,90.0)
<b>WCA (13-49 years)</b>	10.65 (8.3,13.6)	2.79 (1.5,5.1)	7.88 (5.1,12.3)	15.25 (11.3,20.5)	24.19 (19.4,30.1)	31.01 (24.8,38.8)	35.65 (27.7,45.8)	44.62 (31.1,64.0)
<b>Income</b>								
<\$20,000	12.13 (9.6,15.4)	3.29 (1.9,5.7)	8.71 (6.3,12.0)	16.78 (13.0,21.6)	26.66 (20.9,34.0)	34.75 (26.9,45.0)	41.51 (32.2,53.5)	55.05 (40.7,74.4)
>\$20,000	14.96 (12.1,18.5)	5.62 (3.4,9.4)	11.77 (8.6,16.1)	20.75 (16.6,25.9)	31.89 (25.8,39.5)	39.95 (31.4,50.8)	46.44 (36.2,59.5)	58.63 (42.6,80.7)
Income unknown	15.77 (8.6,28.8)	5.73 (1.3,25.7)	12.53 (5.0,31.3)	22.56 (11.4,44.8)	32.33 (22.1,47.3)	43.91 (27.3,70.7)	50.52 (32.6,78.3)	64.13 (41.2,99.9)
<b>Income, finer detail</b>								
<\$20,000	12.13 (9.6,15.4)	3.29 (1.9,5.7)	8.71 (6.3,12.0)	16.78 (13.0,21.6)	26.66 (20.9,34.0)	34.75 (26.9,45.0)	41.51 (32.2,53.5)	55.05 (40.7,74.4)
\$20k-\$45k	13.07 (10.5,16.3)	4.53 (2.5,8.0)	10.12 (7.1,14.5)	17.80 (14.3,22.2)	28.12 (22.6,35.0)	36.01 (28.3,45.9)	42.04 (32.5,54.4)	54.55 (38.8,76.8)
\$45k-\$75k	14.31 (10.9,18.7)	5.01 (3.2,7.8)	10.78 (7.8,14.8)	19.85 (14.9,26.4)	31.19 (23.7,41.1)	39.47 (29.4,52.9)	46.92 (35.2,62.5)	59.45 (42.9,82.3)
\$75k+	17.01 (13.7,21.1)	7.23 (4.4,11.8)	14.11 (10.2,19.6)	23.56 (19.0,29.3)	35.03 (28.0,43.8)	42.48 (32.5,55.5)	48.47 (36.3,64.7)	60.00 (41.5,86.9)
>\$20,000	14.56 (8.4,25.2)	6.08 (2.2,16.7)	12.06 (5.7,25.3)	19.56 (11.8,32.5)	31.39 (18.1,54.5)	38.73 (23.5,63.8)	45.44 (26.6,77.7)	57.37 (34.7,94.9)
Inc Ref/DK	15.64 (8.9,27.4)	6.00 (1.4,24.9)	12.88 (5.5,30.1)	22.59 (12.0,42.6)	30.95 (21.9,43.7)	39.39 (27.5,56.4)	46.15 (32.1,66.3)	64.13 (36.7,112.1)
Inc missing	16.05 (6.0,42.9)	5.30 (0.8,37.4)	11.49 (3.4,38.5)	21.93 (7.7,62.5)	39.58 (12.0,130.7)	46.94 (20.6,107.2)	51.44 (25.3,104.6)	68.44 (32.1,145.8)
<b>Race/Ethnicity</b>								
Mexican American	13.09 (8.9,19.2)	4.18 (1.8,9.5)	10.21 (5.8,17.9)	18.19 (12.3,27.0)	28.44 (20.3,39.7)	36.67 (26.6,50.5)	41.90 (31.3,56.1)	55.31 (41.0,74.6)
Other Hispanic	13.14 (9.5,18.1)	4.71 (2.1,10.6)	10.17 (6.4,16.1)	18.49 (13.1,26.1)	28.84 (21.1,39.5)	34.99 (25.7,47.7)	40.79 (29.5,56.5)	52.13 (33.9,80.2)
White	13.80 (11.1,17.1)	5.05 (3.1,8.3)	10.73 (8.1,14.1)	19.13 (15.4,23.8)	29.70 (23.2,38.1)	37.57 (28.5,49.5)	43.92 (33.3,58.0)	55.46 (39.3,78.2)
Black	15.85 (11.9,21.0)	6.22 (3.0,12.7)	12.97 (8.0,21.0)	22.20 (16.5,29.8)	33.26 (26.6,41.5)	40.93 (32.7,51.2)	46.01 (35.6,59.5)	57.06 (41.0,79.4)
Other race	23.82 (17.4,32.6)	10.55 (5.4,20.7)	20.45 (12.2,34.3)	31.94 (23.5,43.5)	46.55 (36.5,59.4)	60.51 (44.4,82.4)	72.09 (50.9,102.1)	92.69 (65.0,132.2)

522  
523

524  
525

**Table C-23. Marine + freshwater fish usual fish consumption rate estimates, adults ≥21 years (continued)**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	11.64 (8.6,15.7)	3.98 (2.3,6.8)	8.86 (6.1,13.0)	16.01 (11.7,21.9)	25.21 (18.3,34.7)	32.30 (22.9,45.5)	37.56 (26.0,54.2)	48.62 (31.5,75.0)
Northeast	17.18 (13.4,22.0)	6.11 (3.8,9.8)	13.89 (10.3,18.7)	24.50 (19.0,31.6)	36.90 (28.7,47.4)	45.47 (34.8,59.3)	51.27 (38.1,68.9)	64.32 (45.4,91.1)
South	14.73 (11.4,19.0)	5.41 (2.7,10.7)	11.52 (7.6,17.5)	20.23 (15.5,26.4)	31.54 (24.9,39.9)	39.56 (31.3,50.0)	46.55 (36.7,59.0)	61.40 (46.2,81.7)
West	15.68 (12.0,20.5)	6.28 (3.7,10.7)	12.83 (8.8,18.6)	21.88 (16.4,29.2)	32.54 (25.4,41.7)	40.33 (30.8,52.8)	46.76 (35.7,61.3)	58.01 (42.1,80.0)
<b>Coastal Status</b>								
Noncoastal	14.10 (10.2,19.5)	5.01 (2.4,10.3)	11.01 (6.9,17.5)	19.45 (14.3,26.5)	30.32 (23.2,39.7)	38.80 (29.5,51.1)	45.03 (34.0,59.6)	57.37 (42.8,77.0)
Coastal	15.28 (11.8,19.8)	5.62 (4.0,7.8)	11.89 (9.2,15.4)	21.48 (16.8,27.5)	32.80 (24.2,44.5)	40.85 (28.3,59.0)	47.72 (33.6,67.9)	61.09 (40.4,92.4)
<b>Coastal/Inland Region</b>								
Pacific	15.19 (11.6,19.9)	5.78 (3.9,8.6)	12.16 (9.0,16.5)	21.67 (16.9,27.9)	31.99 (23.6,43.3)	39.68 (27.7,56.8)	44.99 (30.3,66.9)	54.57 (31.4,94.8)
Atlantic	15.82 (10.2,24.6)	6.38 (4.2,9.7)	12.82 (8.5,19.4)	22.21 (14.7,33.6)	33.05 (20.6,52.9)	41.19 (25.3,67.0)	47.14 (28.9,77.0)	60.45 (37.6,97.1)
Gulf of Mexico	16.90 (10.1,28.2)	5.42 (2.2,13.5)	11.78 (5.7,24.1)	22.80 (12.1,42.8)	37.30 (21.5,64.8)	53.10 (26.4,106.9)	59.88 (32.1,111.7)	74.16 (37.5,146.8)
Great Lakes	12.30 (8.0,18.9)	3.89 (2.3,6.7)	8.99 (5.8,13.8)	17.22 (11.3,26.2)	27.69 (17.5,43.7)	36.23 (23.4,56.1)	39.85 (22.0,72.1)	51.41 (27.2,97.3)
Inland Northeast	17.57 (11.2,27.5)	5.39 (2.7,10.7)	14.08 (8.1,24.5)	25.36 (16.0,40.2)	38.98 (24.9,61.0)	47.93 (31.5,73.0)	54.01 (36.2,80.7)	65.91 (44.5,97.5)
Inland Midwest	11.44 (7.8,16.7)	4.01 (2.0,7.9)	8.83 (5.4,14.5)	15.71 (10.7,23.1)	24.66 (17.6,34.6)	31.30 (22.3,44.0)	36.88 (25.9,52.5)	47.55 (32.4,69.8)
Inland South	13.98 (9.4,20.9)	5.10 (2.0,13.3)	11.20 (5.9,21.2)	19.12 (13.2,27.7)	29.78 (22.0,40.4)	36.71 (28.8,46.8)	42.60 (33.2,54.7)	55.22 (41.5,73.4)
Inland West	16.21 (9.8,26.9)	6.87 (2.9,16.0)	13.29 (7.3,24.1)	22.05 (13.6,35.7)	32.97 (21.5,50.7)	42.03 (26.5,66.6)	47.88 (30.9,74.2)	59.81 (39.5,90.5)

526

Table C-24. Marine + freshwater fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	6.71 (4.5,10.0)	1.10 (0.6,2.0)	3.44 (1.9,6.3)	8.64 (5.4,13.8)	16.74 (11.6,24.2)	24.09 (16.8,34.6)	29.66 (21.3,41.3)	42.36 (30.6,58.6)
<b>Gender</b>								
Female	5.89 (3.8,9.0)	0.98 (0.5,1.9)	2.97 (1.6,5.5)	7.60 (4.7,12.2)	15.42 (9.5,25.0)	21.83 (14.2,33.6)	26.62 (17.9,39.5)	37.34 (26.3,53.0)
Male	7.57 (5.1,11.2)	1.27 (0.7,2.4)	4.07 (2.1,7.9)	9.65 (6.2,15.0)	18.19 (13.2,25.2)	26.43 (18.9,37.0)	33.30 (23.7,46.7)	47.60 (32.4,70.0)
<b>Age</b>								
1 to <3 yrs	3.88 (2.3,6.4)	0.62 (0.3,1.3)	1.89 (1.0,3.8)	4.62 (2.8,7.7)	9.70 (5.9,16.1)	15.16 (8.3,27.6)	19.56 (10.2,37.4)	27.65 (16.2,47.1)
3 to <6 yrs	5.23 (2.8,9.9)	0.99 (0.3,3.0)	3.28 (1.1,9.5)	7.21 (3.2,16.1)	12.48 (7.2,21.6)	16.70 (11.1,25.1)	20.52 (13.5,31.1)	28.27 (19.1,41.7)
6 to <11 yrs	6.78 (3.6,12.8)	1.20 (0.5,2.8)	3.74 (1.8,7.9)	9.21 (4.7,18.0)	17.13 (8.9,32.9)	24.30 (12.0,49.0)	28.32 (15.0,53.4)	36.79 (19.9,67.9)
11 to <16 yrs	5.88 (4.0,8.6)	1.11 (0.6,2.0)	3.25 (1.9,5.6)	7.94 (5.2,12.0)	14.92 (10.0,22.3)	19.74 (12.8,30.5)	24.03 (15.3,37.7)	33.67 (19.9,56.9)
16 to <18 yrs	7.66 (4.8,12.1)	1.20 (0.7,2.1)	4.04 (2.2,7.5)	10.54 (6.3,17.8)	20.27 (12.0,34.3)	26.45 (17.2,40.7)	32.38 (20.8,50.4)	42.68 (27.9,65.2)
18 to <21 yrs	10.91 (6.5,18.5)	1.75 (1.0,3.2)	5.44 (3.2,9.3)	13.47 (8.5,21.3)	27.91 (16.1,48.5)	38.66 (22.6,66.0)	49.01 (27.3,88.1)	81.88 (29.7,225.5)
<b>Income</b>								
<\$20,000	5.90 (4.5,7.8)	1.01 (0.6,1.6)	3.07 (2.1,4.5)	7.62 (5.6,10.3)	14.65 (10.6,20.3)	21.41 (15.7,29.1)	27.07 (19.8,37.0)	39.89 (28.5,55.9)
>\$20,000	6.82 (4.3,10.7)	1.12 (0.6,2.2)	3.47 (1.8,6.7)	8.79 (5.2,14.9)	16.91 (11.2,25.5)	24.20 (16.4,35.7)	29.94 (20.9,42.8)	43.47 (30.3,62.4)
Income unknown	8.47 (3.4,21.0)	1.19 (0.6,2.4)	4.50 (1.4,14.8)	11.88 (3.2,43.7)	24.46 (6.7,89.2)	30.65 (12.5,74.9)	34.11 (18.7,62.2)	45.38 (25.4,81.1)
<b>Income, finer detail</b>								
<\$20,000	5.90 (4.5,7.8)	1.01 (0.6,1.6)	3.07 (2.1,4.5)	7.62 (5.6,10.3)	14.65 (10.6,20.3)	21.41 (15.7,29.1)	27.07 (19.8,37.0)	39.89 (28.5,55.9)
\$20k-\$45k	6.56 (3.8,11.3)	1.03 (0.6,1.8)	3.16 (1.7,5.8)	8.21 (4.6,14.7)	16.36 (9.8,27.3)	23.52 (14.6,37.9)	28.73 (18.8,43.8)	43.83 (26.1,73.6)
\$45k-\$75k	6.40 (4.2,9.8)	0.97 (0.5,1.8)	3.24 (1.7,6.3)	8.39 (4.9,14.3)	16.15 (10.4,25.1)	22.49 (14.4,35.1)	27.62 (17.0,45.0)	44.70 (26.6,75.0)
\$75k+	7.33 (4.5,12.1)	1.27 (0.5,3.0)	3.84 (1.9,7.9)	9.60 (5.5,16.9)	18.11 (11.7,28.1)	26.39 (16.1,43.3)	32.14 (20.7,49.9)	43.40 (30.4,62.0)
>\$20,000	6.34 (3.5,11.3)	1.69 (0.4,7.9)	4.28 (1.8,9.9)	8.45 (4.6,15.7)	15.46 (8.1,29.7)	21.70 (10.7,43.8)	25.19 (12.1,52.2)	35.13 (15.2,81.0)
Inc Ref/DK	7.65 (2.9,20.3)	1.15 (0.5,2.5)	4.40 (1.2,15.5)	10.48 (2.9,37.5)	21.00 (5.7,78.0)	26.43 (10.2,68.5)	31.57 (14.2,70.2)	40.24 (21.2,76.2)
Inc missing	9.61 (2.8,32.8)	1.33 (0.4,5.0)	4.69 (1.1,20.8)	13.62 (2.7,69.3)	25.99 (6.2,108.6)	33.34 (11.2,99.1)	37.71 (15.2,93.5)	52.36 (19.1,143.6)
<b>Race/Ethnicity</b>								
Mexican American	5.09 (3.7,7.0)	0.88 (0.6,1.4)	2.76 (1.7,4.5)	6.54 (4.7,9.2)	12.71 (9.1,17.8)	18.16 (12.7,25.9)	22.40 (15.1,33.2)	33.09 (21.0,52.0)
Other Hispanic	4.62 (2.5,8.7)	0.64 (0.2,1.8)	2.09 (1.0,4.5)	5.99 (3.2,11.1)	11.88 (6.2,22.7)	17.09 (8.8,33.3)	21.88 (11.9,40.3)	32.99 (18.1,60.0)
White	6.75 (3.7,12.3)	1.06 (0.5,2.4)	3.30 (1.4,7.6)	8.49 (4.3,16.7)	16.70 (9.7,28.8)	24.59 (14.3,42.4)	30.45 (18.3,50.6)	44.70 (27.1,73.9)
Black	6.64 (4.8,9.2)	1.51 (1.0,2.4)	4.46 (3.0,6.7)	9.22 (6.7,12.7)	15.65 (10.8,22.7)	20.67 (13.5,31.7)	24.66 (15.6,39.1)	33.85 (20.7,55.4)
Other race	11.45 (6.4,20.6)	2.04 (0.8,4.9)	7.23 (2.7,19.2)	16.91 (7.0,41.0)	27.78 (16.8,45.8)	35.61 (25.6,49.5)	42.64 (30.2,60.2)	54.85 (37.1,81.1)

529  
530

**Table C-24. Marine + freshwater fish usual fish consumption rate estimates, youth <21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.69 (3.5,6.4)	0.84 (0.4,1.8)	2.46 (1.3,4.6)	6.24 (4.0,9.6)	11.75 (8.6,16.1)	16.75 (11.6,24.3)	19.93 (12.0,33.1)	28.06 (14.2,55.4)
Northeast	8.38 (4.3,16.3)	1.19 (0.7,1.9)	3.86 (2.5,6.0)	9.36 (6.5,13.4)	21.45 (10.1,45.3)	33.74 (12.5,91.2)	41.66 (15.4,112.9)	71.58 (17.3,297.0)
South	6.51 (4.4,9.7)	1.15 (0.6,2.1)	3.48 (2.0,6.0)	8.50 (5.5,13.2)	15.96 (10.9,23.5)	22.20 (15.6,31.6)	27.16 (19.2,38.5)	38.74 (26.9,55.8)
West	7.92 (4.2,14.9)	1.36 (0.6,3.3)	4.28 (1.7,10.7)	11.03 (4.6,26.3)	20.64 (10.2,41.6)	27.81 (15.9,48.7)	33.01 (20.3,53.6)	41.22 (24.5,69.4)
<b>Coastal Status</b>								
Noncoastal	6.61 (3.9,11.1)	1.09 (0.6,2.1)	3.40 (1.7,6.6)	8.49 (4.9,14.6)	16.45 (9.9,27.4)	23.56 (14.1,39.5)	29.09 (17.5,48.2)	41.22 (24.4,69.6)
Coastal	6.88 (5.1,9.3)	1.11 (0.6,2.0)	3.50 (2.0,6.1)	8.91 (6.0,13.3)	17.31 (13.0,23.0)	24.77 (18.8,32.7)	30.61 (23.1,40.7)	42.68 (29.6,61.5)
<b>Coastal/Inland Region</b>								
Pacific	6.87 (4.7,10.0)	0.96 (0.5,1.9)	3.28 (1.7,6.3)	9.23 (4.8,17.6)	18.11 (11.7,28.2)	25.65 (16.4,40.0)	31.98 (20.7,49.4)	41.69 (23.5,73.9)
Atlantic	6.69 (4.6,9.6)	1.33 (0.7,2.5)	3.96 (2.3,6.9)	8.97 (6.0,13.5)	16.30 (11.2,23.6)	22.82 (15.8,32.9)	27.19 (18.2,40.5)	37.22 (23.9,57.9)
Gulf of Mexico	9.80 (3.2,30.3)	1.45 (0.4,5.0)	5.00 (1.2,21.5)	12.45 (3.3,46.4)	24.42 (7.6,78.0)	33.09 (13.5,81.0)	44.60 (16.5,120.4)	81.56 (19.0,350.5)
Great Lakes	4.43 (1.8,10.7)	0.86 (0.4,1.8)	2.33 (1.4,3.9)	5.21 (2.2,12.5)	10.79 (3.3,35.2)	16.93 (5.8,49.5)	20.82 (6.9,62.9)	31.30 (10.9,90.2)
Inland Northeast	8.94 (3.6,22.2)	1.03 (0.6,1.7)	3.36 (2.0,5.6)	8.46 (5.3,13.6)	25.91 (7.2,93.8)	40.43 (8.7,188.1)	56.53 (9.1,352.7)	81.88 (12.1,555.8)
Inland Midwest	4.77 (2.9,7.8)	0.85 (0.4,2.1)	2.54 (1.1,6.0)	6.50 (3.2,13.1)	12.02 (7.6,18.9)	16.66 (11.5,24.1)	19.71 (14.5,26.8)	26.70 (18.2,39.3)
Inland South	5.78 (3.8,8.9)	1.05 (0.6,1.8)	3.11 (1.9,5.2)	7.99 (4.8,13.2)	14.40 (9.5,21.9)	19.64 (12.9,30.0)	23.48 (15.1,36.6)	33.51 (21.4,52.5)
Inland West	8.79 (3.2,23.9)	1.82 (0.5,6.8)	5.37 (1.4,21.2)	12.64 (3.8,42.5)	22.06 (8.1,60.4)	28.04 (12.2,64.7)	33.11 (15.1,72.8)	41.22 (20.4,83.2)

531  
532

Table C-25. Marine + estuarine fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	15.58 (12.2,20.0)	3.39 (1.9,5.9)	10.28 (7.0,15.1)	21.67 (16.6,28.3)	37.10 (29.8,46.2)	49.70 (39.8,62.0)	58.85 (47.3,73.2)	78.69 (62.8,98.6)
<b>Gender</b>								
Female	14.23 (10.7,18.9)	3.08 (1.8,5.4)	9.50 (6.3,14.4)	19.88 (14.8,26.7)	33.87 (26.3,43.6)	44.72 (34.9,57.4)	53.02 (41.3,68.0)	70.21 (54.6,90.2)
Male	17.21 (13.7,21.6)	3.76 (2.2,6.3)	11.34 (8.0,16.1)	23.73 (18.7,30.2)	40.72 (33.1,50.1)	55.17 (44.7,68.1)	64.97 (52.9,79.7)	87.93 (69.8,110.8)
<b>Age</b>								
1 to <3 yrs	4.24 (2.3,7.9)	0.56 (0.3,1.0)	1.90 (0.9,4.0)	4.63 (2.8,7.7)	10.56 (5.7,19.7)	16.43 (8.6,31.4)	22.70 (10.1,50.8)	33.20 (17.4,63.2)
3 to <6 yrs	5.64 (3.1,10.1)	0.97 (0.4,2.4)	3.31 (1.4,8.0)	7.55 (3.9,14.6)	13.69 (8.2,23.0)	19.25 (11.7,31.7)	23.83 (14.4,39.5)	33.07 (21.5,50.8)
6 to <11 yrs	7.89 (4.4,14.3)	1.24 (0.6,2.4)	4.11 (2.1,8.0)	9.99 (5.9,16.8)	20.15 (10.8,37.7)	28.19 (15.2,52.3)	36.35 (17.7,74.5)	49.36 (25.8,94.3)
11 to <16 yrs	7.21 (4.8,10.9)	1.19 (0.7,2.1)	3.82 (2.0,7.2)	9.35 (6.0,14.5)	17.88 (11.6,27.4)	25.97 (16.8,40.1)	32.42 (21.2,49.5)	44.69 (26.5,75.4)
16 to <18 yrs	9.12 (6.3,13.3)	1.50 (0.9,2.5)	4.77 (2.8,8.0)	12.70 (7.8,20.7)	22.98 (16.1,32.7)	32.01 (22.4,45.7)	39.62 (26.7,58.7)	53.09 (37.3,75.6)
18 to <21 yrs	14.55 (8.1,26.1)	2.24 (1.2,4.2)	7.30 (4.2,12.7)	18.69 (10.3,34.0)	37.70 (19.5,72.8)	51.84 (29.0,92.8)	65.65 (35.1,122.8)	97.94 (45.6,210.6)
21 to <35 yrs	16.61 (11.8,23.4)	4.37 (2.1,9.3)	11.43 (6.8,19.2)	22.78 (15.5,33.5)	37.54 (29.0,48.6)	49.92 (39.3,63.5)	59.44 (46.9,75.3)	82.09 (62.4,108.0)
35 to <50 yrs	18.42 (14.9,22.8)	6.70 (4.3,10.6)	14.03 (10.7,18.5)	25.14 (20.1,31.4)	39.58 (31.4,49.9)	51.36 (40.4,65.3)	60.52 (47.4,77.3)	76.94 (57.0,103.9)
50 to <65 yrs	23.14 (16.4,32.7)	8.68 (5.0,15.1)	17.54 (12.1,25.5)	31.40 (22.9,43.0)	51.51 (34.3,77.3)	63.94 (44.8,91.3)	73.67 (51.6,105.2)	92.14 (67.4,126.0)
65+ yrs	15.86 (12.0,21.0)	4.86 (3.3,7.2)	11.16 (7.9,15.7)	21.58 (15.8,29.5)	36.71 (28.5,47.3)	47.08 (35.5,62.4)	56.21 (43.3,72.9)	74.45 (57.2,97.0)
<b>Income</b>								
<\$20,000	12.45 (9.9,15.6)	2.20 (1.5,3.3)	7.59 (5.3,10.9)	16.63 (13.2,21.0)	29.81 (24.0,37.0)	41.26 (33.3,51.1)	50.13 (40.1,62.7)	69.73 (53.7,90.5)
>\$20,000	16.09 (12.6,20.6)	3.69 (2.1,6.5)	10.80 (7.4,15.7)	22.41 (17.3,29.1)	37.89 (30.5,47.0)	50.82 (40.7,63.4)	60.09 (48.1,75.0)	80.11 (63.7,100.7)
Income unknown	17.93 (9.4,34.2)	3.98 (1.1,14.0)	12.36 (4.4,34.8)	25.93 (12.3,54.8)	41.99 (25.9,67.9)	55.09 (35.2,86.3)	63.30 (43.7,91.7)	81.09 (57.8,113.7)
<b>Income, finer detail</b>								
<\$20,000	12.45 (9.9,15.6)	2.20 (1.5,3.3)	7.59 (5.3,10.9)	16.63 (13.2,21.0)	29.81 (24.0,37.0)	41.26 (33.3,51.1)	50.13 (40.1,62.7)	69.73 (53.7,90.5)
\$20k-\$45k	13.78 (10.1,18.7)	2.92 (1.6,5.2)	8.90 (5.7,13.9)	18.88 (13.6,26.2)	32.91 (24.9,43.6)	43.56 (34.0,55.9)	53.19 (40.0,70.7)	72.99 (55.0,96.9)
\$45k-\$75k	15.26 (11.6,20.1)	3.39 (2.1,5.6)	10.03 (6.9,14.6)	20.97 (15.6,28.2)	36.59 (27.9,48.0)	48.83 (37.7,63.2)	58.75 (45.3,76.1)	76.26 (57.5,101.1)
\$75k+	18.58 (14.8,23.4)	4.94 (2.6,9.4)	13.34 (9.4,19.0)	26.00 (20.7,32.7)	42.99 (34.8,53.1)	55.57 (45.2,68.3)	64.98 (52.6,80.2)	85.91 (67.9,108.8)
>\$20,000	15.93 (9.8,25.9)	4.49 (1.9,10.6)	11.62 (6.2,21.7)	22.60 (13.3,38.4)	34.61 (22.1,54.3)	43.97 (27.2,71.1)	54.36 (34.1,86.7)	77.16 (43.9,135.7)
Inc Ref/DK	17.52 (10.0,30.6)	4.22 (1.3,13.7)	12.87 (4.7,35.1)	25.80 (13.1,50.8)	40.54 (26.7,61.6)	51.25 (35.9,73.2)	58.91 (42.1,82.4)	71.40 (50.8,100.4)
Inc missing	18.70 (6.5,53.6)	3.69 (0.6,21.1)	11.25 (3.0,41.6)	25.95 (8.1,83.2)	46.37 (16.5,130.2)	60.76 (25.4,145.4)	79.38 (28.3,222.4)	101.47 (41.9,245.5)
<b>Race/Ethnicity</b>								
Mexican American	13.61 (9.8,18.9)	2.45 (1.5,4.1)	8.41 (5.1,13.8)	19.01 (13.2,27.3)	33.46 (24.1,46.4)	45.32 (32.6,63.0)	52.84 (40.2,69.4)	72.26 (53.8,97.1)
Other Hispanic	13.66 (10.2,18.4)	2.29 (1.4,3.6)	8.12 (5.6,11.7)	19.50 (13.7,27.8)	33.39 (24.9,44.8)	45.99 (33.6,63.0)	56.32 (39.0,81.4)	73.21 (54.4,98.6)
White	15.21 (11.9,19.4)	3.44 (1.8,6.5)	10.17 (6.9,15.0)	21.07 (16.3,27.2)	36.04 (28.8,45.0)	47.62 (38.1,59.5)	56.68 (45.3,71.0)	76.94 (60.6,97.7)
Black	14.72 (11.7,18.6)	3.66 (2.4,5.5)	10.18 (7.3,14.1)	20.35 (15.8,26.2)	34.39 (27.3,43.3)	45.41 (36.3,56.8)	54.39 (42.7,69.3)	69.11 (54.2,88.1)
Other race	25.84 (17.0,39.4)	7.56 (2.9,19.8)	19.41 (10.5,36.0)	36.74 (23.5,57.5)	58.37 (40.0,85.3)	71.64 (54.0,95.1)	85.57 (61.2,119.6)	111.94 (78.5,159.7)

535  
536

Table C-25. Marine + estuarine fish usual fish consumption rate estimates, all ages (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	10.68 (7.8,14.6)	2.28 (1.2,4.4)	7.12 (4.3,11.9)	14.54 (10.3,20.5)	25.19 (18.7,33.9)	33.32 (25.0,44.5)	40.23 (30.0,53.9)	56.33 (42.4,74.8)
Northeast	20.24 (15.7,26.1)	4.04 (2.9,5.7)	13.75 (10.4,18.1)	28.54 (22.5,36.2)	49.16 (36.3,66.5)	63.37 (46.9,85.7)	74.11 (54.5,100.8)	98.25 (69.8,138.4)
South	15.49 (11.7,20.5)	3.59 (2.0,6.5)	10.51 (6.9,16.1)	21.25 (15.8,28.5)	35.88 (28.3,45.5)	47.65 (37.9,59.8)	57.44 (45.1,73.2)	80.28 (59.4,108.6)
West	17.76 (13.3,23.7)	4.38 (2.4,8.1)	12.74 (8.7,18.6)	25.39 (18.5,34.9)	41.36 (31.3,54.7)	52.91 (41.4,67.6)	61.52 (48.1,78.7)	79.21 (60.7,103.4)
<b>Coastal Status</b>								
Noncoastal	14.38 (10.0,20.6)	3.04 (1.6,5.7)	9.27 (5.8,14.8)	19.69 (13.7,28.4)	34.06 (24.8,46.7)	46.33 (33.1,64.8)	55.44 (39.6,77.5)	74.33 (53.8,102.7)
Coastal	17.48 (14.3,21.3)	4.06 (2.8,5.9)	12.03 (9.4,15.4)	24.55 (19.8,30.4)	41.04 (33.2,50.8)	54.07 (43.7,66.9)	63.10 (50.6,78.6)	83.46 (66.0,105.5)
<b>Coastal/Inland Region</b>								
Pacific	17.31 (13.6,22.0)	3.58 (2.3,5.5)	12.24 (8.8,17.1)	25.12 (19.3,32.7)	41.21 (32.8,51.8)	52.61 (41.3,67.0)	61.24 (47.7,78.6)	79.10 (58.7,106.6)
Atlantic	18.52 (12.7,27.0)	4.94 (3.1,7.8)	13.31 (8.7,20.4)	25.80 (16.7,39.8)	42.27 (28.7,62.3)	55.45 (39.4,78.1)	64.50 (45.9,90.5)	85.02 (62.0,116.5)
Gulf of Mexico	20.03 (12.2,33.0)	4.79 (1.6,14.1)	13.05 (6.7,25.4)	27.45 (15.8,47.7)	45.90 (31.2,67.6)	64.85 (39.2,107.4)	76.63 (47.5,123.5)	101.53 (66.0,156.1)
Great Lakes	12.40 (8.8,17.5)	2.60 (1.6,4.3)	7.96 (5.5,11.5)	16.97 (11.4,25.2)	30.07 (21.0,43.0)	40.53 (28.7,57.3)	47.25 (31.8,70.3)	62.23 (38.8,99.7)
Inland Northeast	20.56 (13.1,32.3)	3.42 (2.1,5.5)	13.13 (8.6,20.0)	29.44 (18.8,46.1)	51.36 (29.8,88.5)	66.84 (38.3,116.8)	77.08 (45.9,129.4)	107.39 (55.6,207.4)
Inland Midwest	10.18 (6.3,16.3)	2.18 (1.0,4.9)	6.89 (3.5,13.4)	13.97 (8.5,23.0)	23.88 (15.7,36.4)	31.47 (21.5,46.1)	37.37 (26.0,53.8)	53.92 (34.3,84.7)
Inland South	13.39 (8.8,20.4)	2.94 (1.5,5.7)	9.27 (5.1,16.8)	18.53 (12.1,28.4)	30.79 (21.7,43.7)	40.50 (29.3,55.9)	48.90 (34.2,70.0)	65.26 (46.9,90.9)
Inland West	18.20 (11.4,29.0)	5.28 (1.8,15.3)	13.22 (7.7,22.8)	25.58 (16.2,40.3)	41.45 (27.0,63.7)	52.98 (35.7,78.7)	61.62 (41.8,90.9)	79.27 (54.1,116.2)

537  
538

539  
540

**Table C-26. Marine + estuarine fish usual fish consumption rate estimates, adults ≥21 years**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	17.97 (14.8,23.4)	6.01 (3.6,9.9)	13.58 (9.9,18.6)	25.35 (20.2,31.8)	41.12 (33.5,50.5)	54.38 (43.6,67.9)	63.23 (51.0,78.4)	82.82 (66.2,103.6)
<b>Gender</b>								
Female	15.90 (12.8,22.0)	5.36 (3.1,9.3)	12.36 (8.6,17.7)	23.16 (17.7,30.3)	37.34 (29.4,47.4)	48.77 (37.8,62.9)	56.93 (44.1,73.4)	73.67 (57.3,94.7)
Male	20.65 (16.9,25.8)	7.02 (4.5,11.0)	15.28 (11.6,20.1)	28.17 (22.7,35.0)	46.26 (37.9,56.5)	60.45 (49.0,74.6)	70.33 (57.1,86.7)	91.98 (73.4,115.3)
<b>Age</b>								
21 to <35 yrs	15.31 (11.8,23.4)	4.37 (2.1,9.3)	11.43 (6.8,19.2)	22.78 (15.5,33.5)	37.54 (29.0,48.6)	49.92 (39.3,63.5)	59.44 (46.9,75.3)	82.09 (62.4,108.0)
35 to <50 yrs	18.39 (14.9,22.8)	6.70 (4.3,10.6)	14.03 (10.7,18.5)	25.14 (20.1,31.4)	39.58 (31.4,49.9)	51.36 (40.4,65.3)	60.52 (47.4,77.3)	76.94 (57.0,103.9)
50 to <65 yrs	21.46 (16.4,32.7)	8.68 (5.0,15.1)	17.54 (12.1,25.5)	31.40 (22.9,43.0)	51.51 (34.3,77.3)	63.94 (44.8,91.3)	73.67 (51.6,105.2)	92.14 (67.4,126.0)
65+ yrs	16.70 (12.0,21.0)	4.86 (3.3,7.2)	11.16 (7.9,15.7)	21.58 (15.8,29.5)	36.71 (28.5,47.3)	47.08 (35.5,62.4)	56.21 (43.3,72.9)	74.45 (57.2,97.0)
<b>WCA (13-49 years)</b>	13.60 (11.0,19.3)	3.55 (2.0,6.4)	10.29 (6.6,16.1)	20.36 (15.0,27.6)	33.60 (26.4,42.7)	43.92 (34.9,55.3)	51.13 (41.4,63.1)	68.97 (53.9,88.2)
<b>Income</b>								
<\$20,000	14.64 (11.9,19.0)	3.67 (2.2,6.0)	10.42 (7.2,15.1)	20.27 (16.1,25.6)	33.54 (27.1,41.4)	45.41 (36.8,56.0)	54.62 (43.3,68.9)	75.61 (57.2,99.9)
>\$20,000	18.58 (15.3,24.1)	6.49 (4.0,10.5)	14.16 (10.4,19.2)	26.15 (20.8,32.8)	42.15 (34.2,52.0)	55.36 (44.3,69.2)	64.26 (51.8,79.8)	83.39 (66.6,104.4)
Income unknown	18.07 (11.7,36.1)	6.68 (1.7,25.7)	15.55 (6.9,35.3)	28.12 (16.8,47.0)	46.56 (28.5,76.1)	58.10 (39.1,86.2)	65.61 (47.5,90.7)	81.09 (59.1,111.3)
<b>Income, finer detail</b>								
<\$20,000	14.64 (11.9,19.0)	3.67 (2.2,6.0)	10.42 (7.2,15.1)	20.27 (16.1,25.6)	33.54 (27.1,41.4)	45.41 (36.8,56.0)	54.62 (43.3,68.9)	75.61 (57.2,99.9)
\$20k-\$45k	15.40 (12.3,21.2)	5.01 (2.8,8.8)	11.67 (7.9,17.2)	21.94 (16.7,28.8)	36.30 (28.3,46.6)	47.65 (37.3,60.9)	56.73 (43.5,74.0)	74.38 (58.5,94.5)
\$45k-\$75k	17.74 (13.8,23.8)	5.88 (3.7,9.4)	13.06 (9.3,18.4)	24.47 (18.5,32.3)	40.79 (31.1,53.5)	54.43 (41.0,72.3)	63.11 (48.3,82.4)	81.05 (61.6,106.7)
\$75k+	21.93 (18.1,27.7)	8.60 (5.9,12.6)	17.49 (13.3,23.0)	30.25 (24.6,37.2)	48.19 (39.1,59.5)	61.06 (49.2,75.8)	70.18 (56.3,87.4)	88.48 (69.6,112.5)
>\$20,000	17.49 (11.5,29.2)	7.02 (2.9,16.9)	14.55 (8.2,25.8)	25.29 (15.6,41.1)	37.29 (23.3,59.7)	49.36 (30.6,79.7)	58.04 (36.1,93.4)	83.44 (44.5,156.6)
Inc Ref/DK	18.18 (12.3,33.0)	6.73 (2.0,23.1)	15.68 (7.3,33.8)	28.24 (17.2,46.3)	44.84 (29.5,68.2)	55.09 (38.9,78.0)	60.64 (44.9,82.0)	74.05 (50.3,109.0)
Inc missing	17.82 (8.1,57.8)	5.86 (1.1,29.9)	15.00 (4.7,47.5)	28.12 (11.5,68.5)	48.60 (20.9,112.9)	63.70 (28.7,141.2)	79.38 (32.1,196.6)	122.57 (31.2,481.0)
<b>Race/Ethnicity</b>								
Mexican American	16.85 (12.5,26.7)	5.30 (2.6,10.7)	13.72 (8.3,22.7)	24.90 (17.2,36.1)	40.15 (28.7,56.2)	51.80 (37.9,70.7)	60.00 (45.2,79.7)	80.87 (58.9,111.0)
Other Hispanic	16.99 (12.7,27.2)	5.95 (2.9,12.0)	13.69 (8.7,21.6)	25.93 (17.1,39.3)	40.67 (29.1,56.8)	54.90 (36.6,82.4)	61.53 (44.7,84.7)	81.57 (58.7,113.4)
White	17.47 (14.1,22.0)	5.71 (3.6,9.1)	12.90 (9.6,17.4)	24.13 (19.3,30.2)	39.09 (31.3,48.9)	51.68 (41.4,64.5)	60.58 (48.5,75.6)	79.21 (62.3,100.7)
Black	17.59 (14.0,24.2)	6.68 (3.8,11.8)	14.06 (9.7,20.4)	25.32 (18.9,33.9)	39.95 (31.2,51.2)	51.76 (40.1,66.9)	59.46 (46.9,75.3)	72.46 (54.5,96.3)
Other race	27.63 (20.9,44.5)	11.57 (6.5,20.6)	23.88 (15.8,36.0)	41.45 (29.2,58.9)	63.61 (44.9,90.2)	80.24 (56.4,114.2)	94.04 (63.8,138.6)	121.64 (80.3,184.2)

541  
542

543  
544

Table C-26. Marine + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	12.35 (9.3,17.1)	4.07 (2.3,7.1)	9.21 (6.0,14.1)	17.11 (12.3,23.8)	28.17 (21.0,37.8)	36.67 (27.5,48.9)	43.28 (32.2,58.2)	59.46 (44.9,78.7)
Northeast	23.50 (19.0,30.4)	7.95 (5.5,11.5)	18.48 (14.3,24.0)	33.23 (26.5,41.6)	53.44 (40.8,70.0)	67.36 (51.7,87.8)	75.65 (59.1,96.8)	99.76 (74.9,132.9)
South	17.63 (14.1,24.5)	6.52 (3.4,12.6)	13.77 (9.5,19.9)	25.05 (19.2,32.7)	40.08 (32.0,50.2)	53.20 (41.8,67.7)	62.57 (49.2,79.6)	84.36 (64.2,110.9)
West	20.43 (16.0,28.1)	7.63 (5.3,11.1)	16.74 (11.8,23.7)	29.15 (22.0,38.5)	45.73 (34.6,60.4)	57.76 (44.3,75.3)	65.85 (51.0,85.0)	82.61 (62.9,108.5)
<b>Coastal Status</b>								
Noncoastal	15.99 (12.2,24.0)	5.32 (2.8,10.0)	12.31 (8.0,19.0)	23.23 (16.7,32.3)	38.05 (28.2,51.3)	51.15 (36.3,72.0)	59.72 (43.0,83.0)	77.32 (56.9,105.1)
Coastal	21.45 (17.0,25.7)	7.41 (5.4,10.3)	15.77 (12.3,20.2)	28.44 (22.5,36.0)	45.31 (36.2,56.7)	58.52 (47.0,72.9)	68.02 (54.6,84.8)	88.23 (69.4,112.2)
<b>Coastal/Inland Region</b>								
Pacific	20.74 (16.0,26.3)	7.14 (4.8,10.6)	16.28 (11.6,22.9)	28.34 (21.9,36.7)	44.45 (34.9,56.6)	56.87 (44.5,72.7)	63.94 (48.6,84.1)	81.09 (58.7,111.9)
Atlantic	24.50 (15.3,32.7)	8.74 (5.6,13.5)	17.36 (11.1,27.1)	30.08 (19.3,46.8)	47.56 (33.1,68.3)	61.01 (44.4,83.9)	70.66 (51.9,96.2)	89.17 (63.2,125.8)
Gulf of Mexico	21.47 (15.4,36.0)	7.91 (3.8,16.4)	16.42 (10.5,25.7)	32.27 (19.8,52.7)	52.27 (34.1,80.2)	70.38 (42.6,116.2)	83.23 (50.3,137.8)	107.36 (68.6,167.9)
Great Lakes	16.16 (10.6,21.1)	5.11 (3.0,8.6)	10.96 (7.4,16.2)	20.32 (14.0,29.5)	32.79 (22.3,48.1)	43.09 (29.4,63.2)	50.34 (33.9,74.8)	64.94 (40.6,103.8)
Inland Northeast	22.70 (15.5,37.6)	6.74 (3.7,12.1)	18.26 (11.3,29.5)	34.20 (22.1,52.9)	54.96 (33.7,89.7)	69.28 (42.9,112.0)	77.35 (50.9,117.7)	101.73 (65.1,158.9)
Inland Midwest	10.97 (7.8,18.6)	3.83 (2.0,7.3)	8.82 (5.1,15.2)	16.31 (10.3,25.7)	26.66 (17.7,40.3)	34.23 (23.8,49.3)	40.23 (28.1,57.6)	57.03 (37.2,87.4)
Inland South	14.25 (10.4,25.0)	5.53 (2.4,12.9)	12.21 (6.9,21.6)	21.97 (14.3,33.8)	34.40 (24.7,47.8)	44.74 (32.2,62.1)	53.39 (37.3,76.5)	69.92 (49.8,98.1)
Inland West	20.16 (13.9,34.9)	8.10 (4.8,13.8)	17.38 (10.5,28.7)	30.62 (18.9,49.7)	47.32 (29.5,75.9)	58.81 (38.6,89.6)	68.29 (44.0,106.0)	84.69 (57.8,124.0)

545

546  
547

**Table C-27. Marine + estuarine fish usual fish consumption rate estimates, youth <21 years**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	7.31 (5.4,12.1)	1.21 (0.7,2.2)	3.86 (2.2,6.9)	9.92 (6.6,15.0)	20.46 (13.8,30.4)	30.05 (20.5,44.2)	39.04 (25.3,60.3)	56.74 (39.9,80.7)
<b>Gender</b>								
Female	6.44 (4.7,11.2)	1.08 (0.6,2.0)	3.37 (1.9,5.9)	8.88 (5.9,13.4)	18.51 (12.2,28.1)	27.30 (17.6,42.3)	35.44 (21.0,59.7)	50.60 (32.6,78.6)
Male	8.21 (6.1,13.4)	1.37 (0.8,2.4)	4.39 (2.5,7.8)	11.05 (7.3,16.8)	22.65 (15.2,33.9)	33.09 (22.7,48.1)	41.92 (28.9,60.9)	65.65 (42.9,100.6)
<b>Age</b>								
1 to <3 yrs	3.57 (2.3,7.9)	0.56 (0.3,1.0)	1.90 (0.9,4.0)	4.63 (2.8,7.7)	10.56 (5.7,19.7)	16.43 (8.6,31.4)	22.70 (10.1,50.8)	33.20 (17.4,63.2)
3 to <6 yrs	4.79 (3.1,10.1)	0.97 (0.4,2.4)	3.31 (1.4,8.0)	7.55 (3.9,14.6)	13.69 (8.2,23.0)	19.25 (11.7,31.7)	23.83 (14.4,39.5)	33.07 (21.5,50.8)
6 to <11 yrs	7.04 (4.4,14.3)	1.24 (0.6,2.4)	4.11 (2.1,8.0)	9.99 (5.9,16.8)	20.15 (10.8,37.7)	28.19 (15.2,52.3)	36.35 (17.7,74.5)	49.36 (25.8,94.3)
11 to <16 yrs	7.28 (4.8,10.9)	1.19 (0.7,2.1)	3.82 (2.0,7.2)	9.35 (6.0,14.5)	17.88 (11.6,27.4)	25.97 (16.8,40.1)	32.42 (21.2,49.5)	44.69 (26.5,75.4)
16 to <18 yrs	8.26 (6.3,13.3)	1.50 (0.9,2.5)	4.77 (2.8,8.0)	12.70 (7.8,20.7)	22.98 (16.1,32.7)	32.01 (22.4,45.7)	39.62 (26.7,58.7)	53.09 (37.3,75.6)
18 to <21 yrs	12.85 (8.1,26.1)	2.24 (1.2,4.2)	7.30 (4.2,12.7)	18.69 (10.3,34.0)	37.70 (19.5,72.8)	51.84 (29.0,92.8)	65.65 (35.1,122.8)	97.94 (45.6,210.6)
<b>Income</b>								
<\$20,000	7.07 (5.4,9.3)	1.12 (0.7,1.8)	3.46 (2.4,5.0)	8.65 (6.2,12.0)	17.93 (13.1,24.5)	26.70 (19.8,36.0)	33.93 (24.9,46.2)	49.66 (37.1,66.5)
>\$20,000	7.32 (5.3,12.6)	1.23 (0.6,2.4)	3.91 (2.1,7.4)	10.06 (6.3,16.1)	20.47 (13.4,31.2)	29.78 (20.4,43.6)	38.86 (25.2,59.8)	57.04 (39.6,82.1)
Income unknown	8.25 (3.9,36.1)	1.46 (0.7,3.2)	5.45 (1.6,18.2)	14.75 (4.1,53.1)	33.70 (8.1,140.9)	44.45 (15.5,127.1)	52.62 (22.2,124.8)	74.53 (32.0,173.8)
<b>Income, finer detail</b>								
<\$20,000	7.07 (5.4,9.3)	1.12 (0.7,1.8)	3.46 (2.4,5.0)	8.65 (6.2,12.0)	17.93 (13.1,24.5)	26.70 (19.8,36.0)	33.93 (24.9,46.2)	49.66 (37.1,66.5)
\$20k-\$45k	6.52 (4.2,14.5)	1.12 (0.6,2.0)	3.43 (1.9,6.2)	9.26 (5.2,16.5)	19.15 (11.0,33.4)	28.09 (16.6,47.5)	37.73 (19.1,74.6)	59.48 (27.6,128.2)
\$45k-\$75k	7.10 (5.0,10.7)	1.05 (0.6,1.8)	3.46 (1.9,6.2)	9.03 (5.9,13.8)	18.89 (12.8,27.9)	26.64 (17.5,40.5)	33.55 (21.0,53.6)	50.70 (28.4,90.6)
\$75k+	8.08 (5.7,14.1)	1.43 (0.6,3.2)	4.56 (2.2,9.6)	11.38 (6.9,18.9)	22.99 (14.3,37.0)	33.48 (21.2,52.8)	42.68 (26.5,68.7)	61.00 (42.4,87.7)
>\$20,000	7.82 (4.8,14.2)	1.87 (0.5,6.7)	4.77 (2.6,8.7)	10.99 (6.2,19.5)	19.33 (11.2,33.4)	25.35 (13.0,49.5)	29.23 (11.1,76.6)	48.39 (19.7,119.0)
Inc Ref/DK	7.59 (3.3,32.5)	1.29 (0.6,2.7)	4.82 (1.8,12.8)	13.88 (3.5,55.6)	28.90 (6.8,122.7)	41.47 (10.5,163.5)	49.31 (14.6,166.9)	61.30 (27.4,137.1)
Inc missing	9.21 (3.3,58.2)	1.56 (0.4,6.0)	6.33 (1.0,38.9)	17.44 (3.1,98.5)	39.68 (6.4,245.6)	51.81 (13.0,207.3)	63.47 (18.0,224.2)	88.68 (28.3,278.2)
<b>Race/Ethnicity</b>								
Mexican American	6.55 (4.8,8.8)	1.08 (0.7,1.6)	3.29 (2.2,4.8)	8.39 (6.1,11.6)	16.28 (11.6,22.8)	23.57 (16.3,34.1)	29.15 (19.4,43.8)	42.89 (26.2,70.2)
Other Hispanic	5.91 (1.9,11.8)	0.73 (0.3,1.9)	2.39 (1.1,5.2)	6.09 (2.5,14.6)	12.09 (4.8,30.2)	17.41 (6.9,44.2)	22.76 (10.2,50.7)	32.11 (12.7,80.9)
White	6.75 (4.2,15.5)	1.15 (0.5,2.7)	3.60 (1.6,8.2)	9.53 (5.1,17.9)	20.53 (10.8,39.0)	30.43 (16.5,56.1)	39.96 (20.3,78.5)	60.72 (31.3,117.7)
Black	8.06 (4.8,11.1)	1.51 (1.0,2.4)	4.66 (3.2,6.8)	9.90 (6.5,15.1)	17.41 (10.9,27.9)	23.43 (13.9,39.5)	28.02 (15.8,49.7)	38.11 (19.4,74.9)
Other race	13.21 (8.7,28.8)	2.63 (1.0,6.6)	10.04 (3.5,29.0)	22.83 (9.9,52.6)	42.18 (20.2,88.2)	52.07 (34.1,79.4)	59.50 (41.1,86.1)	75.53 (46.0,123.9)

548

549  
550

Table C-27. Marine + estuarine fish usual fish consumption rate estimates, youth <21 year (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	5.53 (4.1,7.9)	0.90 (0.4,2.0)	2.66 (1.4,5.1)	7.29 (4.4,12.1)	13.90 (9.5,20.2)	20.89 (13.4,32.7)	26.81 (16.6,43.2)	42.31 (27.3,65.5)
Northeast	9.11 (5.7,18.6)	1.27 (0.9,1.9)	4.24 (3.0,6.0)	11.19 (8.3,15.1)	26.14 (14.5,47.2)	40.10 (18.1,88.8)	52.83 (20.5,136.1)	97.94 (19.0,503.8)
South	7.18 (5.2,11.1)	1.26 (0.7,2.1)	3.86 (2.4,6.3)	9.54 (6.4,14.1)	18.67 (13.0,26.9)	26.86 (18.8,38.4)	34.46 (22.9,51.9)	50.89 (33.4,77.5)
West	8.27 (5.3,18.2)	1.60 (0.6,4.2)	5.08 (2.0,13.2)	13.04 (5.7,29.6)	25.29 (12.9,49.6)	36.35 (19.3,68.6)	43.62 (25.9,73.5)	56.70 (34.5,93.1)
<b>Coastal Status</b>								
Noncoastal	6.70 (4.5,13.1)	1.15 (0.6,2.2)	3.69 (1.9,7.3)	9.34 (5.7,15.3)	18.88 (11.6,30.7)	27.43 (16.9,44.5)	35.88 (20.2,63.8)	54.33 (29.1,101.3)
Coastal	8.40 (6.6,11.7)	1.33 (0.8,2.3)	4.14 (2.7,6.4)	10.97 (7.9,15.3)	23.20 (17.0,31.7)	34.09 (25.0,46.5)	42.68 (31.3,58.2)	61.00 (44.9,82.8)
<b>Coastal/Inland Region</b>								
Pacific	8.02 (5.9,13.6)	1.08 (0.5,2.3)	3.57 (2.0,6.4)	11.07 (5.5,22.4)	25.25 (14.2,44.8)	39.68 (21.5,73.1)	45.44 (28.4,72.8)	63.40 (36.3,110.9)
Atlantic	8.42 (5.6,11.5)	1.48 (0.9,2.4)	4.47 (2.9,6.9)	10.36 (6.6,16.3)	20.15 (14.1,28.7)	28.71 (20.5,40.2)	34.54 (24.5,48.8)	47.62 (33.2,68.2)
Gulf of Mexico	10.19 (4.0,37.7)	1.99 (0.5,8.2)	6.18 (1.5,25.3)	15.86 (4.2,59.8)	30.52 (10.4,89.6)	44.50 (16.7,118.8)	55.12 (23.0,131.9)	88.07 (29.5,262.8)
Great Lakes	7.74 (3.5,13.1)	1.01 (0.5,2.0)	2.93 (1.8,4.8)	7.82 (4.0,15.4)	16.90 (6.7,42.6)	27.27 (12.8,58.1)	33.61 (15.3,73.8)	51.27 (23.5,111.7)
Inland Northeast	9.51 (5.1,24.4)	1.06 (0.5,2.2)	3.85 (2.3,6.5)	10.05 (6.2,16.2)	27.09 (13.2,55.7)	50.62 (13.0,197.4)	71.06 (13.2,381.8)	123.84 (12.9,1190.3)
Inland Midwest	4.52 (3.0,9.7)	0.86 (0.3,2.2)	2.53 (1.1,5.9)	7.17 (3.1,16.4)	13.19 (8.0,21.8)	18.98 (11.8,30.6)	24.27 (14.4,40.9)	37.96 (20.2,71.5)
Inland South	6.08 (4.2,9.6)	1.08 (0.6,1.8)	3.24 (2.0,5.2)	8.33 (5.3,13.1)	16.23 (10.5,25.2)	23.40 (14.8,36.9)	28.30 (18.3,43.7)	38.83 (26.2,57.6)
Inland West	8.46 (4.1,26.7)	2.07 (0.6,7.2)	6.61 (1.6,27.7)	14.31 (5.1,40.0)	25.47 (10.6,61.3)	33.66 (15.1,75.0)	41.02 (18.5,90.9)	52.07 (24.9,108.7)

551  
552

Table C-28. Trophic level 2 fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	3.83 (2.7,5.4)	0.52 (0.3,0.9)	1.71 (1.1,2.6)	4.54 (3.2,6.5)	9.85 (7.0,13.8)	14.70 (10.1,21.4)	18.63 (12.2,28.5)	28.56 (17.2,47.4)
<b>Gender</b>								
Female	3.28 (2.4,4.5)	0.46 (0.2,0.9)	1.49 (0.9,2.4)	3.94 (2.7,5.7)	8.35 (6.0,11.7)	12.50 (8.9,17.5)	15.72 (10.9,22.6)	23.65 (15.0,37.2)
Male	4.50 (3.0,6.7)	0.62 (0.4,1.1)	2.02 (1.3,3.1)	5.34 (3.5,8.1)	11.70 (7.9,17.4)	17.26 (11.0,27.2)	22.23 (14.2,34.8)	33.27 (19.2,57.5)
<b>Age</b>								
1 to <3 yrs	0.96 (0.5,1.9)	0.10 (0.0,0.4)	0.29 (0.1,0.8)	0.88 (0.4,2.1)	2.26 (1.1,4.5)	3.95 (2.0,7.9)	5.87 (2.6,13.1)	10.97 (4.9,24.8)
3 to <6 yrs	1.52 (0.9,2.6)	0.21 (0.1,0.7)	0.64 (0.2,1.7)	1.72 (0.8,3.6)	3.76 (2.2,6.5)	5.59 (3.5,8.9)	7.55 (4.8,12.0)	13.19 (7.7,22.5)
6 to <11 yrs	1.40 (0.7,2.7)	0.17 (0.0,0.6)	0.53 (0.2,1.7)	1.50 (0.6,3.6)	3.52 (1.7,7.2)	5.50 (3.0,10.0)	7.29 (4.0,13.4)	12.80 (6.2,26.4)
11 to <16 yrs	1.83 (0.5,7.4)	0.14 (0.1,0.3)	0.56 (0.2,1.3)	1.83 (0.7,4.9)	4.55 (1.2,17.2)	7.48 (1.4,38.8)	10.01 (1.5,67.6)	17.62 (2.3,135.5)
16 to <18 yrs	1.90 (1.1,3.3)	0.26 (0.1,0.6)	0.80 (0.4,1.7)	2.12 (1.1,4.1)	4.45 (2.2,9.0)	7.40 (4.0,13.6)	9.65 (5.2,17.9)	17.12 (9.3,31.6)
18 to <21 yrs	3.25 (1.5,6.9)	0.35 (0.1,1.0)	1.21 (0.5,3.1)	3.47 (1.6,7.3)	8.26 (4.0,16.9)	14.10 (5.8,34.3)	18.30 (7.7,43.4)	28.18 (12.3,64.7)
21 to <35 yrs	4.11 (3.0,5.7)	0.74 (0.4,1.5)	2.11 (1.3,3.5)	5.06 (3.5,7.3)	10.29 (7.3,14.5)	14.36 (10.0,20.7)	17.93 (11.9,27.1)	27.79 (17.8,43.4)
35 to <50 yrs	5.19 (3.5,7.8)	0.99 (0.5,1.9)	2.65 (1.6,4.4)	6.11 (4.0,9.2)	12.58 (7.9,20.0)	18.43 (10.8,31.6)	23.72 (13.6,41.5)	40.70 (24.5,67.7)
50 to <65 yrs	4.97 (3.1,8.1)	1.18 (0.7,2.1)	2.95 (1.8,4.9)	6.49 (4.1,10.3)	12.15 (7.7,19.3)	16.60 (9.7,28.4)	20.51 (11.9,35.4)	28.99 (15.4,54.7)
65+ yrs	4.02 (2.7,5.9)	0.58 (0.2,1.3)	1.72 (0.9,3.3)	4.76 (3.0,7.4)	10.73 (7.5,15.3)	16.36 (11.4,23.5)	20.25 (13.9,29.6)	28.91 (19.0,43.9)
<b>Income</b>								
<\$20,000	3.02 (2.0,4.5)	0.37 (0.2,0.7)	1.25 (0.8,2.0)	3.41 (2.2,5.3)	7.57 (4.9,11.6)	11.73 (7.6,18.1)	15.03 (9.2,24.5)	24.41 (15.0,39.7)
>\$20,000	3.95 (2.8,5.6)	0.56 (0.3,1.0)	1.79 (1.2,2.8)	4.73 (3.3,6.9)	10.13 (7.0,14.6)	15.09 (10.2,22.4)	19.03 (12.2,29.7)	29.26 (17.6,48.7)
Income unknown	4.76 (2.6,8.7)	0.68 (0.2,2.9)	2.32 (0.7,7.3)	6.18 (2.7,14.0)	12.63 (6.6,24.1)	17.52 (10.4,29.5)	21.20 (12.1,37.2)	28.07 (13.1,60.1)
<b>Income, finer detail</b>								
<\$20,000	3.02 (2.0,4.5)	0.37 (0.2,0.7)	1.25 (0.8,2.0)	3.41 (2.2,5.3)	7.57 (4.9,11.6)	11.73 (7.6,18.1)	15.03 (9.2,24.5)	24.41 (15.0,39.7)
\$20k-\$45k	3.65 (2.6,5.2)	0.50 (0.2,1.0)	1.60 (0.9,2.8)	4.30 (2.8,6.6)	9.32 (6.5,13.4)	14.12 (10.0,20.0)	18.17 (13.0,25.4)	27.59 (18.9,40.2)
\$45k-\$75k	3.80 (2.5,5.8)	0.52 (0.3,1.0)	1.71 (1.0,2.9)	4.56 (2.9,7.2)	9.86 (6.4,15.2)	14.33 (9.1,22.6)	17.83 (10.8,29.5)	27.74 (16.4,47.0)
\$75k+	4.31 (2.6,7.1)	0.64 (0.4,1.1)	1.99 (1.2,3.2)	5.16 (3.1,8.6)	11.15 (6.8,18.2)	16.27 (9.3,28.6)	20.64 (11.3,37.7)	31.81 (17.1,59.1)
>\$20,000	4.04 (2.1,7.8)	0.70 (0.3,1.6)	2.14 (1.0,4.8)	4.96 (2.5,9.7)	9.61 (4.9,19.0)	14.64 (7.3,29.4)	19.29 (9.5,39.2)	29.75 (14.2,62.2)
Inc Ref/DK	5.50 (3.1,9.8)	0.88 (0.3,2.9)	2.90 (1.1,7.6)	7.54 (3.3,17.0)	14.01 (7.9,25.0)	19.21 (11.1,33.4)	22.15 (11.0,44.8)	28.50 (10.2,79.7)
Inc missing	3.33 (0.9,13.1)	0.44 (0.0,3.9)	1.42 (0.2,8.5)	4.41 (0.8,24.4)	8.10 (2.3,28.4)	12.64 (3.6,44.5)	16.51 (4.4,62.4)	23.76 (8.0,70.3)
<b>Race/Ethnicity</b>								
Mexican American	4.52 (2.9,7.0)	0.59 (0.3,1.1)	2.01 (1.2,3.3)	5.42 (3.6,8.2)	11.56 (7.3,18.2)	17.60 (11.0,28.3)	22.21 (13.0,37.8)	34.15 (18.4,63.4)
Other Hispanic	4.84 (3.1,7.6)	0.40 (0.2,0.8)	1.62 (1.0,2.6)	5.18 (3.3,8.1)	13.29 (7.8,22.7)	21.22 (11.9,37.7)	27.23 (15.7,47.4)	41.98 (24.2,72.9)
White	3.43 (2.3,5.2)	0.49 (0.3,0.9)	1.55 (1.0,2.5)	4.08 (2.7,6.2)	8.78 (5.7,13.4)	13.35 (8.6,20.7)	16.69 (9.9,28.1)	24.94 (12.9,48.1)
Black	3.62 (2.4,5.4)	0.60 (0.4,1.0)	1.87 (1.2,2.8)	4.62 (3.2,6.7)	9.24 (6.3,13.6)	13.15 (8.5,20.4)	15.65 (8.6,28.5)	22.77 (11.1,46.8)
Other race	6.70 (3.3,13.4)	0.96 (0.4,2.6)	3.21 (1.2,8.3)	8.32 (3.5,20.0)	16.34 (8.6,31.1)	24.94 (12.7,49.0)	32.00 (17.0,60.1)	52.97 (25.2,111.5)

555  
556

Table C-28. Trophic level 2 fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.04 (1.0,4.0)	0.29 (0.1,0.6)	0.91 (0.5,1.6)	2.31 (1.2,4.4)	4.82 (2.3,10.3)	7.34 (3.1,17.1)	9.43 (3.7,24.3)	16.92 (6.9,41.5)
Northeast	5.70 (3.9,8.3)	0.73 (0.4,1.3)	2.69 (1.8,4.1)	7.11 (4.9,10.3)	14.55 (9.9,21.5)	21.20 (13.8,32.7)	26.14 (15.6,43.8)	42.03 (25.5,69.2)
South	4.24 (2.9,6.2)	0.71 (0.3,1.7)	2.20 (1.1,4.2)	5.27 (3.4,8.1)	10.54 (7.2,15.4)	15.25 (10.3,22.6)	18.90 (12.2,29.2)	28.16 (17.1,46.4)
West	3.91 (2.6,6.0)	0.58 (0.3,1.1)	1.81 (1.1,3.0)	4.76 (3.1,7.4)	10.30 (6.6,16.1)	14.80 (9.5,23.1)	18.72 (11.8,29.7)	27.76 (17.2,44.7)
<b>Coastal Status</b>								
Noncoastal	3.26 (2.3,4.7)	0.44 (0.2,0.8)	1.39 (0.9,2.1)	3.67 (2.5,5.3)	8.07 (5.5,11.8)	12.67 (8.5,18.8)	16.46 (10.6,25.5)	26.56 (16.1,43.9)
Coastal	4.74 (3.1,7.4)	0.73 (0.4,1.4)	2.40 (1.4,4.1)	6.06 (3.8,9.6)	12.16 (7.8,18.9)	17.07 (10.2,28.6)	21.19 (12.2,36.9)	31.20 (17.0,57.2)
<b>Coastal/Inland Region</b>								
Pacific	4.64 (2.9,7.4)	0.77 (0.3,1.8)	2.47 (1.2,4.9)	6.14 (3.5,10.8)	11.96 (7.3,19.6)	16.40 (10.4,25.9)	20.16 (12.4,32.7)	28.99 (16.7,50.3)
Atlantic	4.54 (1.9,10.7)	0.79 (0.4,1.8)	2.54 (1.2,5.4)	5.97 (2.6,13.6)	11.57 (4.9,27.1)	16.08 (6.4,40.7)	19.06 (6.7,54.2)	27.64 (9.9,76.8)
Gulf of Mexico	7.24 (4.2,12.6)	1.34 (0.3,5.5)	4.03 (1.4,11.3)	9.66 (4.6,20.3)	17.27 (10.6,28.1)	24.11 (15.4,37.7)	29.05 (18.7,45.2)	47.61 (29.4,77.2)
Great Lakes	3.04 (1.6,5.9)	0.34 (0.2,0.8)	1.08 (0.4,2.7)	3.01 (1.3,6.8)	6.81 (3.0,15.3)	11.46 (5.4,24.3)	16.37 (7.7,34.7)	36.74 (15.1,89.4)
Inland Northeast	6.31 (3.7,10.6)	0.66 (0.4,1.2)	2.65 (1.7,4.2)	7.84 (4.5,13.8)	16.18 (9.1,28.7)	24.63 (13.2,46.1)	31.46 (16.4,60.3)	47.28 (24.1,92.7)
Inland Midwest	1.76 (0.9,3.4)	0.28 (0.1,0.7)	0.87 (0.5,1.7)	2.17 (1.2,4.0)	4.34 (2.1,8.8)	6.47 (3.0,13.8)	8.10 (3.5,18.6)	13.04 (5.6,30.2)
Inland South	3.41 (2.2,5.2)	0.60 (0.2,1.8)	1.86 (0.8,4.4)	4.33 (2.6,7.3)	8.26 (5.8,11.8)	12.07 (8.5,17.1)	15.09 (10.5,21.6)	21.40 (13.3,34.5)
Inland West	3.18 (1.9,5.4)	0.46 (0.2,0.9)	1.39 (0.8,2.5)	3.50 (1.9,6.3)	8.12 (4.8,13.8)	12.70 (7.5,21.6)	16.20 (9.1,28.8)	26.40 (15.4,45.3)

557  
558

559  
560

**Table C-29. Trophic level 2 fish usual fish consumption rate estimates, adults ≥21 years**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	4.65 (3.3,6.5)	0.87 (0.5,1.4)	2.40 (1.6,3.6)	5.69 (4.0,8.0)	11.56 (8.3,16.2)	16.51 (11.1,24.5)	20.87 (13.8,31.6)	31.79 (20.1,50.4)
<b>Gender</b>								
Female	3.93 (2.9,5.4)	0.74 (0.4,1.3)	2.07 (1.3,3.2)	4.84 (3.4,6.9)	9.64 (6.9,13.4)	13.95 (9.9,19.6)	17.21 (11.8,25.1)	25.63 (16.2,40.5)
Male	5.56 (3.7,8.3)	1.07 (0.6,1.8)	2.95 (1.9,4.5)	6.96 (4.7,10.3)	13.81 (9.2,20.7)	19.84 (12.7,30.9)	24.76 (15.5,39.5)	36.83 (21.9,61.9)
<b>Age</b>								
21 to <35 yrs	4.11 (3.0,5.7)	0.74 (0.4,1.5)	2.11 (1.3,3.5)	5.06 (3.5,7.3)	10.29 (7.3,14.5)	14.36 (10.0,20.7)	17.93 (11.9,27.1)	27.79 (17.8,43.4)
35 to <50 yrs	5.19 (3.5,7.8)	0.99 (0.5,1.9)	2.65 (1.6,4.4)	6.11 (4.0,9.2)	12.58 (7.9,20.0)	18.43 (10.8,31.6)	23.72 (13.6,41.5)	40.70 (24.5,67.7)
50 to <65 yrs	4.97 (3.1,8.1)	1.18 (0.7,2.1)	2.95 (1.8,4.9)	6.49 (4.1,10.3)	12.15 (7.7,19.3)	16.60 (9.7,28.4)	20.51 (11.9,35.4)	28.99 (15.4,54.7)
65+ yrs	4.02 (2.7,5.9)	0.58 (0.2,1.3)	1.72 (0.9,3.3)	4.76 (3.0,7.4)	10.73 (7.5,15.3)	16.36 (11.4,23.5)	20.25 (13.9,29.6)	28.91 (19.0,43.9)
<b>WCA (13-49 years)</b>	3.56 (2.6,4.9)	0.56 (0.3,1.2)	1.69 (1.0,2.9)	4.28 (2.9,6.4)	8.87 (6.3,12.4)	13.18 (9.3,18.7)	16.53 (11.2,24.5)	25.53 (15.9,41.1)
<b>Income</b>								
<\$20,000	3.66 (2.4,5.5)	0.58 (0.3,1.1)	1.75 (1.1,2.9)	4.21 (2.6,6.9)	8.89 (5.7,14.0)	13.35 (8.3,21.4)	16.96 (10.1,28.5)	28.02 (18.4,42.6)
>\$20,000	4.79 (3.4,6.8)	0.93 (0.6,1.5)	2.52 (1.7,3.8)	5.88 (4.1,8.4)	11.89 (8.4,16.9)	16.92 (11.2,25.5)	21.33 (13.9,32.6)	32.50 (20.3,51.9)
Income unknown	5.52 (3.1,9.8)	1.11 (0.3,4.1)	3.37 (1.1,10.8)	7.25 (3.6,14.4)	13.88 (7.7,25.2)	18.62 (10.7,32.3)	21.86 (11.8,40.7)	29.54 (13.4,64.9)
<b>Income, finer detail</b>								
<\$20,000	3.66 (2.4,5.5)	0.58 (0.3,1.1)	1.75 (1.1,2.9)	4.21 (2.6,6.9)	8.89 (5.7,14.0)	13.35 (8.3,21.4)	16.96 (10.1,28.5)	28.02 (18.4,42.6)
\$20k-\$45k	4.41 (3.1,6.2)	0.79 (0.4,1.4)	2.22 (1.3,3.7)	5.32 (3.6,7.9)	10.95 (7.7,15.6)	15.94 (11.4,22.3)	20.52 (14.6,28.9)	30.26 (20.5,44.7)
\$45k-\$75k	4.61 (3.0,7.0)	0.86 (0.5,1.6)	2.42 (1.4,4.1)	5.73 (3.6,9.1)	11.21 (7.3,17.3)	16.05 (10.2,25.4)	19.88 (12.2,32.5)	30.88 (18.7,51.0)
\$75k+	5.25 (3.2,8.6)	1.10 (0.6,1.9)	2.82 (1.7,4.6)	6.53 (4.0,10.6)	12.94 (8.0,21.0)	18.22 (10.3,32.3)	22.88 (12.6,41.5)	35.24 (20.1,61.8)
>\$20,000	4.66 (2.4,9.0)	0.93 (0.4,2.1)	2.58 (1.3,5.3)	5.59 (2.8,11.0)	11.34 (5.7,22.7)	17.15 (8.5,34.7)	21.99 (10.1,48.0)	31.47 (14.9,66.6)
Inc Ref/DK	6.16 (3.5,10.8)	1.34 (0.5,3.7)	3.83 (1.5,9.8)	8.74 (4.0,19.1)	15.37 (8.5,27.9)	20.83 (11.6,37.5)	22.15 (9.9,49.4)	28.50 (9.4,86.6)
Inc missing	4.07 (1.0,16.3)	0.75 (0.1,7.3)	2.32 (0.3,16.6)	5.42 (1.1,27.5)	8.57 (2.8,25.8)	14.07 (3.9,50.7)	17.52 (5.1,60.3)	31.15 (6.4,151.5)
<b>Race/Ethnicity</b>								
Mexican American	6.25 (4.1,9.5)	1.32 (0.7,2.4)	3.53 (2.2,5.6)	7.78 (5.1,11.9)	15.01 (9.6,23.5)	21.32 (12.9,35.3)	26.65 (15.6,45.4)	40.14 (22.3,72.2)
Other Hispanic	6.75 (4.0,11.3)	1.04 (0.5,2.4)	3.16 (1.7,5.7)	7.78 (4.7,12.9)	17.45 (9.8,31.0)	25.76 (14.5,45.8)	33.70 (18.7,60.8)	47.87 (26.0,88.2)
White	4.06 (2.7,6.2)	0.77 (0.5,1.3)	2.10 (1.4,3.2)	4.96 (3.3,7.5)	10.20 (6.7,15.4)	14.87 (9.5,23.3)	18.19 (10.6,31.2)	26.70 (13.9,51.4)
Black	4.56 (3.2,6.5)	1.01 (0.6,1.7)	2.70 (1.8,4.1)	6.07 (4.3,8.5)	10.94 (7.6,15.7)	14.75 (9.2,23.7)	18.20 (11.2,29.5)	26.03 (14.8,45.7)
Other race	7.79 (4.1,14.8)	1.59 (0.6,4.2)	4.21 (1.8,9.7)	9.68 (4.5,20.6)	17.95 (10.2,31.5)	27.23 (14.8,50.0)	36.64 (18.2,73.7)	57.07 (26.7,122.0)

561  
562

563  
564

Table C-29. Trophic level 2 fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.29 (1.2,4.3)	0.46 (0.2,0.9)	1.18 (0.6,2.2)	2.67 (1.4,5.2)	5.24 (2.5,11.1)	7.69 (3.5,17.1)	9.80 (4.3,22.3)	16.74 (8.2,34.1)
Northeast	7.16 (4.9,10.5)	1.55 (0.9,2.7)	4.00 (2.6,6.1)	9.29 (6.4,13.5)	16.85 (10.8,26.3)	23.80 (14.4,39.3)	30.18 (18.3,49.8)	45.42 (26.1,79.1)
South	5.22 (3.6,7.6)	1.24 (0.5,2.9)	3.11 (1.7,5.7)	6.66 (4.4,10.1)	12.32 (8.4,18.0)	17.42 (11.7,25.9)	21.29 (13.7,33.1)	30.46 (17.6,52.9)
West	4.64 (3.1,7.0)	0.92 (0.5,1.6)	2.52 (1.5,4.1)	5.98 (3.9,9.3)	11.63 (7.6,17.9)	16.00 (10.1,25.3)	20.16 (12.8,31.9)	29.52 (18.4,47.5)
<b>Coastal Status</b>								
Noncoastal	4.00 (2.7,5.8)	0.71 (0.4,1.2)	1.94 (1.3,2.9)	4.60 (3.1,6.8)	9.75 (6.7,14.3)	14.62 (9.4,22.7)	18.88 (11.9,30.0)	30.44 (18.3,50.5)
Coastal	5.66 (3.7,8.6)	1.28 (0.7,2.4)	3.32 (2.0,5.5)	7.42 (4.8,11.5)	13.66 (8.8,21.2)	18.65 (11.2,31.0)	23.08 (13.8,38.5)	33.89 (20.4,56.3)
<b>Coastal/Inland Region</b>								
Pacific	5.31 (3.3,8.5)	1.34 (0.6,3.2)	3.27 (1.7,6.4)	7.20 (4.1,12.6)	12.73 (8.0,20.2)	17.05 (10.5,27.7)	20.42 (12.1,34.4)	29.10 (16.4,51.8)
Atlantic	5.53 (2.5,12.3)	1.49 (0.7,3.1)	3.55 (1.7,7.2)	7.31 (3.3,16.0)	13.19 (5.8,30.0)	17.58 (7.0,44.3)	21.29 (8.2,55.3)	28.51 (9.6,84.6)
Gulf of Mexico	9.32 (5.5,15.7)	2.72 (0.8,9.1)	6.37 (2.5,16.2)	12.19 (6.5,22.8)	20.53 (12.9,32.6)	27.79 (18.0,42.9)	35.13 (22.5,55.0)	53.49 (31.8,89.9)
Great Lakes	3.24 (1.8,5.7)	0.51 (0.2,1.5)	1.35 (0.5,3.7)	3.39 (1.6,7.3)	6.92 (3.3,14.5)	11.08 (5.9,20.7)	15.76 (8.6,28.7)	40.29 (8.8,184.6)
Inland Northeast	8.10 (4.5,14.7)	1.46 (0.8,2.8)	4.22 (2.3,7.8)	10.42 (5.3,20.6)	19.99 (10.4,38.6)	28.50 (14.8,54.8)	36.43 (18.1,73.5)	51.65 (25.8,103.5)
Inland Midwest	2.05 (1.0,4.0)	0.45 (0.2,0.8)	1.14 (0.6,2.1)	2.56 (1.3,4.9)	4.83 (2.3,10.1)	6.97 (3.1,15.6)	8.58 (3.6,20.4)	13.55 (5.7,32.2)
Inland South	4.14 (2.8,6.2)	1.00 (0.4,2.6)	2.52 (1.2,5.2)	5.25 (3.3,8.3)	9.71 (6.8,13.9)	13.75 (9.6,19.7)	17.00 (11.7,24.6)	24.23 (15.4,38.1)
Inland West	3.91 (2.4,6.4)	0.70 (0.4,1.4)	1.83 (1.0,3.4)	4.42 (2.5,7.7)	10.14 (6.2,16.6)	14.59 (8.5,25.1)	18.88 (10.9,32.7)	29.52 (17.6,49.5)

565

Table C-30. Trophic level 2 fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	1.81 (1.1,2.9)	0.19 (0.1,0.5)	0.61 (0.3,1.2)	1.84 (1.1,3.1)	4.48 (2.9,6.9)	7.44 (4.6,11.9)	10.26 (6.1,17.1)	17.91 (9.1,35.3)
<b>Gender</b>								
Female	1.50 (1.0,2.3)	0.15 (0.1,0.4)	0.50 (0.2,1.0)	1.54 (0.9,2.7)	3.89 (2.4,6.3)	6.28 (4.1,9.7)	8.32 (5.2,13.3)	14.15 (7.7,26.1)
Male	2.13 (1.3,3.5)	0.23 (0.1,0.6)	0.74 (0.4,1.4)	2.16 (1.3,3.5)	5.14 (3.1,8.4)	8.63 (5.0,15.0)	12.43 (7.1,21.8)	20.51 (9.1,46.2)
<b>Age</b>								
1 to <3 yrs	0.96 (0.5,1.9)	0.10 (0.0,0.4)	0.29 (0.1,0.8)	0.88 (0.4,2.1)	2.26 (1.1,4.5)	3.95 (2.0,7.9)	5.87 (2.6,13.1)	10.97 (4.9,24.8)
3 to <6 yrs	1.52 (0.9,2.6)	0.21 (0.1,0.7)	0.64 (0.2,1.7)	1.72 (0.8,3.6)	3.76 (2.2,6.5)	5.59 (3.5,8.9)	7.55 (4.8,12.0)	13.19 (7.7,22.5)
6 to <11 yrs	1.40 (0.7,2.7)	0.17 (0.0,0.6)	0.53 (0.2,1.7)	1.50 (0.6,3.6)	3.52 (1.7,7.2)	5.50 (3.0,10.0)	7.29 (4.0,13.4)	12.80 (6.2,26.4)
11 to <16 yrs	1.83 (0.5,7.4)	0.14 (0.1,0.3)	0.56 (0.2,1.3)	1.83 (0.7,4.9)	4.55 (1.2,17.2)	7.48 (1.4,38.8)	10.01 (1.5,67.6)	17.62 (2.3,135.5)
16 to <18 yrs	1.90 (1.1,3.3)	0.26 (0.1,0.6)	0.80 (0.4,1.7)	2.12 (1.1,4.1)	4.45 (2.2,9.0)	7.40 (4.0,13.6)	9.65 (5.2,17.9)	17.12 (9.3,31.6)
18 to <21 yrs	3.25 (1.5,6.9)	0.35 (0.1,1.0)	1.21 (0.5,3.1)	3.47 (1.6,7.3)	8.26 (4.0,16.9)	14.10 (5.8,34.3)	18.30 (7.7,43.4)	28.18 (12.3,64.7)
<b>Income</b>								
<\$20,000	1.68 (1.1,2.6)	0.19 (0.1,0.4)	0.58 (0.3,1.0)	1.72 (1.1,2.6)	4.11 (2.7,6.3)	6.99 (4.5,10.8)	9.36 (5.8,15.1)	16.84 (10.1,28.1)
>\$20,000	1.79 (1.1,3.0)	0.18 (0.1,0.5)	0.61 (0.3,1.3)	1.83 (1.1,3.2)	4.42 (2.8,7.1)	7.27 (4.3,12.4)	9.87 (5.3,18.3)	17.77 (8.3,38.1)
Income unknown	3.03 (1.1,8.3)	0.23 (0.1,0.8)	0.81 (0.2,2.9)	3.11 (0.7,13.5)	8.93 (2.0,40.1)	13.59 (4.4,42.2)	16.69 (6.6,42.0)	27.64 (11.7,65.1)
<b>Income, finer detail</b>								
<\$20,000	1.68 (1.1,2.6)	0.19 (0.1,0.4)	0.58 (0.3,1.0)	1.72 (1.1,2.6)	4.11 (2.7,6.3)	6.99 (4.5,10.8)	9.36 (5.8,15.1)	16.84 (10.1,28.1)
\$20k-\$45k	1.74 (1.1,2.8)	0.20 (0.1,0.6)	0.61 (0.3,1.4)	1.85 (0.9,3.8)	4.38 (2.6,7.4)	7.23 (4.5,11.7)	9.40 (6.1,14.5)	15.80 (10.0,25.1)
\$45k-\$75k	1.54 (0.8,3.0)	0.16 (0.1,0.4)	0.56 (0.2,1.3)	1.58 (0.9,2.9)	3.67 (1.8,7.6)	5.87 (2.4,14.3)	7.95 (3.1,20.6)	14.64 (5.8,37.0)
\$75k+	1.97 (1.0,3.8)	0.19 (0.1,0.5)	0.62 (0.3,1.2)	1.93 (1.1,3.4)	4.80 (2.6,8.7)	8.14 (3.9,16.8)	12.06 (5.6,25.8)	21.22 (8.3,54.4)
>\$20,000	2.05 (1.0,4.3)	0.31 (0.1,1.3)	0.90 (0.4,2.2)	2.62 (0.9,7.4)	5.61 (2.0,15.4)	8.05 (3.3,19.7)	8.96 (3.7,21.7)	14.03 (5.2,37.9)
Inc Ref/DK	3.71 (1.3,10.8)	0.28 (0.1,0.9)	1.11 (0.3,4.5)	3.92 (0.9,17.5)	12.16 (2.0,72.6)	14.10 (5.4,36.8)	17.33 (6.5,46.1)	28.07 (9.4,83.7)
Inc missing	2.08 (0.4,10.2)	0.16 (0.0,0.9)	0.69 (0.1,6.8)	2.16 (0.3,16.6)	6.48 (0.7,62.2)	8.92 (1.7,46.9)	12.27 (2.5,61.2)	18.59 (4.6,75.0)
<b>Race/Ethnicity</b>								
Mexican American	1.87 (1.0,3.5)	0.24 (0.1,0.5)	0.72 (0.4,1.3)	2.04 (1.2,3.4)	4.67 (2.7,8.1)	7.33 (3.8,14.2)	9.51 (4.1,21.8)	16.62 (6.0,46.3)
Other Hispanic	1.39 (0.6,3.3)	0.13 (0.0,0.4)	0.45 (0.2,1.2)	1.17 (0.3,4.3)	3.26 (1.1,9.7)	6.40 (2.9,14.0)	9.50 (4.9,18.4)	15.17 (7.5,30.7)
White	1.55 (0.8,2.9)	0.15 (0.0,0.5)	0.51 (0.2,1.4)	1.58 (0.7,3.4)	3.88 (2.1,7.2)	6.52 (3.5,12.0)	8.61 (4.3,17.3)	15.25 (5.8,40.2)
Black	1.74 (0.7,4.0)	0.27 (0.2,0.5)	0.78 (0.5,1.3)	2.09 (1.3,3.4)	4.34 (2.1,9.1)	6.59 (2.5,17.1)	8.28 (2.5,27.1)	13.21 (2.8,61.8)
Other race	4.38 (1.5,12.6)	0.33 (0.1,0.8)	1.39 (0.5,4.0)	4.55 (1.5,13.7)	12.77 (3.1,52.8)	19.30 (5.8,64.0)	25.12 (7.7,82.2)	36.90 (15.2,89.8)

568  
569

Table C-30. Trophic level 2 fish usual fish consumption rate estimates, youth <21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.41 (0.4,4.4)	0.10 (0.0,0.3)	0.34 (0.1,0.9)	1.18 (0.5,2.7)	3.33 (1.2,9.0)	5.94 (1.6,21.9)	8.53 (1.9,38.1)	18.00 (4.0,81.5)
Northeast	1.87 (0.9,4.0)	0.20 (0.1,0.5)	0.62 (0.3,1.4)	1.88 (0.9,4.0)	4.80 (2.4,9.8)	7.98 (3.9,16.3)	11.74 (6.0,23.1)	16.30 (5.3,50.1)
South	1.74 (1.1,2.9)	0.25 (0.1,0.7)	0.73 (0.3,1.6)	2.04 (1.0,4.0)	4.40 (2.6,7.4)	6.76 (4.2,10.9)	8.49 (5.0,14.4)	14.47 (8.3,25.2)
West	2.24 (1.0,4.8)	0.22 (0.1,0.7)	0.75 (0.3,2.0)	2.23 (1.0,5.1)	5.44 (2.7,11.1)	9.55 (4.2,21.5)	14.26 (5.3,38.4)	22.52 (9.6,52.9)
<b>Coastal Status</b>								
Noncoastal	1.42 (0.9,2.3)	0.16 (0.1,0.4)	0.52 (0.2,1.2)	1.58 (0.8,3.0)	3.58 (2.2,5.8)	5.78 (3.6,9.2)	7.69 (4.8,12.3)	12.86 (7.8,21.3)
Coastal	2.43 (1.3,4.7)	0.24 (0.1,0.5)	0.77 (0.4,1.4)	2.39 (1.4,4.2)	6.07 (3.2,11.5)	10.32 (4.9,21.7)	14.64 (6.9,30.9)	24.18 (9.3,63.0)
<b>Coastal/Inland Region</b>								
Pacific	2.87 (1.0,7.9)	0.24 (0.1,0.7)	0.81 (0.3,2.1)	2.64 (1.1,6.4)	7.49 (2.7,20.9)	14.50 (3.7,57.4)	19.13 (5.1,71.2)	28.39 (9.0,89.4)
Atlantic	1.88 (0.6,6.1)	0.24 (0.1,0.5)	0.71 (0.3,1.7)	2.00 (0.8,5.1)	4.61 (1.4,15.6)	7.54 (2.0,29.1)	10.60 (2.8,40.2)	15.43 (2.7,87.0)
Gulf of Mexico	2.67 (1.1,6.6)	0.41 (0.1,1.9)	1.23 (0.3,5.2)	3.26 (0.9,11.3)	6.89 (2.6,18.6)	9.76 (4.6,20.7)	13.21 (6.6,26.3)	18.48 (10.2,33.5)
Great Lakes	2.62 (0.7,9.9)	0.15 (0.1,0.4)	0.52 (0.2,1.2)	1.94 (0.6,6.6)	6.53 (1.5,28.9)	11.70 (2.2,62.7)	18.31 (4.2,79.6)	29.49 (6.0,145.8)
Inland Northeast	1.55 (0.7,3.6)	0.16 (0.0,0.6)	0.50 (0.1,1.8)	1.51 (0.5,4.7)	4.27 (1.9,9.4)	6.61 (3.1,14.2)	9.36 (4.7,18.7)	13.18 (5.8,30.0)
Inland Midwest	1.02 (0.4,2.5)	0.09 (0.0,0.5)	0.30 (0.1,1.3)	1.02 (0.3,3.6)	2.57 (1.0,6.6)	4.30 (1.7,11.2)	5.94 (2.2,16.2)	11.00 (4.1,29.2)
Inland South	1.54 (0.8,3.2)	0.23 (0.1,0.9)	0.66 (0.2,2.0)	1.88 (0.7,5.3)	3.91 (1.9,8.0)	5.97 (3.1,11.6)	7.61 (4.2,13.6)	11.48 (6.7,19.5)
Inland West	1.72 (0.8,3.8)	0.21 (0.1,0.7)	0.71 (0.2,2.3)	1.96 (0.7,5.2)	4.08 (1.9,8.9)	6.86 (3.2,14.7)	9.44 (4.3,20.6)	15.51 (6.8,35.2)

570  
571

Table C-31. Trophic level 3 fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	6.15 (4.7,8.0)	1.25 (0.7,2.1)	3.72 (2.5,5.6)	8.20 (6.2,10.9)	15.04 (11.6,19.4)	20.64 (15.9,26.8)	24.93 (19.2,32.4)	34.70 (25.6,47.1)
<b>Gender</b>								
Female	5.26 (4.0,6.9)	1.09 (0.6,1.8)	3.26 (2.1,5.0)	7.00 (5.2,9.5)	12.72 (9.7,16.7)	17.95 (13.7,23.5)	21.60 (16.4,28.4)	28.72 (20.4,40.4)
Male	7.22 (5.5,9.5)	1.50 (0.9,2.6)	4.47 (2.9,6.9)	9.78 (7.2,13.3)	17.38 (13.3,22.6)	23.55 (18.1,30.6)	28.52 (21.7,37.5)	39.96 (29.3,54.6)
<b>Age</b>								
1 to <3 yrs	1.80 (1.0,3.1)	0.22 (0.1,0.4)	0.69 (0.4,1.1)	1.78 (1.2,2.7)	3.89 (2.5,6.1)	6.48 (3.7,11.4)	9.58 (4.5,20.4)	22.70 (5.1,100.7)
3 to <6 yrs	2.18 (1.5,3.1)	0.35 (0.1,0.9)	1.08 (0.5,2.6)	2.85 (1.7,4.8)	5.58 (4.0,7.9)	7.82 (5.6,11.0)	10.11 (7.3,13.9)	14.13 (9.6,20.7)
6 to <11 yrs	3.44 (2.1,5.7)	0.48 (0.3,0.9)	1.42 (0.8,2.4)	4.24 (2.2,8.1)	8.76 (5.2,14.8)	13.37 (7.9,22.7)	17.56 (10.3,29.8)	27.25 (15.4,48.1)
11 to <16 yrs	2.88 (1.8,4.6)	0.49 (0.2,1.1)	1.35 (0.7,2.7)	3.53 (2.1,6.1)	7.58 (4.7,12.3)	10.81 (6.7,17.4)	13.57 (8.4,22.0)	19.50 (10.7,35.7)
16 to <18 yrs	2.90 (1.9,4.5)	0.31 (0.1,0.8)	0.92 (0.4,2.2)	2.71 (1.3,5.5)	6.90 (4.1,11.5)	12.64 (7.7,20.8)	18.57 (9.5,36.4)	29.57 (14.2,61.5)
18 to <21 yrs	4.78 (2.9,7.9)	0.75 (0.4,1.6)	2.38 (1.1,4.9)	6.11 (3.3,11.4)	12.25 (7.1,21.1)	17.30 (10.8,27.7)	21.62 (13.6,34.4)	31.85 (19.5,51.9)
21 to <35 yrs	7.04 (4.8,10.3)	1.83 (0.8,4.2)	4.43 (2.5,7.9)	9.11 (5.9,14.1)	16.46 (11.3,24.0)	23.04 (16.0,33.3)	27.79 (20.0,38.6)	39.30 (27.5,56.1)
35 to <50 yrs	6.88 (4.9,9.8)	2.12 (1.4,3.3)	4.78 (3.4,6.8)	8.99 (6.0,13.4)	15.83 (11.1,22.7)	20.81 (13.8,31.4)	25.07 (16.8,37.5)	34.07 (22.2,52.2)
50 to <65 yrs	9.31 (6.4,13.4)	3.37 (1.8,6.2)	7.01 (4.3,11.3)	12.62 (8.6,18.4)	20.10 (14.1,28.6)	25.43 (18.4,35.2)	29.52 (21.2,41.2)	39.79 (26.6,59.5)
65+ yrs	6.30 (4.5,8.8)	1.94 (1.1,3.4)	4.27 (2.8,6.4)	8.35 (6.0,11.7)	14.07 (9.5,20.8)	18.81 (12.1,29.2)	23.03 (15.3,34.7)	31.34 (19.5,50.3)
<b>Income</b>								
<\$20,000	5.81 (4.4,7.7)	1.03 (0.7,1.6)	3.13 (2.1,4.6)	7.59 (5.6,10.3)	14.78 (11.3,19.4)	20.66 (15.6,27.3)	25.03 (18.5,33.8)	34.75 (23.3,51.9)
>\$20,000	6.14 (4.7,8.1)	1.30 (0.7,2.3)	3.79 (2.5,5.8)	8.20 (6.1,11.0)	14.85 (11.4,19.4)	20.35 (15.5,26.6)	24.42 (18.6,32.1)	34.07 (25.0,46.5)
Income unknown	8.13 (4.0,16.5)	1.66 (0.5,5.9)	5.02 (1.7,14.4)	11.21 (4.9,25.4)	20.82 (9.8,44.0)	27.15 (15.0,49.1)	30.12 (20.0,45.4)	41.68 (27.2,63.8)
<b>Income, finer detail</b>								
<\$20,000	5.81 (4.4,7.7)	1.03 (0.7,1.6)	3.13 (2.1,4.6)	7.59 (5.6,10.3)	14.78 (11.3,19.4)	20.66 (15.6,27.3)	25.03 (18.5,33.8)	34.75 (23.3,51.9)
\$20k-\$45k	5.47 (4.1,7.4)	1.14 (0.6,2.1)	3.36 (2.0,5.6)	7.34 (5.2,10.4)	13.11 (9.9,17.3)	18.15 (13.6,24.3)	21.60 (15.9,29.3)	32.15 (23.0,45.0)
\$45k-\$75k	6.27 (4.6,8.6)	1.23 (0.7,2.1)	3.77 (2.3,6.1)	8.44 (5.9,12.1)	15.41 (11.3,21.1)	20.68 (15.5,27.5)	25.28 (18.8,34.1)	33.57 (23.6,47.7)
\$75k+	6.56 (4.9,8.7)	1.48 (0.8,2.6)	4.17 (2.9,6.0)	8.77 (6.4,12.0)	15.96 (11.9,21.4)	21.78 (16.2,29.2)	25.85 (19.1,34.9)	36.47 (26.0,51.1)
>\$20,000	6.54 (3.4,12.7)	1.80 (0.6,5.9)	4.49 (1.8,11.2)	8.96 (4.5,17.8)	14.21 (8.6,23.6)	19.49 (11.4,33.3)	23.63 (13.4,41.7)	32.19 (17.5,59.2)
Inc Ref/DK	8.04 (3.8,17.1)	1.65 (0.5,5.3)	5.07 (1.8,14.3)	11.96 (4.4,32.5)	20.82 (9.0,48.1)	25.66 (14.1,46.7)	28.72 (17.2,47.8)	35.74 (21.1,60.5)
Inc missing	8.29 (2.9,24.0)	1.71 (0.3,9.2)	4.85 (1.2,19.3)	10.28 (3.5,30.6)	21.68 (7.0,67.5)	29.02 (10.7,78.4)	36.93 (13.1,104.3)	45.08 (21.3,95.6)
<b>Race/Ethnicity</b>								
Mexican American	5.80 (4.1,8.3)	0.97 (0.6,1.6)	3.16 (2.0,5.0)	7.97 (5.4,11.8)	14.67 (10.3,20.9)	20.30 (14.1,29.2)	24.60 (17.1,35.4)	33.65 (22.5,50.3)
Other Hispanic	4.94 (3.4,7.1)	0.65 (0.4,1.2)	2.56 (1.7,3.9)	6.72 (4.5,9.9)	12.54 (8.4,18.8)	18.16 (12.1,27.3)	20.70 (13.2,32.4)	30.41 (19.7,47.0)
White	5.34 (4.1,7.0)	1.16 (0.6,2.1)	3.38 (2.2,5.2)	7.16 (5.3,9.6)	12.77 (9.6,17.0)	17.60 (13.3,23.3)	20.91 (15.3,28.6)	28.50 (19.5,41.7)
Black	7.39 (5.6,9.7)	2.01 (1.4,2.9)	5.27 (3.8,7.3)	10.31 (8.0,13.3)	16.78 (12.3,22.8)	21.83 (15.2,31.3)	25.54 (17.0,38.3)	34.11 (21.4,54.3)
Other race	13.57 (8.1,22.8)	3.43 (1.4,8.3)	10.11 (4.2,24.2)	20.40 (9.7,43.0)	30.79 (19.7,48.1)	38.49 (27.3,54.3)	43.53 (30.6,61.9)	55.83 (34.9,89.3)

574  
575

Table C-31. Trophic level 3 fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.03 (2.8,5.9)	0.84 (0.4,1.7)	2.51 (1.4,4.6)	5.38 (3.5,8.2)	9.61 (6.7,13.8)	13.08 (9.2,18.7)	15.84 (11.0,22.8)	22.69 (15.1,34.1)
Northeast	6.90 (5.1,9.4)	1.25 (0.8,1.9)	4.25 (3.0,6.1)	9.60 (6.8,13.5)	17.46 (12.3,24.9)	22.95 (16.4,32.1)	26.87 (19.3,37.5)	36.18 (24.6,53.2)
South	6.91 (5.2,9.1)	1.60 (1.0,2.6)	4.57 (2.9,7.1)	9.40 (6.9,12.9)	16.49 (12.5,21.8)	21.87 (16.6,28.8)	25.97 (19.4,34.7)	35.70 (25.5,50.0)
West	6.77 (4.8,9.5)	1.36 (0.8,2.3)	4.01 (2.7,6.1)	8.87 (6.3,12.6)	16.73 (11.7,23.8)	23.08 (16.2,32.8)	27.82 (19.6,39.4)	38.83 (26.8,56.3)
<b>Coastal Status</b>								
Noncoastal	5.54 (3.9,7.9)	1.10 (0.6,2.0)	3.31 (2.0,5.5)	7.37 (5.1,10.7)	13.45 (9.7,18.7)	18.82 (13.4,26.5)	22.69 (16.2,31.9)	31.46 (22.0,45.0)
Coastal	7.12 (5.4,9.5)	1.57 (1.0,2.4)	4.49 (3.2,6.3)	9.50 (6.9,13.1)	17.18 (12.9,22.9)	23.45 (17.6,31.3)	27.95 (20.4,38.4)	38.27 (26.0,56.3)
<b>Coastal/Inland Region</b>								
Pacific	6.66 (4.5,9.8)	1.19 (0.7,2.1)	3.79 (2.3,6.2)	8.42 (5.3,13.5)	16.46 (11.3,24.0)	24.22 (16.8,35.0)	29.41 (20.3,42.5)	41.44 (26.2,65.6)
Atlantic	7.31 (4.5,11.8)	1.91 (1.2,3.1)	5.05 (3.2,8.0)	9.98 (6.0,16.7)	16.96 (10.2,28.1)	22.09 (12.8,38.2)	26.20 (15.1,45.5)	36.67 (22.6,59.4)
Gulf of Mexico	9.86 (6.6,14.8)	2.68 (0.9,8.0)	7.05 (3.2,15.4)	14.07 (8.5,23.2)	22.73 (15.8,32.8)	28.78 (19.8,41.9)	32.63 (20.3,52.5)	43.51 (23.8,79.6)
Great Lakes	4.88 (3.3,7.3)	1.06 (0.6,1.8)	2.97 (1.8,4.8)	6.50 (4.2,10.0)	11.55 (7.5,17.8)	16.23 (10.9,24.2)	19.84 (13.1,30.1)	27.92 (18.1,43.1)
Inland Northeast	6.31 (4.2,9.5)	0.89 (0.4,1.8)	3.34 (2.0,5.6)	8.75 (5.5,13.9)	16.85 (9.8,28.8)	22.19 (13.6,36.2)	26.36 (16.5,42.2)	36.09 (21.9,59.6)
Inland Midwest	3.79 (2.3,6.3)	0.79 (0.3,1.9)	2.40 (1.1,5.4)	5.07 (2.8,9.1)	9.03 (5.6,14.5)	12.31 (8.1,18.8)	14.69 (9.9,21.9)	20.21 (13.3,30.8)
Inland South	6.09 (4.3,8.7)	1.36 (0.8,2.4)	4.03 (2.3,7.0)	8.27 (5.6,12.1)	14.44 (10.3,20.3)	19.46 (13.9,27.3)	23.15 (16.5,32.4)	31.63 (21.8,45.9)
Inland West	6.89 (4.1,11.5)	1.49 (0.7,3.1)	4.24 (2.3,7.7)	9.37 (5.4,16.1)	16.91 (9.9,28.8)	22.55 (13.8,36.8)	26.61 (16.5,42.9)	37.56 (22.7,62.1)

576  
577

578  
579

**Table C-32. Trophic level 3 fish usual fish consumption rate estimates, adults ≥21 years**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	7.40 (5.7,9.6)	2.21 (1.3,3.8)	5.02 (3.5,7.2)	9.82 (7.5,12.9)	17.02 (13.1,22.0)	22.69 (17.4,29.6)	26.67 (20.1,35.3)	37.12 (27.0,51.1)
<b>Gender</b>								
Female	6.25 (4.8,8.2)	1.89 (1.1,3.4)	4.29 (2.9,6.3)	8.26 (6.2,11.0)	14.27 (10.9,18.7)	19.65 (14.9,25.9)	23.04 (17.3,30.7)	30.29 (21.1,43.5)
Male	8.86 (6.8,11.6)	2.79 (1.6,4.7)	6.16 (4.3,8.9)	11.84 (8.9,15.7)	19.58 (15.0,25.5)	26.16 (20.0,34.3)	31.43 (23.6,41.9)	43.53 (31.2,60.8)
<b>Age</b>								
21 to <35 yrs	7.04 (4.8,10.3)	1.83 (0.8,4.2)	4.43 (2.5,7.9)	9.11 (5.9,14.1)	16.46 (11.3,24.0)	23.04 (16.0,33.3)	27.79 (20.0,38.6)	39.30 (27.5,56.1)
35 to <50 yrs	6.88 (4.9,9.8)	2.12 (1.4,3.3)	4.78 (3.4,6.8)	8.99 (6.0,13.4)	15.83 (11.1,22.7)	20.81 (13.8,31.4)	25.07 (16.8,37.5)	34.07 (22.2,52.2)
50 to <65 yrs	9.31 (6.4,13.4)	3.37 (1.8,6.2)	7.01 (4.3,11.3)	12.62 (8.6,18.4)	20.10 (14.1,28.6)	25.43 (18.4,35.2)	29.52 (21.2,41.2)	39.79 (26.6,59.5)
65+ yrs	6.30 (4.5,8.8)	1.94 (1.1,3.4)	4.27 (2.8,6.4)	8.35 (6.0,11.7)	14.07 (9.5,20.8)	18.81 (12.1,29.2)	23.03 (15.3,34.7)	31.34 (19.5,50.3)
<b>WCA (13-49 years)</b>	5.31 (4.1,6.9)	1.19 (0.7,2.0)	3.36 (2.3,5.0)	6.95 (5.2,9.3)	12.62 (9.6,16.6)	17.94 (13.7,23.5)	21.72 (16.5,28.7)	29.33 (20.7,41.5)
<b>Income</b>								
<\$20,000	6.96 (5.3,9.2)	1.69 (1.1,2.7)	4.37 (3.1,6.2)	9.28 (7.0,12.4)	16.75 (12.7,22.1)	22.84 (17.0,30.7)	26.79 (18.8,38.2)	36.93 (23.5,58.1)
>\$20,000	7.39 (5.6,9.7)	2.30 (1.3,4.0)	5.09 (3.5,7.4)	9.81 (7.4,13.0)	16.86 (12.9,22.0)	22.25 (16.9,29.3)	26.46 (19.8,35.3)	36.90 (26.8,50.9)
Income unknown	9.54 (4.8,19.0)	2.79 (0.8,10.3)	6.65 (2.6,17.2)	13.08 (6.2,27.5)	22.73 (11.2,46.0)	27.82 (17.0,45.6)	31.39 (21.0,46.9)	43.79 (27.5,69.8)
<b>Income, finer detail</b>								
<\$20,000	6.96 (5.3,9.2)	1.69 (1.1,2.7)	4.37 (3.1,6.2)	9.28 (7.0,12.4)	16.75 (12.7,22.1)	22.84 (17.0,30.7)	26.79 (18.8,38.2)	36.93 (23.5,58.1)
\$20k-\$45k	6.51 (4.8,8.7)	1.89 (1.0,3.5)	4.39 (2.8,6.8)	8.59 (6.3,11.8)	14.88 (11.2,19.8)	19.71 (14.6,26.5)	23.39 (17.0,32.2)	34.42 (24.0,49.4)
\$45k-\$75k	7.58 (5.5,10.5)	2.24 (1.2,4.2)	5.15 (3.1,8.4)	10.25 (6.9,15.2)	17.45 (12.7,24.0)	23.10 (17.1,31.2)	27.18 (20.2,36.5)	37.20 (26.6,52.0)
\$75k+	7.98 (6.0,10.6)	2.70 (1.7,4.2)	5.62 (4.0,7.8)	10.49 (7.7,14.4)	17.85 (13.3,24.0)	23.51 (17.3,31.9)	27.40 (19.5,38.4)	38.12 (26.7,54.4)
>\$20,000	7.48 (4.1,13.7)	2.72 (0.9,8.1)	5.58 (2.5,12.6)	10.12 (5.5,18.6)	16.06 (9.4,27.4)	20.92 (12.4,35.4)	25.37 (14.5,44.5)	33.62 (18.1,62.4)
Inc Ref/DK	9.44 (4.5,19.7)	2.72 (0.8,9.4)	6.68 (2.5,17.7)	13.40 (5.8,30.8)	22.93 (10.3,50.9)	27.60 (15.3,49.9)	30.12 (18.1,50.2)	36.66 (21.2,63.5)
Inc missing	9.76 (3.6,26.7)	2.89 (0.5,15.2)	6.52 (1.8,23.3)	11.76 (4.6,29.8)	22.02 (8.8,55.1)	29.34 (12.5,69.1)	41.68 (12.1,143.3)	69.77 (12.5,389.9)
<b>Race/Ethnicity</b>								
Mexican American	8.04 (5.5,11.8)	2.28 (1.3,4.1)	5.72 (3.4,9.6)	10.97 (7.2,16.6)	18.15 (12.5,26.4)	24.28 (16.6,35.6)	28.14 (19.4,40.9)	37.76 (24.4,58.5)
Other Hispanic	6.96 (4.6,10.6)	2.07 (0.9,4.7)	4.85 (2.7,8.6)	9.37 (5.9,14.8)	15.63 (10.2,24.0)	20.56 (13.3,31.8)	24.58 (15.7,38.5)	36.12 (21.8,59.8)
White	6.32 (4.8,8.3)	2.00 (1.1,3.5)	4.43 (3.1,6.4)	8.39 (6.3,11.3)	14.35 (10.8,19.1)	18.95 (13.9,25.9)	22.41 (16.0,31.5)	30.02 (19.8,45.6)
Black	8.81 (6.9,11.3)	3.14 (1.9,5.1)	6.79 (4.7,9.8)	12.07 (9.4,15.5)	19.04 (14.4,25.1)	24.13 (17.3,33.7)	28.36 (19.9,40.4)	36.54 (23.5,56.8)
Other race	16.30 (10.3,25.8)	6.37 (2.7,14.9)	13.28 (6.5,27.0)	23.44 (12.7,43.3)	32.88 (23.2,46.6)	40.42 (28.7,56.9)	45.90 (30.5,69.0)	61.43 (36.3,104.0)

580  
581

582  
583

Table C-32. Trophic level 3 fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.78 (3.3,6.8)	1.55 (0.7,3.3)	3.35 (2.0,5.7)	6.27 (4.3,9.1)	10.74 (7.6,15.2)	14.07 (9.9,19.9)	16.94 (11.8,24.2)	24.63 (16.6,36.5)
Northeast	8.39 (6.1,11.6)	2.44 (1.5,4.0)	5.90 (4.0,8.6)	11.65 (8.3,16.3)	19.33 (13.9,26.9)	24.83 (18.0,34.3)	29.33 (20.6,41.8)	37.92 (25.5,56.3)
South	8.20 (6.3,10.7)	2.66 (1.5,4.7)	5.88 (3.9,8.8)	11.04 (8.2,14.9)	18.20 (13.8,23.9)	23.72 (17.8,31.6)	27.66 (19.9,38.4)	37.85 (26.3,54.5)
West	8.34 (5.9,11.7)	2.64 (1.6,4.4)	5.63 (3.8,8.4)	10.83 (7.6,15.4)	19.16 (13.3,27.6)	25.51 (17.7,36.7)	30.24 (21.4,42.8)	41.95 (28.2,62.5)
<b>Coastal Status</b>								
Noncoastal	6.73 (4.7,9.6)	1.96 (1.1,3.6)	4.55 (2.8,7.3)	8.97 (6.2,12.9)	15.56 (11.0,22.0)	20.67 (14.8,28.8)	24.60 (17.6,34.3)	33.97 (23.4,49.4)
Coastal	8.44 (6.2,11.4)	2.70 (1.8,4.1)	5.86 (4.1,8.3)	11.17 (8.0,15.6)	19.04 (13.9,26.0)	25.37 (18.6,34.7)	29.79 (20.9,42.5)	40.94 (27.5,60.9)
<b>Coastal/Inland Region</b>								
Pacific	7.89 (5.2,11.9)	2.35 (1.4,4.0)	5.12 (3.1,8.4)	9.73 (5.7,16.5)	18.49 (12.5,27.4)	25.82 (17.7,37.6)	30.79 (20.8,45.6)	43.67 (27.1,70.3)
Atlantic	8.76 (5.5,14.1)	3.14 (1.8,5.5)	6.51 (3.9,10.8)	11.72 (7.0,19.6)	18.87 (11.3,31.5)	24.52 (14.7,41.0)	28.52 (16.5,49.3)	39.36 (24.6,62.9)
Gulf of Mexico	11.27 (8.0,16.0)	4.02 (1.8,9.1)	8.79 (5.1,15.2)	16.11 (10.8,23.9)	24.16 (16.5,35.3)	29.80 (18.1,49.2)	34.07 (18.8,61.8)	47.32 (24.9,89.8)
Great Lakes	5.94 (4.1,8.6)	1.90 (1.1,3.3)	4.12 (2.7,6.3)	7.82 (5.2,11.7)	13.36 (9.1,19.6)	17.73 (11.8,26.5)	21.67 (14.5,32.4)	30.62 (19.4,48.4)
Inland Northeast	7.74 (4.9,12.2)	1.90 (1.0,3.7)	5.09 (2.9,8.8)	10.79 (6.6,17.6)	18.60 (11.3,30.7)	23.55 (15.2,36.6)	27.77 (17.8,43.2)	36.80 (23.2,58.4)
Inland Midwest	4.47 (2.8,7.1)	1.47 (0.6,3.6)	3.18 (1.6,6.3)	5.86 (3.6,9.5)	10.03 (6.4,15.7)	12.96 (8.8,19.2)	15.52 (10.4,23.1)	20.92 (13.3,32.9)
Inland South	7.33 (5.0,10.7)	2.28 (1.2,4.3)	5.32 (3.1,9.1)	9.91 (6.6,14.8)	16.58 (11.3,24.2)	21.65 (15.0,31.2)	25.13 (17.8,35.5)	33.97 (23.1,49.9)
Inland West	8.81 (5.0,15.5)	3.03 (1.3,7.0)	6.26 (3.3,11.9)	11.90 (6.6,21.5)	19.51 (11.4,33.4)	25.07 (15.2,41.3)	29.34 (18.2,47.4)	39.19 (24.2,63.6)

584

Table C-33. Trophic level 3 fish usual fish consumption rate estimates, youth &lt;21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	3.06 (2.2,4.3)	0.43 (0.2,0.8)	1.24 (0.8,2.0)	3.51 (2.4,5.2)	7.82 (5.5,11.0)	11.99 (8.6,16.7)	15.53 (11.3,21.3)	24.98 (18.1,34.5)
<b>Gender</b>								
Female	2.57 (1.8,3.6)	0.36 (0.2,0.7)	1.04 (0.7,1.6)	2.96 (2.0,4.5)	6.64 (4.6,9.5)	9.83 (6.9,13.9)	12.74 (9.0,18.0)	21.59 (15.8,29.6)
Male	3.56 (2.4,5.2)	0.52 (0.3,0.9)	1.51 (0.9,2.5)	4.12 (2.7,6.3)	9.27 (6.1,14.0)	13.95 (9.5,20.4)	18.23 (12.1,27.5)	28.49 (19.1,42.5)
<b>Age</b>								
1 to <3 yrs	1.80 (1.0,3.1)	0.22 (0.1,0.4)	0.69 (0.4,1.1)	1.78 (1.2,2.7)	3.89 (2.5,6.1)	6.48 (3.7,11.4)	9.58 (4.5,20.4)	22.70 (5.1,100.7)
3 to <6 yrs	2.18 (1.5,3.1)	0.35 (0.1,0.9)	1.08 (0.5,2.6)	2.85 (1.7,4.8)	5.58 (4.0,7.9)	7.82 (5.6,11.0)	10.11 (7.3,13.9)	14.13 (9.6,20.7)
6 to <11 yrs	3.44 (2.1,5.7)	0.48 (0.3,0.9)	1.42 (0.8,2.4)	4.24 (2.2,8.1)	8.76 (5.2,14.8)	13.37 (7.9,22.7)	17.56 (10.3,29.8)	27.25 (15.4,48.1)
11 to <16 yrs	2.88 (1.8,4.6)	0.49 (0.2,1.1)	1.35 (0.7,2.7)	3.53 (2.1,6.1)	7.58 (4.7,12.3)	10.81 (6.7,17.4)	13.57 (8.4,22.0)	19.50 (10.7,35.7)
16 to <18 yrs	2.90 (1.9,4.5)	0.31 (0.1,0.8)	0.92 (0.4,2.2)	2.71 (1.3,5.5)	6.90 (4.1,11.5)	12.64 (7.7,20.8)	18.57 (9.5,36.4)	29.57 (14.2,61.5)
18 to <21 yrs	4.78 (2.9,7.9)	0.75 (0.4,1.6)	2.38 (1.1,4.9)	6.11 (3.3,11.4)	12.25 (7.1,21.1)	17.30 (10.8,27.7)	21.62 (13.6,34.4)	31.85 (19.5,51.9)
<b>Income</b>								
<\$20,000	3.43 (2.4,4.8)	0.51 (0.3,0.8)	1.41 (0.9,2.1)	3.88 (2.5,6.1)	8.87 (6.1,12.8)	13.52 (9.5,19.2)	18.06 (12.9,25.2)	26.45 (18.2,38.4)
>\$20,000	2.89 (2.0,4.2)	0.41 (0.2,0.8)	1.19 (0.7,2.0)	3.34 (2.2,5.2)	7.43 (5.0,11.0)	11.35 (7.8,16.4)	14.42 (10.2,20.3)	23.75 (15.8,35.7)
Income unknown	4.89 (1.8,13.0)	0.47 (0.2,1.1)	2.15 (0.5,8.8)	5.89 (1.6,21.3)	13.29 (4.1,43.5)	20.57 (6.9,61.6)	27.51 (9.5,79.5)	36.34 (15.8,83.7)
<b>Income, finer detail</b>								
<\$20,000	3.43 (2.4,4.8)	0.51 (0.3,0.8)	1.41 (0.9,2.1)	3.88 (2.5,6.1)	8.87 (6.1,12.8)	13.52 (9.5,19.2)	18.06 (12.9,25.2)	26.45 (18.2,38.4)
\$20k-\$45k	2.89 (1.9,4.5)	0.41 (0.2,0.8)	1.22 (0.7,2.2)	3.50 (2.0,6.2)	7.44 (4.9,11.3)	11.32 (7.5,17.0)	14.25 (9.9,20.5)	21.16 (14.9,30.1)
\$45k-\$75k	2.63 (1.8,3.8)	0.38 (0.2,0.7)	1.08 (0.7,1.7)	2.96 (1.9,4.5)	7.05 (4.8,10.3)	10.42 (6.9,15.7)	13.50 (9.0,20.3)	22.03 (14.6,33.2)
\$75k+	3.01 (1.9,4.7)	0.42 (0.2,0.8)	1.24 (0.7,2.2)	3.40 (2.1,5.6)	7.63 (4.6,12.7)	11.92 (7.2,19.7)	15.41 (9.6,24.7)	27.50 (15.2,49.9)
>\$20,000	3.54 (1.6,7.6)	0.56 (0.2,1.7)	1.72 (0.7,4.1)	4.45 (1.9,10.4)	9.04 (4.2,19.5)	13.11 (5.9,29.1)	14.65 (7.0,30.8)	26.81 (8.1,88.6)
Inc Ref/DK	4.22 (1.5,12.0)	0.46 (0.2,1.2)	1.82 (0.5,6.6)	5.51 (1.3,23.6)	12.01 (3.1,46.3)	16.69 (5.6,50.2)	19.00 (8.6,41.9)	27.51 (13.3,56.7)
Inc missing	5.81 (1.3,25.8)	0.49 (0.1,1.7)	2.58 (0.4,16.8)	6.45 (1.2,34.2)	17.89 (2.4,131.2)	28.29 (4.2,191.1)	30.62 (7.0,134.0)	36.93 (12.3,110.7)
<b>Race/Ethnicity</b>								
Mexican American	2.36 (1.5,3.6)	0.39 (0.2,0.7)	1.07 (0.7,1.7)	2.88 (1.9,4.4)	6.05 (3.9,9.3)	8.90 (5.4,14.6)	11.18 (6.3,19.9)	16.97 (8.3,34.5)
Other Hispanic	1.27 (0.3,6.2)	0.20 (0.1,0.5)	0.53 (0.1,2.1)	1.38 (0.2,8.1)	3.34 (0.7,16.3)	5.04 (1.0,26.6)	6.57 (1.3,33.4)	10.89 (2.6,45.0)
White	2.45 (1.4,4.3)	0.36 (0.2,0.7)	1.03 (0.5,1.9)	2.75 (1.6,4.7)	6.25 (3.5,11.2)	9.64 (5.2,17.7)	12.76 (6.7,24.5)	20.30 (10.6,38.9)
Black	4.54 (2.6,8.0)	1.01 (0.6,1.7)	2.72 (1.7,4.4)	6.07 (3.5,10.7)	10.94 (5.9,20.3)	14.80 (7.7,28.6)	17.82 (8.9,35.8)	24.47 (11.0,54.3)
Other race	7.71 (3.4,17.3)	1.12 (0.5,2.5)	4.07 (1.4,12.3)	9.99 (4.0,24.9)	21.81 (7.5,63.1)	29.19 (12.5,68.1)	33.26 (17.6,63.0)	49.58 (22.9,107.5)

587  
588

**Table C-33. Trophic level 3 fish usual fish consumption rate estimates, youth <21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.14 (1.3,3.6)	0.33 (0.1,0.9)	0.83 (0.4,1.6)	2.27 (1.3,4.1)	5.44 (3.0,9.7)	8.65 (4.6,16.1)	11.48 (6.1,21.5)	19.07 (10.5,34.6)
Northeast	3.02 (1.8,5.0)	0.36 (0.2,0.6)	1.12 (0.6,2.0)	3.43 (2.2,5.2)	7.74 (4.5,13.3)	12.84 (6.0,27.7)	16.31 (7.6,34.9)	23.84 (11.8,48.2)
South	3.62 (2.5,5.3)	0.61 (0.4,1.0)	1.74 (1.1,2.8)	4.53 (2.9,7.0)	9.02 (6.0,13.5)	13.10 (8.8,19.6)	16.62 (11.2,24.6)	24.90 (17.0,36.5)
West	3.21 (1.9,5.5)	0.40 (0.2,0.8)	1.26 (0.6,2.4)	3.41 (2.0,5.9)	8.01 (4.6,13.9)	13.16 (7.1,24.5)	18.10 (9.3,35.4)	29.67 (14.7,60.0)
<b>Coastal Status</b>								
Noncoastal	2.60 (1.7,4.0)	0.39 (0.2,0.7)	1.10 (0.6,1.9)	3.02 (1.9,4.9)	6.63 (4.3,10.2)	10.00 (6.8,14.8)	13.07 (8.8,19.5)	20.39 (13.6,30.6)
Coastal	3.79 (2.7,5.2)	0.51 (0.3,0.8)	1.54 (1.1,2.2)	4.41 (3.1,6.4)	9.91 (6.9,14.3)	14.76 (10.4,21.0)	19.34 (13.6,27.5)	30.41 (20.5,45.1)
<b>Coastal/Inland Region</b>								
Pacific	3.44 (1.9,6.2)	0.31 (0.2,0.6)	0.98 (0.5,1.8)	3.14 (1.9,5.2)	9.45 (4.9,18.3)	15.27 (7.6,30.6)	23.82 (8.1,69.7)	34.22 (12.7,92.4)
Atlantic	3.38 (2.0,5.8)	0.62 (0.4,1.1)	1.74 (1.0,3.1)	4.43 (2.7,7.4)	8.61 (5.0,14.8)	12.13 (6.8,21.6)	14.75 (8.1,27.0)	20.04 (9.2,43.6)
Gulf of Mexico	6.73 (2.1,21.3)	1.32 (0.3,5.6)	3.79 (0.9,16.0)	8.73 (2.5,30.9)	16.68 (5.2,53.3)	23.66 (7.8,71.8)	29.15 (10.2,83.2)	36.93 (17.8,76.4)
Great Lakes	2.53 (1.0,6.6)	0.41 (0.2,0.9)	1.09 (0.5,2.4)	2.83 (1.0,7.7)	6.03 (1.8,20.0)	9.84 (3.5,28.0)	13.48 (5.3,34.6)	21.88 (9.1,52.4)
Inland Northeast	2.51 (1.7,3.8)	0.24 (0.1,0.5)	0.74 (0.2,2.3)	2.29 (0.9,5.7)	6.05 (3.9,9.4)	11.42 (5.5,23.6)	15.23 (6.4,36.2)	26.45 (8.4,83.7)
Inland Midwest	2.02 (1.0,4.2)	0.32 (0.1,1.2)	0.78 (0.3,2.0)	2.10 (0.8,5.3)	5.21 (2.1,13.1)	8.40 (3.6,19.7)	11.35 (4.9,26.1)	17.13 (8.8,33.5)
Inland South	2.90 (1.9,4.4)	0.51 (0.3,0.9)	1.47 (0.9,2.5)	3.76 (2.3,6.0)	7.12 (4.4,11.5)	10.49 (6.5,16.8)	12.95 (7.9,21.2)	18.98 (11.7,30.8)
Inland West	3.02 (1.5,6.2)	0.53 (0.2,1.4)	1.49 (0.6,3.7)	3.57 (1.7,7.5)	7.32 (3.7,14.6)	10.97 (5.4,22.2)	13.78 (6.6,28.7)	24.82 (9.0,68.6)

589  
590

**Table C-34. Trophic level 4 fish usual fish consumption rate estimates, all ages**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	7.34 (5.6,9.6)	1.51 (0.8,2.7)	4.58 (3.2,6.6)	9.81 (7.4,13.1)	17.47 (13.0,23.4)	23.98 (17.7,32.4)	29.12 (21.5,39.5)	41.25 (30.3,56.2)
<b>Gender</b>								
Female	6.73 (5.2,8.8)	1.38 (0.8,2.5)	4.28 (3.0,6.2)	9.15 (7.0,12.0)	16.12 (12.1,21.5)	21.88 (16.2,29.6)	26.23 (19.0,36.3)	36.57 (25.8,51.8)
Male	8.06 (6.1,10.7)	1.67 (0.9,3.0)	4.96 (3.4,7.3)	10.68 (7.8,14.7)	19.20 (14.0,26.3)	26.31 (19.2,36.1)	32.67 (24.4,43.7)	46.55 (34.7,62.5)
<b>Age</b>								
1 to <3 yrs	1.80 (1.2,2.7)	0.26 (0.1,0.5)	0.83 (0.4,1.6)	2.12 (1.3,3.4)	4.32 (2.7,6.9)	6.69 (4.1,10.9)	9.11 (5.6,14.7)	14.59 (9.3,23.0)
3 to <6 yrs	2.61 (1.6,4.2)	0.46 (0.2,1.3)	1.47 (0.6,3.5)	3.36 (1.8,6.1)	6.38 (4.0,10.2)	8.45 (5.8,12.4)	10.52 (7.0,15.8)	16.56 (10.3,26.7)
6 to <11 yrs	3.64 (2.1,6.2)	0.58 (0.3,1.1)	1.92 (1.0,3.5)	4.72 (2.8,7.8)	9.40 (5.4,16.3)	13.57 (7.5,24.6)	16.17 (8.8,29.7)	22.57 (11.4,44.8)
11 to <16 yrs	3.27 (1.9,5.6)	0.54 (0.3,1.1)	1.69 (0.8,3.7)	4.16 (2.2,7.7)	7.84 (4.6,13.2)	11.06 (6.6,18.6)	14.12 (8.1,24.6)	22.57 (11.6,43.8)
16 to <18 yrs	4.46 (2.9,6.9)	0.57 (0.3,1.2)	1.99 (1.1,3.7)	5.88 (3.5,9.9)	12.03 (7.6,19.1)	17.12 (10.8,27.0)	20.02 (12.2,32.9)	28.87 (17.6,47.5)
18 to <21 yrs	7.35 (4.0,13.6)	0.94 (0.5,1.9)	3.27 (1.6,6.8)	8.24 (4.7,14.5)	17.29 (9.4,31.9)	26.68 (13.7,51.9)	41.28 (17.0,100.1)	67.90 (23.4,197.3)
21 to <35 yrs	7.21 (5.3,9.7)	1.77 (0.8,4.0)	4.64 (2.8,7.8)	9.56 (6.8,13.4)	16.73 (12.2,22.9)	22.95 (16.3,32.4)	28.02 (19.7,39.9)	39.63 (26.6,59.1)
35 to <50 yrs	7.91 (5.8,10.8)	2.61 (1.7,3.9)	5.74 (4.2,7.9)	10.61 (7.7,14.6)	17.67 (12.7,24.6)	23.41 (16.6,32.9)	27.63 (19.1,39.9)	37.01 (24.2,56.6)
50 to <65 yrs	12.11 (8.6,17.1)	4.47 (2.5,8.0)	8.87 (6.0,13.1)	16.09 (11.6,22.3)	26.03 (18.6,36.4)	34.47 (24.1,49.2)	40.32 (28.3,57.5)	56.32 (36.7,86.3)
65+ yrs	8.36 (5.0,13.9)	2.98 (1.8,4.9)	6.18 (3.8,10.1)	11.23 (6.7,18.9)	17.96 (9.9,32.5)	23.89 (13.5,42.4)	27.89 (14.8,52.5)	38.31 (20.9,70.3)
<b>Income</b>								
<\$20,000	5.87 (4.4,7.8)	0.98 (0.6,1.8)	3.35 (2.2,5.1)	7.51 (5.6,10.1)	14.48 (11.0,19.0)	20.02 (15.0,26.7)	25.88 (18.8,35.6)	38.22 (26.5,55.2)
>\$20,000	7.59 (5.8,10.0)	1.65 (0.9,2.9)	4.81 (3.4,6.9)	10.19 (7.6,13.7)	17.97 (13.2,24.5)	24.44 (17.7,33.8)	29.73 (21.6,40.9)	41.57 (29.9,57.8)
Income unknown	8.26 (4.5,15.2)	1.72 (0.5,5.8)	5.30 (2.0,14.2)	11.33 (5.5,23.2)	19.31 (11.5,32.3)	26.67 (16.4,43.3)	31.25 (20.9,46.7)	47.85 (28.9,79.2)
<b>Income, finer detail</b>								
<\$20,000	5.87 (4.4,7.8)	0.98 (0.6,1.8)	3.35 (2.2,5.1)	7.51 (5.6,10.1)	14.48 (11.0,19.0)	20.02 (15.0,26.7)	25.88 (18.8,35.6)	38.22 (26.5,55.2)
\$20k-\$45k	6.42 (4.6,9.0)	1.31 (0.8,2.2)	3.99 (2.7,5.9)	8.48 (6.0,12.1)	14.98 (10.0,22.4)	20.46 (13.1,32.0)	25.39 (16.6,38.9)	38.55 (27.0,55.0)
\$45k-\$75k	7.14 (5.1,10.1)	1.48 (0.9,2.5)	4.40 (2.9,6.6)	9.51 (6.6,13.8)	17.18 (11.8,25.0)	23.61 (16.1,34.6)	28.32 (19.1,41.9)	39.76 (26.5,59.8)
\$75k+	8.82 (6.8,11.5)	2.20 (1.1,4.4)	6.01 (4.1,8.8)	12.06 (9.1,16.0)	20.67 (15.5,27.5)	26.89 (19.4,37.2)	32.43 (23.6,44.6)	44.95 (32.3,62.5)
>\$20,000	7.96 (4.8,13.1)	1.86 (0.9,3.7)	5.20 (2.9,9.4)	10.54 (6.5,17.2)	17.86 (11.3,28.3)	26.20 (15.1,45.5)	33.64 (17.1,66.2)	44.02 (24.2,80.0)
Inc Ref/DK	7.68 (4.4,13.5)	1.68 (0.6,4.9)	5.30 (2.0,14.2)	11.00 (5.4,22.2)	18.17 (10.8,30.5)	23.27 (14.8,36.5)	27.23 (17.2,43.0)	38.31 (22.1,66.3)
Inc missing	9.38 (3.6,24.2)	1.76 (0.3,9.9)	5.27 (1.5,18.5)	12.09 (4.4,33.3)	22.52 (9.6,53.1)	32.41 (14.2,73.9)	44.77 (15.8,126.5)	55.32 (28.2,108.3)
<b>Race/Ethnicity</b>								
Mexican American	5.71 (4.0,8.1)	0.98 (0.5,1.8)	3.30 (1.9,5.7)	7.49 (5.1,11.0)	14.12 (9.9,20.1)	19.32 (14.0,26.7)	23.76 (17.2,32.8)	33.29 (22.3,49.7)
Other Hispanic	6.06 (4.1,8.9)	0.97 (0.5,1.9)	3.45 (2.2,5.5)	7.90 (5.2,12.0)	14.73 (10.0,21.8)	21.25 (14.5,31.2)	25.88 (17.5,38.2)	37.95 (25.7,55.9)
White	7.41 (5.6,9.8)	1.61 (0.9,3.0)	4.71 (3.3,6.8)	9.88 (7.2,13.5)	17.44 (12.5,24.3)	23.90 (17.1,33.4)	28.98 (20.8,40.5)	41.14 (29.9,56.6)
Black	6.86 (5.1,9.2)	1.46 (0.9,2.5)	4.29 (2.9,6.4)	9.19 (6.7,12.6)	16.43 (12.2,22.2)	22.39 (16.4,30.5)	27.69 (20.7,37.0)	38.31 (28.1,52.2)
Other race	11.14 (8.4,14.8)	2.98 (1.3,6.9)	7.79 (4.9,12.4)	15.21 (11.1,20.9)	25.03 (17.7,35.4)	33.96 (23.7,48.7)	40.27 (27.0,60.0)	58.54 (40.5,84.6)

593  
594

**Table C-34. Trophic level 4 fish usual fish consumption rate estimates, all ages (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	5.86 (4.0,8.5)	1.15 (0.6,2.4)	3.65 (2.2,6.0)	7.87 (5.3,11.7)	13.82 (9.0,21.3)	19.05 (12.1,29.9)	23.65 (15.4,36.3)	33.85 (22.2,51.7)
Northeast	8.94 (6.4,12.4)	1.77 (1.1,3.0)	5.59 (3.8,8.2)	12.16 (8.7,17.1)	21.63 (15.3,30.5)	29.34 (20.7,41.6)	34.80 (24.4,49.6)	48.89 (33.6,71.1)
South	7.02 (5.4,9.1)	1.42 (0.8,2.5)	4.26 (2.9,6.2)	9.09 (6.8,12.1)	16.61 (12.7,21.8)	23.05 (17.4,30.6)	28.90 (21.9,38.1)	43.65 (31.6,60.2)
West	8.27 (6.1,11.2)	2.00 (1.0,3.9)	5.77 (3.9,8.5)	11.49 (8.4,15.7)	19.23 (13.6,27.2)	25.31 (17.4,36.8)	29.96 (20.1,44.7)	39.91 (25.1,63.5)
<b>Coastal Status</b>								
Noncoastal	7.22 (5.3,9.8)	1.51 (0.8,2.9)	4.65 (2.9,7.4)	9.74 (7.1,13.4)	17.15 (12.7,23.2)	23.24 (17.0,31.8)	27.79 (20.0,38.7)	39.54 (28.0,55.8)
Coastal	7.52 (5.3,10.6)	1.51 (0.9,2.5)	4.48 (3.0,6.6)	9.91 (6.7,14.7)	18.07 (11.9,27.3)	25.32 (17.3,37.2)	31.02 (21.4,45.1)	44.49 (31.6,62.6)
<b>Coastal/Inland Region</b>								
Pacific	7.28 (4.6,11.5)	1.55 (0.9,2.8)	4.93 (3.1,7.7)	10.12 (6.4,16.0)	17.11 (10.0,29.2)	23.37 (14.4,38.0)	26.95 (15.0,48.5)	35.63 (18.4,69.2)
Atlantic	7.87 (4.7,13.1)	1.84 (1.0,3.3)	4.97 (2.8,8.9)	10.62 (6.2,18.3)	18.60 (10.7,32.2)	25.44 (15.2,42.6)	30.95 (19.1,50.0)	41.93 (25.2,69.9)
Gulf of Mexico	8.51 (5.0,14.5)	1.28 (0.6,2.7)	3.69 (2.2,6.1)	9.34 (5.9,14.9)	22.32 (11.3,44.1)	34.97 (16.6,73.7)	45.37 (21.8,94.4)	67.85 (35.1,131.2)
Great Lakes	6.13 (4.0,9.4)	0.91 (0.5,1.7)	3.09 (1.8,5.2)	7.63 (4.4,13.3)	15.95 (10.3,24.6)	23.27 (15.4,35.1)	28.73 (19.2,43.1)	41.61 (29.1,59.5)
Inland Northeast	9.28 (5.7,15.1)	1.56 (0.8,2.9)	5.68 (3.4,9.6)	12.64 (7.9,20.3)	22.91 (13.7,38.3)	31.12 (18.2,53.1)	37.22 (21.9,63.2)	50.25 (29.7,85.0)
Inland Midwest	5.76 (3.9,8.5)	1.22 (0.5,2.8)	3.80 (2.1,6.7)	7.88 (5.2,12.0)	13.42 (8.9,20.2)	18.14 (11.9,27.6)	21.97 (14.4,33.5)	31.05 (20.5,47.0)
Inland South	6.47 (4.7,8.8)	1.35 (0.7,2.7)	4.26 (2.5,7.2)	8.68 (6.3,12.0)	15.12 (11.4,20.1)	20.76 (15.6,27.6)	24.38 (18.2,32.7)	34.53 (24.8,48.0)
Inland West	9.27 (6.0,14.4)	2.53 (0.9,7.5)	6.58 (3.6,12.0)	12.67 (8.2,19.5)	21.11 (14.0,32.0)	27.13 (18.0,40.8)	33.12 (21.9,50.1)	43.77 (28.0,68.3)

595  
596

597  
598

**Table C-35. Trophic level 4 fish usual fish consumption rate estimates, adults ≥21 years**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	8.75 (6.7,11.5)	2.69 (1.6,4.5)	6.08 (4.4,8.4)	11.63 (8.7,15.6)	19.63 (14.5,26.6)	26.23 (19.2,35.9)	31.73 (23.5,42.9)	43.40 (31.4,60.1)
<b>Gender</b>								
Female	7.97 (6.1,10.4)	2.42 (1.4,4.1)	5.62 (4.1,7.7)	10.70 (8.1,14.1)	18.01 (13.5,24.1)	23.95 (17.6,32.6)	28.46 (20.5,39.5)	38.42 (26.7,55.4)
Male	9.73 (7.3,13.0)	3.08 (1.9,5.0)	6.82 (4.8,9.7)	12.87 (9.3,17.9)	21.74 (15.7,30.1)	29.35 (21.7,39.6)	35.30 (26.3,47.5)	48.37 (35.2,66.5)
<b>Age</b>								
21 to <35 yrs	7.21 (5.3,9.7)	1.77 (0.8,4.0)	4.64 (2.8,7.8)	9.56 (6.8,13.4)	16.73 (12.2,22.9)	22.95 (16.3,32.4)	28.02 (19.7,39.9)	39.63 (26.6,59.1)
35 to <50 yrs	7.91 (5.8,10.8)	2.61 (1.7,3.9)	5.74 (4.2,7.9)	10.61 (7.7,14.6)	17.67 (12.7,24.6)	23.41 (16.6,32.9)	27.63 (19.1,39.9)	37.01 (24.2,56.6)
50 to <65 yrs	12.11 (8.6,17.1)	4.47 (2.5,8.0)	8.87 (6.0,13.1)	16.09 (11.6,22.3)	26.03 (18.6,36.4)	34.47 (24.1,49.2)	40.32 (28.3,57.5)	56.32 (36.7,86.3)
65+ yrs	8.36 (5.0,13.9)	2.98 (1.8,4.9)	6.18 (3.8,10.1)	11.23 (6.7,18.9)	17.96 (9.9,32.5)	23.89 (13.5,42.4)	27.89 (14.8,52.5)	38.31 (20.9,70.3)
<b>WCA (13-49 years)</b>	6.43 (5.0,8.3)	1.45 (0.8,2.6)	4.20 (2.9,6.2)	8.71 (6.7,11.4)	15.23 (11.5,20.1)	20.45 (15.1,27.7)	24.65 (18.0,33.8)	34.24 (24.2,48.5)
<b>Income</b>								
<\$20,000	7.14 (5.3,9.5)	1.64 (0.9,3.0)	4.64 (3.1,6.9)	9.11 (6.8,12.2)	16.59 (12.5,22.0)	23.30 (17.1,31.8)	28.73 (20.4,40.5)	40.04 (27.5,58.3)
>\$20,000	9.00 (6.8,12.0)	2.90 (1.8,4.6)	6.34 (4.6,8.8)	11.96 (8.7,16.4)	20.08 (14.5,27.7)	26.45 (18.7,37.4)	32.06 (23.2,44.2)	43.53 (30.8,61.5)
Income unknown	9.68 (5.4,17.3)	2.88 (0.8,11.0)	7.12 (2.7,18.4)	13.24 (6.9,25.5)	20.89 (13.5,32.4)	29.29 (18.1,47.3)	32.64 (21.6,49.4)	49.83 (29.5,84.1)
<b>Income, finer detail</b>								
<\$20,000	7.14 (5.3,9.5)	1.64 (0.9,3.0)	4.64 (3.1,6.9)	9.11 (6.8,12.2)	16.59 (12.5,22.0)	23.30 (17.1,31.8)	28.73 (20.4,40.5)	40.04 (27.5,58.3)
\$20k-\$45k	7.51 (5.3,10.7)	2.28 (1.4,3.8)	5.18 (3.6,7.5)	9.99 (6.9,14.4)	16.71 (11.0,25.4)	22.41 (14.2,35.5)	27.32 (17.5,42.6)	38.85 (25.4,59.5)
\$45k-\$75k	8.40 (6.0,11.9)	2.52 (1.6,4.1)	5.70 (3.8,8.5)	11.14 (7.7,16.2)	19.18 (13.4,27.5)	25.60 (17.6,37.2)	30.66 (21.4,44.0)	41.07 (27.1,62.3)
\$75k+	10.62 (8.1,13.9)	3.83 (2.4,6.0)	7.91 (5.7,10.9)	14.26 (10.7,19.0)	22.95 (17.0,31.0)	29.83 (21.8,40.8)	35.16 (25.4,48.6)	46.33 (31.4,68.3)
>\$20,000	9.31 (5.7,15.1)	2.96 (1.5,5.9)	6.56 (3.9,11.1)	11.94 (7.5,19.0)	19.89 (12.5,31.7)	29.27 (15.8,54.2)	36.32 (18.1,73.0)	45.96 (25.4,83.0)
Inc Ref/DK	8.85 (5.3,14.9)	2.85 (0.8,9.9)	6.99 (2.8,17.4)	12.35 (6.9,22.1)	19.02 (12.3,29.5)	24.89 (15.7,39.6)	29.29 (18.3,46.8)	40.91 (23.0,72.7)
Inc missing	11.56 (4.2,31.5)	3.06 (0.4,21.1)	7.48 (2.0,28.6)	15.70 (5.1,48.3)	26.67 (10.5,67.7)	39.22 (14.8,104.1)	46.62 (18.1,119.8)	55.32 (27.3,112.1)
<b>Race/Ethnicity</b>								
Mexican American	7.46 (5.1,11.0)	1.97 (0.9,4.2)	5.19 (2.9,9.2)	10.02 (6.5,15.3)	16.76 (11.8,23.9)	22.56 (16.2,31.5)	27.40 (19.4,38.7)	37.40 (25.0,55.9)
Other Hispanic	7.81 (5.1,11.9)	2.14 (1.1,4.3)	5.17 (3.1,8.6)	10.39 (6.6,16.4)	17.90 (11.9,26.9)	24.93 (16.2,38.3)	28.71 (19.2,43.0)	41.70 (27.4,63.6)
White	8.54 (6.3,11.6)	2.69 (1.7,4.4)	6.00 (4.3,8.4)	11.41 (8.2,15.9)	19.18 (13.5,27.3)	25.50 (17.8,36.6)	30.90 (22.1,43.2)	41.54 (28.7,60.2)
Black	8.72 (6.5,11.7)	2.74 (1.4,5.4)	6.20 (4.1,9.3)	11.74 (8.6,16.0)	19.38 (14.4,26.1)	26.00 (19.3,35.0)	31.26 (23.3,41.9)	42.03 (30.6,57.8)
Other race	13.62 (10.2,18.3)	4.90 (2.9,8.2)	10.34 (7.0,15.4)	18.35 (13.3,25.3)	28.73 (20.5,40.3)	38.34 (27.1,54.2)	47.20 (33.9,65.7)	62.93 (41.8,94.8)

599  
600

601  
602

Table C-35. Trophic level 4 fish usual fish consumption rate estimates, adults ≥21 years (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	7.16 (4.8,10.7)	2.16 (1.2,4.0)	4.88 (3.1,7.7)	9.64 (6.4,14.5)	16.11 (10.4,24.9)	21.45 (13.5,34.2)	25.88 (16.3,41.1)	37.87 (25.8,55.6)
Northeast	10.23 (7.3,14.3)	3.04 (1.8,5.2)	7.36 (5.1,10.7)	14.12 (10.0,19.8)	23.38 (16.7,32.7)	30.50 (21.5,43.4)	35.31 (24.3,51.3)	46.24 (29.8,71.7)
South	8.48 (6.6,10.9)	2.52 (1.5,4.2)	5.76 (4.1,8.1)	10.91 (8.3,14.3)	19.04 (14.6,24.8)	25.85 (19.6,34.1)	32.13 (24.0,43.0)	46.62 (33.2,65.4)
West	9.83 (7.3,13.3)	3.56 (2.1,6.1)	7.39 (5.2,10.4)	13.25 (9.6,18.2)	21.39 (15.2,30.0)	27.43 (18.8,40.1)	32.29 (21.8,47.9)	42.71 (27.7,65.9)
<b>Coastal Status</b>								
Noncoastal	8.53 (6.3,11.5)	2.72 (1.4,5.4)	6.10 (4.1,9.1)	11.44 (8.4,15.6)	19.13 (14.1,25.9)	24.99 (18.0,34.6)	30.21 (21.9,41.7)	40.58 (28.4,57.9)
Coastal	9.08 (6.2,13.2)	2.66 (1.7,4.2)	6.05 (3.9,9.4)	12.01 (7.9,18.1)	20.67 (13.7,31.1)	28.09 (19.1,41.4)	34.18 (23.9,48.9)	47.20 (32.8,67.9)
<b>Coastal/Inland Region</b>								
Pacific	8.76 (5.6,13.7)	2.99 (1.8,5.1)	6.51 (4.1,10.3)	11.93 (7.6,18.7)	19.17 (11.6,31.8)	25.40 (15.8,40.7)	29.54 (17.7,49.2)	38.63 (22.3,66.8)
Atlantic	9.40 (5.5,16.1)	2.91 (1.4,6.1)	6.53 (3.5,12.0)	12.78 (7.5,21.7)	20.93 (11.9,36.7)	28.04 (16.7,47.0)	33.54 (20.4,55.1)	45.05 (27.6,73.6)
Gulf of Mexico	10.25 (5.6,18.8)	2.13 (1.0,4.4)	5.07 (3.0,8.6)	11.72 (6.9,19.9)	26.29 (12.1,57.0)	38.78 (17.2,87.3)	49.62 (22.8,108.1)	69.59 (35.2,137.8)
Great Lakes	7.76 (4.7,12.8)	1.91 (1.0,3.8)	4.56 (2.3,8.9)	10.03 (5.6,17.9)	18.66 (11.2,30.9)	26.34 (16.8,41.4)	33.10 (22.4,48.9)	44.20 (29.3,66.6)
Inland Northeast	10.30 (6.5,16.2)	2.85 (1.3,6.2)	7.42 (4.3,12.7)	14.49 (9.1,23.1)	23.82 (15.2,37.4)	30.73 (19.6,48.2)	35.34 (23.0,54.4)	44.41 (27.3,72.2)
Inland Midwest	6.98 (4.6,10.5)	2.26 (1.1,4.8)	4.93 (3.0,8.1)	9.51 (6.2,14.5)	15.39 (10.2,23.2)	20.20 (13.1,31.2)	24.30 (15.8,37.3)	33.77 (22.1,51.5)
Inland South	7.86 (5.7,10.8)	2.55 (1.1,5.8)	5.79 (3.5,9.7)	10.43 (7.7,14.2)	17.23 (13.1,22.7)	22.87 (17.3,30.3)	27.11 (20.2,36.4)	37.64 (27.0,52.5)
Inland West	10.98 (7.1,16.9)	4.25 (1.8,10.0)	8.39 (5.0,14.1)	14.70 (9.6,22.6)	22.98 (15.3,34.5)	29.70 (19.7,44.7)	35.24 (23.0,53.9)	47.41 (30.2,74.4)

603

604  
605

Table C-36. Trophic level 4 fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	3.84 (2.6,5.6)	0.53 (0.3,1.0)	1.70 (1.0,3.0)	4.47 (2.9,6.9)	9.23 (6.5,13.1)	14.12 (9.9,20.1)	17.97 (12.4,26.0)	29.82 (19.2,46.4)
<b>Gender</b>								
Female	3.35 (2.4,4.8)	0.48 (0.3,0.9)	1.51 (0.9,2.7)	4.02 (2.6,6.2)	8.42 (5.9,12.0)	12.82 (9.1,18.1)	15.89 (11.1,22.8)	24.78 (16.7,36.7)
Male	4.34 (2.8,6.7)	0.58 (0.3,1.1)	1.95 (1.0,3.7)	4.90 (3.1,7.6)	10.10 (6.9,14.7)	15.82 (10.6,23.6)	21.20 (13.6,33.1)	37.82 (21.0,68.0)
<b>Age</b>								
1 to <3 yrs	1.80 (1.2,2.7)	0.26 (0.1,0.5)	0.83 (0.4,1.6)	2.12 (1.3,3.4)	4.32 (2.7,6.9)	6.69 (4.1,10.9)	9.11 (5.6,14.7)	14.59 (9.3,23.0)
3 to <6 yrs	2.61 (1.6,4.2)	0.46 (0.2,1.3)	1.47 (0.6,3.5)	3.36 (1.8,6.1)	6.38 (4.0,10.2)	8.45 (5.8,12.4)	10.52 (7.0,15.8)	16.56 (10.3,26.7)
6 to <11 yrs	3.64 (2.1,6.2)	0.58 (0.3,1.1)	1.92 (1.0,3.5)	4.72 (2.8,7.8)	9.40 (5.4,16.3)	13.57 (7.5,24.6)	16.17 (8.8,29.7)	22.57 (11.4,44.8)
11 to <16 yrs	3.27 (1.9,5.6)	0.54 (0.3,1.1)	1.69 (0.8,3.7)	4.16 (2.2,7.7)	7.84 (4.6,13.2)	11.06 (6.6,18.6)	14.12 (8.1,24.6)	22.57 (11.6,43.8)
16 to <18 yrs	4.46 (2.9,6.9)	0.57 (0.3,1.2)	1.99 (1.1,3.7)	5.88 (3.5,9.9)	12.03 (7.6,19.1)	17.12 (10.8,27.0)	20.02 (12.2,32.9)	28.87 (17.6,47.5)
18 to <21 yrs	7.35 (4.0,13.6)	0.94 (0.5,1.9)	3.27 (1.6,6.8)	8.24 (4.7,14.5)	17.29 (9.4,31.9)	26.68 (13.7,51.9)	41.28 (17.0,100.1)	67.90 (23.4,197.3)
<b>Income</b>								
<\$20,000	3.24 (2.2,4.7)	0.47 (0.3,0.8)	1.54 (0.9,2.7)	4.02 (2.7,6.0)	7.92 (5.1,12.4)	11.88 (7.3,19.2)	15.21 (9.4,24.5)	21.85 (11.2,42.5)
>\$20,000	3.92 (2.6,5.9)	0.54 (0.3,1.0)	1.72 (1.0,3.1)	4.51 (2.8,7.2)	9.46 (6.4,13.9)	14.41 (9.9,21.0)	18.65 (12.7,27.4)	31.91 (19.7,51.7)
Income unknown	5.01 (2.1,11.8)	0.67 (0.3,1.8)	2.45 (0.7,8.4)	5.97 (2.2,16.0)	12.59 (4.9,32.2)	19.04 (7.7,47.1)	22.52 (10.9,46.5)	41.35 (14.6,116.7)
<b>Income, finer detail</b>								
<\$20,000	3.24 (2.2,4.7)	0.47 (0.3,0.8)	1.54 (0.9,2.7)	4.02 (2.7,6.0)	7.92 (5.1,12.4)	11.88 (7.3,19.2)	15.21 (9.4,24.5)	21.85 (11.2,42.5)
\$20k-\$45k	3.69 (2.4,5.6)	0.49 (0.3,0.9)	1.55 (0.9,2.7)	4.07 (2.6,6.4)	8.59 (5.9,12.4)	13.22 (9.2,18.9)	17.28 (11.7,25.5)	32.18 (17.5,59.0)
\$45k-\$75k	3.61 (2.2,5.9)	0.47 (0.2,0.9)	1.58 (0.8,3.0)	4.10 (2.5,6.8)	8.86 (5.4,14.6)	13.66 (7.9,23.6)	17.45 (9.1,33.5)	29.46 (13.8,62.8)
\$75k+	4.32 (2.6,7.1)	0.62 (0.3,1.4)	2.03 (0.9,4.4)	5.18 (2.9,9.3)	10.47 (6.7,16.5)	15.91 (10.2,24.9)	20.03 (13.0,30.9)	32.35 (20.3,51.7)
>\$20,000	3.60 (1.8,7.2)	0.79 (0.2,2.6)	2.07 (1.1,3.8)	3.97 (1.9,8.2)	7.94 (3.3,19.1)	13.85 (5.6,34.1)	15.79 (5.5,45.4)	31.21 (10.8,89.8)
Inc Ref/DK	4.49 (1.5,13.5)	0.54 (0.2,1.3)	2.06 (0.7,6.1)	5.38 (1.5,18.9)	12.59 (2.7,57.9)	18.04 (4.9,66.5)	20.58 (7.7,55.0)	26.80 (13.1,54.7)
Inc missing	5.72 (2.1,15.3)	0.93 (0.1,6.0)	2.81 (0.7,11.8)	6.87 (2.2,21.0)	13.25 (5.1,34.6)	19.96 (7.6,52.6)	28.52 (9.5,85.8)	43.41 (13.8,136.4)
<b>Race/Ethnicity</b>								
Mexican American	3.01 (1.8,4.9)	0.44 (0.2,0.8)	1.42 (0.8,2.5)	3.73 (2.3,6.0)	7.34 (4.4,12.3)	11.44 (7.0,18.8)	14.52 (8.2,25.6)	21.98 (10.8,44.8)
Other Hispanic	2.88 (1.1,7.7)	0.37 (0.1,1.2)	1.15 (0.4,3.7)	3.51 (1.4,8.6)	7.25 (2.6,20.2)	11.19 (4.1,30.2)	14.85 (5.6,39.1)	22.76 (7.9,65.3)
White	4.06 (2.0,8.1)	0.52 (0.2,1.2)	1.64 (0.8,3.5)	4.44 (2.3,8.4)	9.76 (5.2,18.2)	15.34 (8.0,29.6)	19.85 (10.5,37.6)	38.61 (13.5,110.6)
Black	3.14 (1.9,5.3)	0.62 (0.3,1.1)	1.93 (1.2,3.2)	4.12 (2.5,6.8)	7.38 (3.9,14.1)	10.27 (5.0,21.1)	12.57 (5.9,27.0)	18.50 (8.5,40.1)
Other race	5.85 (3.8,9.0)	1.05 (0.4,2.9)	3.48 (1.4,8.5)	8.20 (4.6,14.6)	14.46 (8.6,24.5)	19.42 (8.9,42.2)	22.57 (8.3,61.1)	34.10 (13.0,89.2)

606  
607

Table C-36. Trophic level 4 fish usual fish consumption rate estimates, youth &lt;21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.55 (1.8,3.7)	0.42 (0.2,1.0)	1.20 (0.6,2.4)	3.29 (1.9,5.7)	6.37 (4.3,9.3)	9.02 (5.5,14.7)	11.12 (6.0,20.5)	17.33 (8.4,35.6)
Northeast	5.57 (2.5,12.7)	0.63 (0.4,1.1)	2.16 (1.3,3.6)	5.54 (3.5,8.8)	13.71 (6.3,30.0)	22.42 (8.3,60.6)	34.38 (8.5,139.3)	57.49 (10.8,304.8)
South	3.31 (2.1,5.1)	0.48 (0.3,0.9)	1.55 (0.9,2.7)	3.96 (2.4,6.4)	7.83 (4.8,12.7)	11.56 (7.1,18.9)	14.69 (8.9,24.3)	24.67 (15.5,39.2)
West	4.73 (2.7,8.2)	0.74 (0.3,2.0)	2.34 (0.9,6.0)	6.19 (2.9,13.3)	12.30 (6.6,22.8)	17.20 (10.2,29.1)	21.54 (13.2,35.3)	28.48 (14.3,56.9)
<b>Coastal Status</b>								
Noncoastal	3.99 (2.5,6.4)	0.55 (0.3,1.0)	1.76 (1.0,3.2)	4.63 (2.9,7.5)	9.54 (6.3,14.6)	14.74 (9.3,23.4)	18.91 (11.7,30.6)	34.14 (16.3,71.6)
Coastal	3.59 (2.5,5.2)	0.50 (0.2,1.1)	1.63 (0.8,3.2)	4.23 (2.6,6.9)	8.86 (6.0,13.2)	13.09 (8.8,19.6)	16.85 (10.7,26.4)	25.89 (13.6,49.1)
<b>Coastal/Inland Region</b>								
Pacific	3.41 (2.1,5.5)	0.50 (0.2,1.3)	1.63 (0.7,3.8)	4.38 (2.4,8.2)	8.72 (5.2,14.5)	12.98 (6.5,26.0)	16.02 (6.5,39.6)	21.98 (5.7,84.6)
Atlantic	3.72 (2.1,6.6)	0.60 (0.3,1.3)	2.02 (0.9,4.5)	4.73 (2.5,9.0)	9.16 (5.0,16.7)	13.08 (7.4,23.0)	16.41 (9.4,28.7)	25.02 (14.2,44.0)
Gulf of Mexico	4.65 (2.0,10.7)	0.43 (0.2,0.9)	1.55 (0.8,3.1)	4.45 (2.1,9.4)	10.10 (4.7,21.6)	16.59 (7.4,37.4)	24.95 (10.0,62.4)	63.52 (12.6,321.0)
Great Lakes	2.52 (1.3,4.7)	0.36 (0.1,1.1)	1.08 (0.5,2.5)	2.67 (1.5,4.8)	5.89 (2.9,11.9)	10.16 (5.0,20.6)	13.90 (6.4,30.2)	22.75 (8.1,64.2)
Inland Northeast	6.58 (2.2,19.5)	0.57 (0.3,1.1)	1.98 (1.0,3.8)	5.36 (3.1,9.2)	16.82 (5.4,52.6)	34.38 (5.4,218.3)	45.70 (6.4,326.9)	74.42 (7.8,708.6)
Inland Midwest	2.56 (1.7,3.9)	0.44 (0.2,1.1)	1.27 (0.6,2.8)	3.47 (1.8,6.8)	6.41 (4.2,9.8)	8.78 (5.3,14.5)	10.49 (5.5,19.9)	15.61 (7.4,33.0)
Inland South	2.91 (1.7,5.0)	0.47 (0.2,0.9)	1.45 (0.8,2.7)	3.75 (2.1,6.7)	7.23 (4.0,13.0)	10.51 (5.8,19.1)	13.18 (7.1,24.4)	19.64 (10.8,35.6)
Inland West	5.82 (2.3,14.7)	1.12 (0.3,4.9)	3.24 (0.8,13.4)	7.77 (2.6,23.2)	14.54 (5.9,35.7)	19.75 (9.2,42.6)	23.99 (11.5,50.1)	35.38 (16.8,74.5)

608  
609

610  
611

Table C-37. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	2.70 (2.0,3.7)	0.35 (0.2,0.7)	1.17 (0.7,2.0)	3.21 (2.2,4.7)	6.93 (5.1,9.5)	10.55 (7.7,14.5)	13.55 (9.7,18.9)	20.68 (14.0,30.5)
<b>Gender</b>								
Female	2.32 (1.7,3.2)	0.31 (0.2,0.6)	1.03 (0.6,1.7)	2.82 (1.9,4.1)	5.93 (4.3,8.2)	8.99 (6.4,12.6)	11.54 (8.0,16.6)	17.44 (11.5,26.4)
Male	3.15 (2.3,4.4)	0.41 (0.2,0.8)	1.37 (0.8,2.4)	3.76 (2.5,5.7)	8.20 (5.9,11.5)	12.35 (8.8,17.3)	15.92 (11.1,22.8)	24.42 (15.5,38.6)
<b>Age</b>								
1 to <3 yrs	0.64 (0.3,1.3)	0.07 (0.0,0.2)	0.23 (0.1,0.5)	0.65 (0.3,1.3)	1.62 (0.8,3.4)	2.76 (1.1,6.9)	3.70 (1.5,9.3)	5.88 (2.4,14.5)
3 to <6 yrs	0.89 (0.5,1.5)	0.11 (0.1,0.2)	0.35 (0.2,0.7)	0.98 (0.6,1.7)	2.35 (1.4,4.0)	3.50 (2.2,5.6)	4.53 (2.8,7.3)	7.48 (4.6,12.1)
6 to <11 yrs	0.98 (0.5,1.8)	0.11 (0.0,0.3)	0.36 (0.2,0.8)	1.07 (0.6,2.0)	2.50 (1.4,4.6)	3.92 (2.2,7.1)	5.33 (2.8,10.2)	8.91 (4.1,19.6)
11 to <16 yrs	1.28 (0.6,2.6)	0.15 (0.0,0.5)	0.50 (0.2,1.3)	1.42 (0.6,3.3)	3.14 (1.4,7.1)	5.14 (2.6,10.1)	6.61 (3.4,12.9)	10.45 (5.4,20.3)
16 to <18 yrs	1.18 (0.7,2.1)	0.14 (0.1,0.3)	0.42 (0.2,1.0)	1.23 (0.6,2.5)	3.02 (1.6,5.6)	4.94 (2.7,9.0)	6.70 (3.6,12.3)	11.31 (5.4,23.8)
18 to <21 yrs	2.28 (1.0,5.3)	0.24 (0.1,0.5)	0.82 (0.4,1.7)	2.41 (1.2,4.8)	5.86 (2.5,13.8)	8.98 (3.8,21.0)	12.91 (4.3,39.2)	22.29 (5.6,88.1)
21 to <35 yrs	3.23 (2.2,4.6)	0.52 (0.3,1.0)	1.59 (1.0,2.6)	4.05 (2.6,6.2)	8.21 (5.6,12.1)	11.96 (8.2,17.4)	14.88 (10.4,21.3)	21.37 (15.3,29.9)
35 to <50 yrs	3.70 (2.5,5.4)	0.66 (0.3,1.3)	1.87 (1.1,3.1)	4.52 (3.0,6.8)	9.01 (6.2,13.2)	13.82 (8.7,22.0)	17.48 (10.5,29.0)	26.20 (14.0,48.9)
50 to <65 yrs	3.28 (2.1,5.1)	0.66 (0.3,1.6)	1.76 (0.9,3.5)	4.15 (2.5,6.9)	8.36 (5.7,12.2)	11.88 (8.2,17.2)	14.39 (9.9,20.8)	20.11 (13.7,29.4)
65+ yrs	2.59 (1.8,3.7)	0.47 (0.2,1.0)	1.29 (0.7,2.3)	3.14 (2.0,4.8)	6.45 (4.6,9.0)	9.44 (6.9,12.9)	11.99 (8.8,16.4)	18.19 (12.6,26.4)
<b>Income</b>								
<\$20,000	2.20 (1.5,3.1)	0.27 (0.1,0.5)	0.89 (0.5,1.6)	2.57 (1.7,4.0)	5.72 (4.0,8.2)	8.65 (6.1,12.2)	11.64 (8.3,16.3)	17.00 (11.9,24.2)
>\$20,000	2.79 (2.0,3.8)	0.37 (0.2,0.7)	1.22 (0.7,2.1)	3.31 (2.2,5.0)	7.15 (5.2,9.9)	10.81 (7.8,14.9)	13.96 (9.8,19.9)	21.39 (13.9,32.8)
Income unknown	2.86 (1.5,5.4)	0.38 (0.2,0.9)	1.39 (0.6,3.5)	3.83 (1.6,9.1)	7.49 (3.9,14.5)	11.16 (5.6,22.2)	12.84 (7.6,21.8)	18.22 (10.8,30.7)
<b>Income, finer detail</b>								
<\$20,000	2.20 (1.5,3.1)	0.27 (0.1,0.5)	0.89 (0.5,1.6)	2.57 (1.7,4.0)	5.72 (4.0,8.2)	8.65 (6.1,12.2)	11.64 (8.3,16.3)	17.00 (11.9,24.2)
\$20k-\$45k	2.52 (1.7,3.6)	0.33 (0.2,0.6)	1.06 (0.6,1.8)	2.94 (1.9,4.5)	6.52 (4.4,9.6)	9.83 (6.8,14.2)	12.98 (8.3,20.2)	19.63 (12.5,30.7)
\$45k-\$75k	2.82 (1.8,4.3)	0.37 (0.2,0.7)	1.20 (0.7,2.1)	3.36 (2.1,5.4)	7.24 (4.7,11.2)	10.84 (7.1,16.6)	14.16 (8.8,22.7)	21.51 (12.9,35.7)
\$75k+	2.96 (2.0,4.4)	0.40 (0.2,0.9)	1.35 (0.7,2.7)	3.55 (2.1,6.1)	7.59 (5.1,11.3)	11.28 (7.9,16.2)	14.86 (10.3,21.5)	22.02 (14.5,33.5)
>\$20,000	3.26 (1.6,6.5)	0.63 (0.2,1.7)	1.58 (0.8,3.3)	3.94 (1.9,8.0)	8.15 (4.0,16.5)	11.89 (5.7,24.6)	15.08 (7.2,31.5)	24.08 (9.0,64.6)
Inc Ref/DK	3.22 (1.7,6.0)	0.52 (0.2,1.2)	1.59 (0.8,3.3)	4.26 (2.0,9.0)	8.04 (4.4,14.6)	11.84 (6.3,22.2)	14.50 (7.9,26.8)	21.32 (11.3,40.2)
Inc missing	2.18 (0.7,7.1)	0.23 (0.1,0.9)	0.92 (0.2,3.8)	3.04 (0.6,15.1)	5.61 (1.8,17.6)	9.24 (2.4,35.5)	11.16 (3.3,37.3)	12.28 (5.6,26.8)
<b>Race/Ethnicity</b>								
Mexican American	3.39 (2.3,4.9)	0.44 (0.2,0.9)	1.44 (0.8,2.6)	4.00 (2.4,6.6)	8.81 (6.0,12.9)	13.34 (9.5,18.7)	17.19 (12.3,24.0)	26.87 (18.2,39.6)
Other Hispanic	3.73 (2.0,6.8)	0.52 (0.2,1.3)	1.71 (0.8,3.5)	4.52 (2.6,7.9)	9.39 (5.5,15.9)	14.74 (7.3,29.7)	18.09 (9.2,35.7)	26.92 (13.1,55.3)
White	2.30 (1.6,3.2)	0.30 (0.1,0.6)	1.01 (0.6,1.8)	2.75 (1.8,4.2)	5.87 (4.1,8.3)	9.02 (6.6,12.3)	11.65 (8.4,16.2)	17.41 (12.5,24.2)
Black	2.80 (1.9,4.1)	0.42 (0.2,0.9)	1.33 (0.7,2.4)	3.45 (2.1,5.5)	7.07 (4.7,10.7)	10.59 (7.4,15.1)	13.59 (9.8,18.9)	19.89 (13.8,28.6)
Other race	4.75 (2.1,10.9)	0.78 (0.3,1.9)	2.56 (1.1,6.1)	6.07 (2.8,13.0)	12.05 (5.2,28.0)	17.02 (7.1,41.0)	20.49 (8.6,49.0)	30.94 (10.2,93.4)

612  
613

Table C-37. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.47 (0.8,2.7)	0.19 (0.1,0.5)	0.61 (0.3,1.5)	1.69 (0.8,3.5)	3.64 (1.9,7.1)	5.69 (3.2,10.0)	7.56 (4.5,12.6)	12.13 (7.4,19.9)
Northeast	3.65 (2.6,5.0)	0.56 (0.3,0.9)	1.81 (1.2,2.8)	4.63 (3.2,6.6)	9.09 (6.4,12.8)	13.48 (9.3,19.6)	17.02 (11.4,25.4)	25.27 (15.5,41.3)
South	3.14 (2.1,4.7)	0.45 (0.2,0.9)	1.46 (0.8,2.6)	3.88 (2.5,6.1)	8.07 (5.5,11.9)	12.09 (8.1,18.1)	15.39 (10.0,23.6)	22.40 (14.6,34.3)
West	2.73 (1.7,4.3)	0.40 (0.2,0.9)	1.28 (0.7,2.5)	3.24 (1.9,5.6)	6.94 (4.3,11.1)	10.36 (6.4,16.7)	13.34 (7.9,22.4)	20.64 (10.9,39.3)
<b>Coastal Status</b>								
Noncoastal	2.31 (1.7,3.1)	0.28 (0.1,0.6)	0.95 (0.6,1.6)	2.64 (1.8,3.9)	5.84 (4.2,8.0)	9.25 (6.5,13.2)	12.04 (8.1,17.9)	18.66 (11.8,29.6)
Coastal	3.31 (2.2,4.9)	0.52 (0.2,1.1)	1.63 (0.9,3.0)	4.12 (2.5,6.7)	8.38 (5.7,12.4)	12.33 (8.6,17.6)	15.68 (10.9,22.6)	22.64 (15.6,33.0)
<b>Coastal/Inland Region</b>								
Pacific	3.25 (1.8,5.7)	0.49 (0.2,1.1)	1.59 (0.8,3.3)	3.95 (2.1,7.3)	8.20 (4.6,14.7)	11.98 (6.6,21.6)	15.23 (8.2,28.4)	24.08 (10.3,56.5)
Atlantic	3.06 (1.6,6.0)	0.52 (0.2,1.5)	1.58 (0.6,4.0)	3.88 (1.8,8.3)	7.56 (3.8,15.0)	11.03 (6.1,19.9)	14.38 (8.9,23.1)	20.55 (12.8,33.0)
Gulf of Mexico	5.15 (2.6,10.0)	1.02 (0.3,3.3)	3.00 (1.1,7.9)	6.95 (3.3,14.9)	13.23 (7.0,25.1)	17.15 (10.2,29.0)	21.02 (12.2,36.1)	29.82 (17.5,50.7)
Great Lakes	2.33 (1.4,3.8)	0.32 (0.2,0.7)	1.02 (0.5,2.1)	2.75 (1.6,4.8)	5.85 (3.5,9.6)	8.98 (5.3,15.3)	11.31 (6.4,20.0)	16.76 (9.4,29.9)
Inland Northeast	4.00 (2.2,7.4)	0.56 (0.3,1.1)	1.89 (1.1,3.3)	5.07 (2.8,9.4)	10.11 (5.5,18.7)	14.86 (7.5,29.3)	18.50 (9.3,36.6)	28.42 (11.9,68.0)
Inland Midwest	1.23 (0.6,2.5)	0.17 (0.1,0.4)	0.54 (0.2,1.3)	1.43 (0.7,3.1)	3.05 (1.4,6.5)	4.72 (2.4,9.3)	6.12 (3.1,11.9)	10.23 (5.6,18.8)
Inland South	2.67 (1.6,4.5)	0.37 (0.2,0.8)	1.21 (0.7,2.2)	3.26 (1.9,5.7)	6.69 (4.1,10.9)	10.06 (6.0,16.9)	13.14 (7.2,23.9)	19.89 (10.6,37.5)
Inland West	2.22 (1.4,3.6)	0.33 (0.1,0.8)	1.04 (0.5,2.2)	2.58 (1.3,5.0)	5.47 (3.2,9.3)	8.69 (5.5,13.6)	11.22 (6.9,18.1)	16.99 (10.0,28.8)

614  
615

616  
617

Table C-38. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	3.29 (2.4,4.4)	0.59 (0.3,1.1)	1.66 (1.0,2.7)	4.07 (2.9,5.8)	8.23 (6.1,11.1)	12.08 (8.8,16.6)	15.25 (10.9,21.4)	22.56 (15.2,33.4)
<b>Gender</b>								
Female	2.80 (2.1,3.8)	0.51 (0.3,0.9)	1.44 (0.9,2.3)	3.46 (2.4,5.0)	6.87 (5.0,9.4)	10.17 (7.3,14.3)	12.79 (8.9,18.4)	19.30 (12.1,30.9)
Male	3.92 (2.8,5.4)	0.72 (0.4,1.5)	2.03 (1.2,3.4)	4.87 (3.3,7.3)	9.79 (7.0,13.6)	14.42 (10.3,20.3)	17.55 (12.6,24.4)	26.51 (17.1,41.2)
<b>Age</b>								
21 to <35 yrs	3.23 (2.2,4.6)	0.52 (0.3,1.0)	1.59 (1.0,2.6)	4.05 (2.6,6.2)	8.21 (5.6,12.1)	11.96 (8.2,17.4)	14.88 (10.4,21.3)	21.37 (15.3,29.9)
35 to <50 yrs	3.70 (2.5,5.4)	0.66 (0.3,1.3)	1.87 (1.1,3.1)	4.52 (3.0,6.8)	9.01 (6.2,13.2)	13.82 (8.7,22.0)	17.48 (10.5,29.0)	26.20 (14.0,48.9)
50 to <65 yrs	3.28 (2.1,5.1)	0.66 (0.3,1.6)	1.76 (0.9,3.5)	4.15 (2.5,6.9)	8.36 (5.7,12.2)	11.88 (8.2,17.2)	14.39 (9.9,20.8)	20.11 (13.7,29.4)
65+ yrs	2.59 (1.8,3.7)	0.47 (0.2,1.0)	1.29 (0.7,2.3)	3.14 (2.0,4.8)	6.45 (4.6,9.0)	9.44 (6.9,12.9)	11.99 (8.8,16.4)	18.19 (12.6,26.4)
<b>WCA (13-49 years)</b>	2.60 (1.8,3.7)	0.38 (0.2,0.7)	1.23 (0.8,2.0)	3.22 (2.2,4.8)	6.51 (4.6,9.1)	9.75 (6.7,14.2)	12.43 (8.2,18.8)	18.56 (11.7,29.4)
<b>Income</b>								
<\$20,000	2.66 (1.8,3.8)	0.40 (0.2,0.8)	1.26 (0.7,2.2)	3.27 (2.1,5.0)	6.68 (4.6,9.7)	10.42 (7.5,14.5)	13.28 (9.4,18.8)	18.46 (12.4,27.6)
>\$20,000	3.40 (2.5,4.6)	0.63 (0.3,1.2)	1.73 (1.0,2.9)	4.18 (2.9,6.1)	8.46 (6.2,11.6)	12.35 (8.9,17.1)	15.73 (10.9,22.7)	23.27 (15.1,35.9)
Income unknown	3.51 (1.8,6.7)	0.58 (0.3,1.3)	1.95 (0.8,4.7)	4.89 (2.0,12.0)	8.60 (4.7,15.9)	11.91 (6.9,20.5)	14.42 (8.4,24.8)	21.32 (11.3,40.2)
<b>Income, finer detail</b>								
<\$20,000	2.66 (1.8,3.8)	0.40 (0.2,0.8)	1.26 (0.7,2.2)	3.27 (2.1,5.0)	6.68 (4.6,9.7)	10.42 (7.5,14.5)	13.28 (9.4,18.8)	18.46 (12.4,27.6)
\$20k-\$45k	3.01 (2.1,4.2)	0.52 (0.3,1.0)	1.45 (0.9,2.4)	3.66 (2.5,5.4)	7.57 (5.3,10.8)	11.27 (7.6,16.7)	14.11 (9.7,20.5)	21.32 (13.8,32.9)
\$45k-\$75k	3.42 (2.2,5.2)	0.61 (0.3,1.2)	1.72 (1.0,3.0)	4.20 (2.6,6.7)	8.67 (5.4,13.9)	12.49 (7.9,19.6)	16.00 (9.7,26.4)	22.80 (14.3,36.5)
\$75k+	3.68 (2.5,5.4)	0.74 (0.3,1.8)	1.97 (1.0,3.8)	4.59 (2.8,7.5)	8.95 (6.0,13.3)	13.19 (9.3,18.8)	16.95 (11.6,24.8)	24.64 (15.3,39.6)
>\$20,000	3.66 (1.9,7.0)	0.81 (0.3,1.9)	1.88 (0.8,4.2)	4.43 (2.2,9.0)	9.04 (4.7,17.5)	13.08 (6.6,26.0)	15.69 (8.1,30.5)	25.94 (9.6,70.0)
Inc Ref/DK	3.80 (2.1,7.0)	0.72 (0.3,1.5)	2.07 (1.1,4.0)	5.08 (2.6,10.1)	9.55 (4.9,18.6)	13.65 (7.0,26.7)	15.92 (8.7,29.1)	23.16 (12.0,44.7)
Inc missing	2.85 (0.8,10.4)	0.32 (0.1,1.5)	1.56 (0.3,8.1)	4.08 (0.8,20.8)	7.72 (1.8,33.0)	11.16 (2.5,50.1)	11.86 (3.9,36.5)	14.22 (5.5,37.1)
<b>Race/Ethnicity</b>								
Mexican American	4.59 (3.2,6.6)	0.86 (0.4,1.7)	2.45 (1.4,4.3)	5.70 (3.6,9.1)	11.39 (8.0,16.2)	16.28 (11.6,22.9)	20.68 (14.7,29.0)	30.29 (20.2,45.5)
Other Hispanic	4.89 (2.8,8.7)	1.02 (0.5,2.2)	2.67 (1.5,4.8)	6.29 (3.6,11.1)	11.80 (6.8,20.3)	17.67 (8.5,36.7)	21.46 (10.5,43.7)	30.05 (15.0,60.3)
White	2.76 (2.0,3.9)	0.50 (0.2,1.0)	1.40 (0.8,2.5)	3.40 (2.2,5.1)	6.86 (4.9,9.6)	10.16 (7.4,13.9)	12.80 (9.3,17.7)	18.67 (13.3,26.1)
Black	3.54 (2.4,5.3)	0.74 (0.4,1.5)	2.00 (1.2,3.5)	4.56 (2.9,7.1)	8.64 (5.8,12.8)	12.45 (8.8,17.6)	15.60 (11.2,21.8)	21.65 (14.6,32.0)
Other race	5.99 (2.7,13.2)	1.48 (0.7,3.3)	3.66 (1.7,7.8)	7.55 (3.9,14.8)	14.86 (5.8,38.1)	19.80 (7.9,49.9)	24.47 (9.0,66.6)	36.74 (9.7,139.5)

618  
619

620  
621

Table C-38. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.80 (1.0,3.3)	0.32 (0.1,0.9)	0.87 (0.3,2.2)	2.17 (1.1,4.3)	4.40 (2.4,8.1)	6.70 (3.9,11.4)	8.62 (5.2,14.3)	12.97 (7.6,22.1)
Northeast	4.37 (3.2,6.0)	0.94 (0.6,1.6)	2.51 (1.6,3.8)	5.61 (4.0,7.9)	10.70 (7.5,15.2)	14.86 (10.3,21.5)	18.23 (12.5,26.5)	26.51 (16.8,41.9)
South	3.82 (2.6,5.6)	0.76 (0.4,1.5)	2.09 (1.2,3.6)	4.80 (3.1,7.4)	9.47 (6.5,13.8)	13.76 (9.3,20.5)	16.81 (11.5,24.6)	24.79 (15.6,39.3)
West	3.40 (2.1,5.4)	0.68 (0.3,1.4)	1.82 (1.0,3.3)	4.18 (2.5,6.9)	8.39 (5.1,13.7)	12.01 (7.2,20.1)	15.18 (8.7,26.5)	22.90 (11.6,45.4)
<b>Coastal Status</b>								
Noncoastal	2.83 (2.1,3.8)	0.47 (0.2,0.9)	1.36 (0.8,2.2)	3.38 (2.4,4.8)	6.99 (5.1,9.6)	10.69 (7.4,15.5)	13.50 (9.1,20.1)	20.73 (12.7,33.8)
Coastal	4.02 (2.7,6.0)	0.86 (0.4,1.8)	2.29 (1.3,4.1)	5.09 (3.2,8.2)	9.73 (6.7,14.2)	14.09 (9.9,20.1)	17.09 (12.1,24.2)	24.90 (16.7,37.1)
<b>Coastal/Inland Region</b>								
Pacific	3.94 (2.2,7.0)	0.84 (0.4,1.9)	2.24 (1.1,4.5)	4.96 (2.7,9.1)	9.38 (5.3,16.7)	13.77 (7.3,26.0)	16.70 (8.9,31.2)	26.68 (10.5,68.1)
Atlantic	3.68 (1.9,7.2)	0.84 (0.3,2.6)	2.19 (0.9,5.2)	4.69 (2.2,10.2)	8.65 (4.4,17.1)	12.44 (7.1,21.9)	15.68 (9.7,25.4)	22.00 (13.6,35.6)
Gulf of Mexico	6.34 (3.4,11.9)	1.72 (0.6,5.2)	4.28 (1.8,10.3)	8.71 (4.4,17.3)	15.08 (8.4,26.9)	19.41 (11.5,32.8)	22.47 (13.8,36.5)	30.53 (18.9,49.3)
Great Lakes	2.91 (1.8,4.7)	0.60 (0.3,1.3)	1.57 (0.8,3.0)	3.47 (2.0,6.1)	7.08 (4.3,11.6)	10.14 (6.1,16.9)	12.55 (7.4,21.4)	19.78 (9.6,40.6)
Inland Northeast	4.74 (2.7,8.5)	0.93 (0.5,1.8)	2.63 (1.5,4.6)	6.14 (3.5,10.8)	11.79 (6.2,22.3)	15.92 (8.8,28.8)	19.70 (10.6,36.7)	29.62 (13.7,64.2)
Inland Midwest	1.51 (0.7,3.1)	0.28 (0.1,0.8)	0.75 (0.3,1.9)	1.83 (0.8,3.9)	3.64 (1.7,7.6)	5.50 (2.8,10.7)	7.04 (3.7,13.5)	11.20 (6.0,20.9)
Inland South	3.29 (2.0,5.5)	0.63 (0.3,1.3)	1.73 (1.0,3.1)	4.07 (2.5,6.7)	8.11 (4.8,13.8)	11.72 (6.7,20.4)	14.81 (8.2,26.8)	22.44 (11.1,45.5)
Inland West	2.81 (1.8,4.4)	0.59 (0.3,1.3)	1.50 (0.8,2.9)	3.39 (2.0,5.9)	6.61 (4.1,10.6)	10.37 (6.3,17.0)	12.96 (7.8,21.5)	18.56 (11.0,31.2)

622

623  
624

Table C-39. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	1.22 (0.8,1.9)	0.13 (0.1,0.3)	0.42 (0.2,0.8)	1.24 (0.8,2.0)	3.02 (2.0,4.6)	4.96 (3.2,7.7)	6.76 (4.2,10.9)	11.83 (6.3,22.2)
<b>Gender</b>								
Female	1.03 (0.6,1.7)	0.11 (0.0,0.2)	0.35 (0.2,0.6)	1.07 (0.6,1.8)	2.65 (1.6,4.4)	4.30 (2.5,7.3)	5.76 (3.3,10.2)	9.66 (4.9,18.9)
Male	1.41 (0.9,2.2)	0.16 (0.1,0.3)	0.50 (0.3,0.9)	1.46 (0.9,2.4)	3.40 (2.2,5.3)	5.69 (3.7,8.8)	7.84 (4.8,12.7)	14.16 (7.0,28.9)
<b>Age</b>								
1 to <3 yrs	0.64 (0.3,1.3)	0.07 (0.0,0.2)	0.23 (0.1,0.5)	0.65 (0.3,1.3)	1.62 (0.8,3.4)	2.76 (1.1,6.9)	3.70 (1.5,9.3)	5.88 (2.4,14.5)
3 to <6 yrs	0.89 (0.5,1.5)	0.11 (0.1,0.2)	0.35 (0.2,0.7)	0.98 (0.6,1.7)	2.35 (1.4,4.0)	3.50 (2.2,5.6)	4.53 (2.8,7.3)	7.48 (4.6,12.1)
6 to <11 yrs	0.98 (0.5,1.8)	0.11 (0.0,0.3)	0.36 (0.2,0.8)	1.07 (0.6,2.0)	2.50 (1.4,4.6)	3.92 (2.2,7.1)	5.33 (2.8,10.2)	8.91 (4.1,19.6)
11 to <16 yrs	1.28 (0.6,2.6)	0.15 (0.0,0.5)	0.50 (0.2,1.3)	1.42 (0.6,3.3)	3.14 (1.4,7.1)	5.14 (2.6,10.1)	6.61 (3.4,12.9)	10.45 (5.4,20.3)
16 to <18 yrs	1.18 (0.7,2.1)	0.14 (0.1,0.3)	0.42 (0.2,1.0)	1.23 (0.6,2.5)	3.02 (1.6,5.6)	4.94 (2.7,9.0)	6.70 (3.6,12.3)	11.31 (5.4,23.8)
18 to <21 yrs	2.28 (1.0,5.3)	0.24 (0.1,0.5)	0.82 (0.4,1.7)	2.41 (1.2,4.8)	5.86 (2.5,13.8)	8.98 (3.8,21.0)	12.91 (4.3,39.2)	22.29 (5.6,88.1)
<b>Income</b>								
<\$20,000	1.25 (0.8,2.0)	0.13 (0.1,0.3)	0.43 (0.2,0.8)	1.26 (0.7,2.1)	3.05 (2.0,4.7)	5.10 (3.1,8.3)	6.91 (4.1,11.8)	12.86 (5.6,29.8)
>\$20,000	1.20 (0.8,1.9)	0.12 (0.1,0.3)	0.41 (0.2,0.7)	1.21 (0.7,2.0)	2.98 (1.9,4.6)	4.89 (3.1,7.7)	6.72 (4.1,10.9)	11.55 (6.3,21.0)
Income unknown	1.39 (0.6,3.1)	0.21 (0.1,0.9)	0.62 (0.2,2.0)	1.68 (0.6,4.9)	3.41 (1.5,7.6)	5.26 (2.5,11.1)	7.05 (3.1,16.3)	9.57 (3.7,24.8)
<b>Income, finer detail</b>								
<\$20,000	1.25 (0.8,2.0)	0.13 (0.1,0.3)	0.43 (0.2,0.8)	1.26 (0.7,2.1)	3.05 (2.0,4.7)	5.10 (3.1,8.3)	6.91 (4.1,11.8)	12.86 (5.6,29.8)
\$20k-\$45k	1.27 (0.7,2.3)	0.13 (0.1,0.3)	0.42 (0.2,0.8)	1.23 (0.7,2.2)	3.09 (1.7,5.5)	4.99 (2.9,8.7)	6.88 (3.8,12.4)	13.34 (5.2,34.5)
\$45k-\$75k	1.13 (0.7,1.9)	0.12 (0.1,0.3)	0.39 (0.2,0.8)	1.14 (0.6,2.0)	2.78 (1.7,4.6)	4.53 (2.8,7.4)	6.46 (3.7,11.4)	10.32 (6.1,17.4)
\$75k+	1.14 (0.7,1.8)	0.12 (0.0,0.3)	0.39 (0.2,0.8)	1.20 (0.7,2.2)	2.86 (1.8,4.6)	4.89 (3.1,7.7)	6.55 (4.1,10.4)	10.28 (6.1,17.4)
>\$20,000	1.99 (0.7,5.8)	0.28 (0.1,0.9)	0.86 (0.3,2.3)	2.45 (0.8,7.3)	4.82 (1.8,13.1)	7.36 (2.5,21.7)	9.93 (3.0,33.0)	17.64 (3.1,101.6)
Inc Ref/DK	1.64 (0.6,4.3)	0.25 (0.1,0.8)	0.78 (0.2,2.8)	2.11 (0.6,7.8)	4.46 (1.4,14.1)	6.36 (2.3,17.4)	7.83 (3.0,20.6)	11.67 (4.6,29.6)
Inc missing	1.05 (0.3,3.2)	0.15 (0.0,0.9)	0.50 (0.1,2.8)	1.40 (0.3,7.0)	2.90 (0.7,12.4)	3.39 (0.9,12.8)	4.30 (1.1,17.0)	6.39 (1.1,38.2)
<b>Race/Ethnicity</b>								
Mexican American	1.56 (1.0,2.6)	0.21 (0.1,0.5)	0.61 (0.3,1.3)	1.66 (0.9,3.1)	3.82 (2.3,6.4)	6.21 (3.8,10.0)	8.46 (5.2,13.8)	13.92 (8.4,23.1)
Other Hispanic	1.63 (0.7,3.6)	0.19 (0.1,0.4)	0.63 (0.2,1.6)	1.89 (0.8,4.7)	4.02 (2.0,8.0)	6.54 (3.0,14.4)	8.81 (3.7,21.0)	13.12 (6.1,28.1)
White	0.96 (0.6,1.5)	0.10 (0.0,0.2)	0.31 (0.2,0.6)	0.95 (0.6,1.6)	2.31 (1.5,3.6)	3.85 (2.5,6.0)	5.32 (3.4,8.4)	9.22 (5.4,15.7)
Black	1.31 (0.8,2.1)	0.18 (0.1,0.4)	0.55 (0.3,1.1)	1.47 (0.8,2.6)	3.21 (1.9,5.3)	5.02 (3.2,8.0)	6.60 (4.1,10.5)	11.38 (6.8,19.0)
Other race	2.13 (0.8,5.6)	0.28 (0.1,0.9)	0.91 (0.4,2.4)	2.56 (1.0,6.7)	5.68 (2.0,16.3)	8.01 (3.2,20.3)	11.31 (3.3,38.3)	14.48 (6.2,34.1)

625  
626

Table C-39. Trophic level 2 freshwater + estuarine fish usual fish consumption rate estimates, youth &lt;21 year (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.63 (0.3,1.4)	0.07 (0.0,0.2)	0.21 (0.1,0.5)	0.62 (0.3,1.5)	1.53 (0.7,3.6)	2.63 (1.2,5.7)	3.49 (1.6,7.8)	6.08 (2.7,13.5)
Northeast	1.78 (1.0,3.3)	0.21 (0.1,0.4)	0.64 (0.4,1.1)	1.79 (1.2,2.7)	4.46 (2.4,8.2)	7.34 (3.3,16.3)	9.38 (4.4,20.2)	19.63 (4.2,92.7)
South	1.39 (0.8,2.4)	0.16 (0.1,0.4)	0.52 (0.3,1.0)	1.53 (0.8,2.8)	3.45 (2.1,5.8)	5.57 (3.2,9.6)	7.30 (4.3,12.4)	12.52 (6.6,23.9)
West	1.22 (0.7,2.1)	0.15 (0.1,0.4)	0.46 (0.2,1.0)	1.35 (0.7,2.5)	3.06 (1.7,5.4)	4.94 (2.8,8.7)	6.65 (3.7,11.9)	11.09 (6.0,20.7)
<b>Coastal Status</b>								
Noncoastal	1.03 (0.7,1.6)	0.10 (0.0,0.2)	0.34 (0.2,0.6)	1.02 (0.6,1.7)	2.44 (1.6,3.8)	4.07 (2.7,6.2)	5.69 (3.5,9.1)	10.05 (5.5,18.4)
Coastal	1.52 (0.9,2.5)	0.19 (0.1,0.4)	0.58 (0.3,1.1)	1.69 (1.0,2.9)	3.82 (2.3,6.2)	6.19 (3.7,10.4)	8.01 (4.8,13.2)	13.08 (7.5,22.7)
<b>Coastal/Inland Region</b>								
Pacific	1.46 (0.8,2.7)	0.17 (0.1,0.4)	0.55 (0.3,1.2)	1.62 (0.8,3.2)	3.67 (1.9,7.0)	6.11 (3.0,12.5)	7.83 (3.9,15.7)	13.08 (5.5,31.0)
Atlantic	1.37 (0.8,2.4)	0.18 (0.1,0.4)	0.54 (0.2,1.2)	1.56 (0.8,3.0)	3.29 (1.7,6.2)	5.39 (3.1,9.2)	6.83 (4.0,11.7)	11.52 (6.8,19.6)
Gulf of Mexico	2.51 (1.1,5.9)	0.41 (0.1,1.4)	1.15 (0.4,3.3)	2.98 (1.2,7.7)	6.31 (2.6,15.1)	8.93 (4.2,19.1)	12.27 (5.2,28.7)	19.16 (7.9,46.5)
Great Lakes	1.04 (0.5,2.1)	0.12 (0.0,0.3)	0.36 (0.2,0.8)	1.00 (0.4,2.5)	2.69 (1.3,5.5)	4.11 (1.9,8.8)	5.78 (2.7,12.4)	10.72 (4.1,27.8)
Inland Northeast	2.03 (0.8,5.5)	0.22 (0.1,0.4)	0.68 (0.4,1.3)	1.94 (1.1,3.5)	5.18 (1.9,14.4)	8.56 (2.5,28.8)	10.22 (3.8,27.5)	22.56 (3.2,160.0)
Inland Midwest	0.51 (0.2,1.1)	0.06 (0.0,0.2)	0.18 (0.1,0.5)	0.53 (0.2,1.2)	1.25 (0.5,2.9)	2.06 (0.9,4.5)	2.78 (1.3,6.1)	4.26 (1.6,11.1)
Inland South	1.10 (0.6,2.0)	0.13 (0.1,0.3)	0.41 (0.2,0.8)	1.17 (0.7,2.1)	2.75 (1.6,4.8)	4.32 (2.4,7.7)	5.76 (3.1,10.7)	10.27 (4.3,24.2)
Inland West	1.02 (0.5,1.9)	0.13 (0.1,0.3)	0.40 (0.2,0.9)	1.13 (0.5,2.4)	2.44 (1.2,5.1)	4.01 (2.1,7.8)	5.10 (2.6,9.9)	8.98 (5.0,16.0)

627  
628

629  
630

Table C-40. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	3.30 (2.4,4.5)	0.53 (0.3,1.0)	1.63 (1.0,2.7)	4.09 (2.9,5.8)	8.23 (6.0,11.3)	12.15 (8.5,17.4)	15.41 (10.2,23.4)	22.99 (13.9,38.0)
<b>Gender</b>								
Female	2.73 (1.9,3.9)	0.44 (0.2,0.9)	1.39 (0.8,2.5)	3.42 (2.3,5.2)	6.84 (4.9,9.6)	9.96 (7.1,14.1)	12.39 (8.5,18.0)	18.65 (11.8,29.5)
Male	3.99 (2.9,5.5)	0.66 (0.4,1.1)	2.00 (1.3,3.1)	5.03 (3.7,6.9)	9.93 (7.1,13.9)	14.66 (9.5,22.6)	18.26 (11.4,29.4)	27.22 (15.0,49.3)
<b>Age</b>								
1 to <3 yrs	0.76 (0.4,1.7)	0.10 (0.0,0.2)	0.29 (0.2,0.6)	0.83 (0.4,1.6)	1.87 (0.9,4.0)	3.00 (1.3,7.2)	4.17 (1.5,11.6)	6.99 (2.1,22.7)
3 to <6 yrs	1.01 (0.6,1.7)	0.13 (0.1,0.3)	0.42 (0.2,0.8)	1.15 (0.7,2.0)	2.53 (1.5,4.3)	3.91 (2.3,6.8)	5.39 (2.8,10.2)	8.39 (4.2,16.7)
6 to <11 yrs	1.45 (0.9,2.3)	0.21 (0.1,0.5)	0.62 (0.3,1.3)	1.62 (0.8,3.2)	3.66 (2.3,5.8)	5.79 (3.8,8.8)	7.61 (4.7,12.2)	12.50 (6.6,23.7)
11 to <16 yrs	1.56 (0.9,2.7)	0.19 (0.1,0.6)	0.63 (0.3,1.4)	1.73 (0.9,3.4)	3.95 (2.3,6.9)	6.12 (3.4,10.9)	8.10 (4.4,15.0)	12.47 (6.7,23.2)
16 to <18 yrs	1.64 (1.0,2.7)	0.23 (0.1,0.6)	0.72 (0.4,1.4)	2.06 (1.2,3.5)	4.18 (2.5,6.9)	6.18 (3.7,10.2)	7.85 (4.7,13.2)	12.70 (7.2,22.3)
18 to <21 yrs	2.98 (1.2,7.4)	0.42 (0.2,0.9)	1.35 (0.6,3.1)	3.30 (1.7,6.5)	7.19 (3.1,16.4)	11.94 (3.6,39.5)	15.91 (4.1,62.0)	26.16 (5.3,130.0)
21 to <35 yrs	3.93 (2.6,5.9)	0.77 (0.5,1.2)	2.08 (1.4,3.0)	4.95 (3.4,7.1)	9.43 (6.2,14.4)	13.88 (8.1,23.7)	17.63 (9.5,32.7)	25.99 (13.4,50.4)
35 to <50 yrs	3.89 (2.6,5.9)	0.88 (0.4,1.9)	2.20 (1.1,4.2)	5.00 (3.2,7.8)	9.34 (6.3,13.8)	13.30 (8.9,19.8)	16.75 (11.0,25.5)	23.34 (14.8,36.8)
50 to <65 yrs	4.76 (3.3,6.8)	1.20 (0.6,2.5)	2.87 (1.7,4.9)	5.98 (4.0,8.9)	11.08 (7.7,16.0)	15.75 (10.0,24.8)	19.30 (11.6,32.0)	28.05 (14.7,53.6)
65+ yrs	3.18 (2.1,4.8)	0.71 (0.3,1.8)	1.78 (0.9,3.7)	4.01 (2.5,6.5)	7.53 (5.1,11.2)	10.80 (7.4,15.7)	13.68 (9.3,20.0)	20.24 (12.5,32.8)
<b>Income</b>								
<\$20,000	3.41 (2.5,4.7)	0.50 (0.3,0.9)	1.57 (1.0,2.5)	4.11 (3.0,5.7)	8.48 (6.2,11.5)	12.97 (8.5,19.8)	16.48 (10.1,26.8)	25.89 (13.0,51.5)
>\$20,000	3.21 (2.3,4.5)	0.53 (0.3,1.0)	1.61 (0.9,2.8)	3.99 (2.7,5.9)	8.01 (5.7,11.2)	11.73 (8.2,16.7)	14.86 (9.9,22.2)	22.10 (13.7,35.7)
Income unknown	4.94 (2.4,10.3)	0.90 (0.4,2.1)	2.71 (1.2,6.2)	6.63 (2.9,15.1)	12.08 (6.0,24.4)	17.50 (8.1,37.8)	21.17 (9.8,45.6)	28.43 (14.9,54.4)
<b>Income, finer detail</b>								
<\$20,000	3.41 (2.5,4.7)	0.50 (0.3,0.9)	1.57 (1.0,2.5)	4.11 (3.0,5.7)	8.48 (6.2,11.5)	12.97 (8.5,19.8)	16.48 (10.1,26.8)	25.89 (13.0,51.5)
\$20k-\$45k	2.83 (2.0,4.0)	0.46 (0.2,0.8)	1.40 (0.8,2.3)	3.57 (2.5,5.1)	7.04 (5.0,10.0)	10.27 (7.1,14.8)	13.10 (8.6,19.9)	19.69 (12.2,31.7)
\$45k-\$75k	3.16 (2.2,4.5)	0.47 (0.2,1.0)	1.53 (0.9,2.7)	3.92 (2.6,5.8)	8.06 (5.5,11.8)	11.59 (7.7,17.4)	14.72 (9.3,23.4)	21.52 (12.7,36.5)
\$75k+	3.56 (2.4,5.3)	0.64 (0.3,1.3)	1.85 (0.9,3.8)	4.42 (2.6,7.5)	8.72 (5.9,12.8)	13.00 (9.0,18.7)	16.45 (10.9,24.8)	24.47 (14.7,40.7)
>\$20,000	3.30 (1.1,9.6)	0.65 (0.2,1.8)	1.71 (0.8,3.7)	4.15 (1.6,10.6)	8.25 (2.5,26.8)	11.13 (3.6,34.4)	14.44 (3.8,55.4)	20.65 (5.0,85.2)
Inc Ref/DK	4.70 (2.0,10.9)	0.87 (0.4,2.0)	2.58 (1.1,5.9)	6.30 (2.6,15.1)	11.51 (5.0,26.3)	16.75 (6.4,43.8)	19.63 (7.9,48.7)	26.92 (10.2,71.1)
Inc missing	5.40 (1.8,16.4)	0.93 (0.2,3.8)	2.99 (0.8,11.7)	7.51 (2.0,28.4)	13.54 (4.5,40.6)	17.76 (6.8,46.6)	24.69 (8.0,76.1)	34.15 (11.8,99.1)
<b>Race/Ethnicity</b>								
Mexican American	3.37 (2.3,5.0)	0.52 (0.3,1.0)	1.62 (0.9,2.8)	4.15 (2.6,6.5)	8.43 (5.7,12.5)	12.57 (8.6,18.4)	15.76 (10.6,23.3)	23.41 (14.9,36.9)
Other Hispanic	3.59 (2.1,6.0)	0.59 (0.3,1.1)	1.95 (1.1,3.6)	4.72 (2.7,8.1)	8.86 (5.4,14.5)	12.75 (7.4,22.1)	15.45 (9.0,26.6)	22.63 (12.1,42.3)
White	2.72 (1.9,3.9)	0.45 (0.2,0.9)	1.38 (0.8,2.5)	3.36 (2.1,5.3)	6.75 (4.8,9.6)	9.80 (6.9,14.0)	12.50 (8.4,18.6)	18.99 (11.5,31.3)
Black	4.23 (3.1,5.9)	0.81 (0.4,1.5)	2.38 (1.5,3.9)	5.39 (3.6,8.0)	10.39 (7.6,14.2)	14.58 (10.5,20.3)	18.02 (12.6,25.8)	26.51 (16.9,41.5)
Other race	7.18 (3.9,13.3)	1.63 (0.9,3.0)	4.57 (2.8,7.6)	9.68 (5.6,16.7)	16.94 (8.8,32.7)	23.34 (10.7,50.8)	27.55 (12.5,60.9)	39.74 (14.4,110.0)

631  
632

Table C-40. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.01 (1.3,3.1)	0.32 (0.2,0.6)	0.98 (0.5,1.8)	2.47 (1.5,4.0)	4.97 (3.3,7.5)	7.23 (4.8,11.0)	9.45 (5.9,15.2)	14.30 (8.3,24.7)
Northeast	3.67 (2.6,5.2)	0.61 (0.3,1.2)	1.93 (1.1,3.4)	4.65 (3.1,6.9)	9.34 (6.3,13.8)	13.62 (8.1,22.8)	16.45 (9.6,28.1)	23.94 (12.3,46.7)
South	4.13 (2.9,5.8)	0.72 (0.4,1.2)	2.10 (1.3,3.5)	5.19 (3.6,7.5)	10.16 (7.2,14.3)	14.86 (10.1,21.9)	18.80 (12.2,29.0)	28.68 (16.0,51.4)
West	3.22 (2.1,5.0)	0.59 (0.3,1.3)	1.73 (0.9,3.4)	4.24 (2.7,6.7)	8.02 (5.1,12.6)	11.29 (7.0,18.3)	14.11 (8.3,23.9)	20.15 (10.8,37.5)
<b>Coastal Status</b>								
Noncoastal	2.69 (1.9,3.8)	0.43 (0.2,0.8)	1.33 (0.8,2.3)	3.30 (2.2,5.0)	6.74 (4.8,9.4)	9.80 (6.7,14.3)	12.74 (7.9,20.5)	18.80 (10.7,33.1)
Coastal	4.26 (3.1,5.9)	0.78 (0.4,1.4)	2.28 (1.3,3.9)	5.40 (3.6,8.0)	10.48 (7.5,14.6)	15.16 (10.6,21.6)	18.85 (12.7,28.0)	27.79 (16.8,45.9)
<b>Coastal/Inland Region</b>								
Pacific	3.54 (2.1,6.0)	0.66 (0.3,1.5)	1.97 (1.0,3.9)	4.72 (2.7,8.3)	8.72 (5.1,15.0)	12.05 (7.0,20.9)	14.99 (8.4,26.8)	21.41 (10.9,42.1)
Atlantic	4.16 (2.6,6.8)	0.84 (0.3,2.2)	2.34 (1.0,5.4)	5.27 (2.8,10.0)	10.22 (6.6,15.8)	14.66 (9.6,22.3)	18.08 (11.5,28.4)	26.76 (14.2,50.3)
Gulf of Mexico	7.64 (4.5,13.1)	1.69 (0.6,4.8)	4.81 (2.2,10.6)	10.30 (5.7,18.5)	18.24 (11.2,29.8)	24.73 (15.4,39.8)	29.89 (17.7,50.4)	41.81 (21.8,80.2)
Great Lakes	2.79 (1.8,4.4)	0.48 (0.2,1.0)	1.46 (0.7,2.9)	3.59 (2.2,5.9)	6.86 (4.4,10.8)	9.95 (6.0,16.4)	12.14 (7.3,20.2)	17.74 (10.0,31.6)
Inland Northeast	3.05 (2.0,4.6)	0.49 (0.2,1.2)	1.55 (0.7,3.5)	3.70 (1.9,7.0)	7.66 (5.2,11.2)	11.23 (7.4,17.0)	14.03 (8.7,22.7)	20.19 (11.2,36.5)
Inland Midwest	1.79 (1.1,2.8)	0.29 (0.2,0.5)	0.88 (0.5,1.6)	2.19 (1.4,3.5)	4.53 (2.8,7.3)	6.36 (4.0,10.1)	8.35 (4.8,14.5)	13.53 (6.0,30.5)
Inland South	3.29 (2.3,4.7)	0.55 (0.3,0.9)	1.71 (1.1,2.6)	4.12 (2.9,5.8)	8.16 (5.6,11.9)	11.56 (7.5,17.8)	14.61 (8.8,24.4)	22.56 (11.0,46.4)
Inland West	2.91 (1.8,4.8)	0.54 (0.2,1.4)	1.52 (0.6,3.6)	3.70 (2.1,6.5)	7.29 (4.5,11.9)	10.18 (6.0,17.2)	12.97 (7.3,23.1)	19.32 (9.4,39.7)

633  
634

635  
636

Table C-41. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	3.99 (2.9,5.4)	0.87 (0.5,1.7)	2.24 (1.3,3.7)	5.06 (3.6,7.1)	9.51 (7.0,13.0)	13.78 (9.5,20.1)	17.31 (11.1,27.0)	25.10 (14.9,42.2)
<b>Gender</b>								
Female	3.26 (2.3,4.7)	0.73 (0.4,1.5)	1.87 (1.1,3.3)	4.18 (2.8,6.2)	7.77 (5.5,11.0)	10.90 (7.7,15.5)	13.77 (9.4,20.2)	19.84 (12.5,31.4)
Male	4.93 (3.6,6.8)	1.13 (0.6,2.1)	2.86 (1.9,4.4)	6.30 (4.6,8.6)	11.83 (8.3,17.0)	16.88 (10.6,26.8)	20.52 (12.6,33.4)	29.34 (16.5,52.3)
<b>Age</b>								
21 to <35 yrs	3.93 (2.6,5.9)	0.77 (0.5,1.2)	2.08 (1.4,3.0)	4.95 (3.4,7.1)	9.43 (6.2,14.4)	13.88 (8.1,23.7)	17.63 (9.5,32.7)	25.99 (13.4,50.4)
35 to <50 yrs	3.89 (2.6,5.9)	0.88 (0.4,1.9)	2.20 (1.1,4.2)	5.00 (3.2,7.8)	9.34 (6.3,13.8)	13.30 (8.9,19.8)	16.75 (11.0,25.5)	23.34 (14.8,36.8)
50 to <65 yrs	4.76 (3.3,6.8)	1.20 (0.6,2.5)	2.87 (1.7,4.9)	5.98 (4.0,8.9)	11.08 (7.7,16.0)	15.75 (10.0,24.8)	19.30 (11.6,32.0)	28.05 (14.7,53.6)
65+ yrs	3.18 (2.1,4.8)	0.71 (0.3,1.8)	1.78 (0.9,3.7)	4.01 (2.5,6.5)	7.53 (5.1,11.2)	10.80 (7.4,15.7)	13.68 (9.3,20.0)	20.24 (12.5,32.8)
<b>WCA (13-49 years)</b>	2.91 (2.1,4.1)	0.52 (0.3,1.0)	1.56 (1.0,2.6)	3.69 (2.6,5.3)	7.24 (5.2,10.1)	10.41 (7.3,14.8)	12.89 (8.7,19.0)	19.19 (12.0,30.7)
<b>Income</b>								
<\$20,000	4.11 (3.0,5.6)	0.78 (0.4,1.3)	2.11 (1.3,3.5)	5.04 (3.6,7.0)	9.96 (7.3,13.6)	14.80 (9.7,22.7)	18.28 (11.6,28.9)	28.09 (14.5,54.3)
>\$20,000	3.90 (2.8,5.4)	0.88 (0.4,1.8)	2.23 (1.3,3.8)	4.96 (3.5,7.1)	9.26 (6.7,12.9)	13.23 (9.2,19.1)	16.71 (10.9,25.7)	23.72 (14.9,37.8)
Income unknown	5.86 (2.8,12.3)	1.40 (0.5,3.6)	3.72 (1.6,8.7)	8.13 (3.4,19.2)	14.08 (6.5,30.6)	18.10 (9.5,34.5)	23.55 (9.9,56.2)	31.98 (14.0,72.8)
<b>Income, finer detail</b>								
<\$20,000	4.11 (3.0,5.6)	0.78 (0.4,1.3)	2.11 (1.3,3.5)	5.04 (3.6,7.0)	9.96 (7.3,13.6)	14.80 (9.7,22.7)	18.28 (11.6,28.9)	28.09 (14.5,54.3)
\$20k-\$45k	3.37 (2.4,4.8)	0.73 (0.4,1.4)	1.90 (1.1,3.1)	4.31 (3.0,6.2)	8.08 (5.7,11.5)	11.47 (7.9,16.7)	14.45 (9.5,22.1)	20.96 (13.3,32.9)
\$45k-\$75k	3.85 (2.7,5.5)	0.81 (0.4,1.6)	2.16 (1.3,3.5)	4.97 (3.4,7.2)	9.25 (6.3,13.5)	13.20 (8.6,20.3)	16.37 (10.2,26.4)	22.88 (13.9,37.7)
\$75k+	4.38 (2.9,6.6)	1.09 (0.4,2.8)	2.59 (1.3,5.3)	5.45 (3.2,9.2)	10.36 (7.3,14.8)	14.53 (10.0,21.2)	18.44 (11.9,28.5)	27.05 (15.4,47.5)
>\$20,000	3.74 (1.4,9.8)	0.86 (0.4,1.9)	2.14 (1.0,4.5)	4.91 (1.9,12.7)	9.23 (2.9,29.3)	11.96 (4.1,35.2)	15.82 (4.0,62.0)	22.55 (5.2,97.4)
Inc Ref/DK	5.47 (2.5,12.2)	1.26 (0.6,2.8)	3.55 (1.5,8.5)	7.58 (3.2,18.0)	12.57 (5.9,26.8)	17.92 (7.5,43.1)	21.03 (8.6,51.2)	26.92 (11.4,63.8)
Inc missing	6.74 (2.1,21.6)	1.76 (0.3,9.9)	4.00 (1.2,13.7)	9.49 (2.6,35.0)	16.15 (4.9,53.1)	22.63 (6.4,80.3)	28.43 (7.4,108.7)	34.26 (12.3,95.6)
<b>Race/Ethnicity</b>								
Mexican American	4.47 (3.0,6.7)	1.00 (0.5,1.9)	2.69 (1.6,4.5)	5.80 (3.8,8.9)	10.67 (7.3,15.6)	15.01 (10.2,22.0)	18.15 (11.9,27.6)	27.04 (16.5,44.2)
Other Hispanic	4.66 (2.8,7.7)	1.20 (0.6,2.3)	2.87 (1.6,5.0)	6.19 (3.8,10.2)	10.70 (6.6,17.4)	14.69 (8.7,24.8)	18.39 (10.1,33.5)	25.99 (12.8,52.7)
White	3.24 (2.3,4.6)	0.75 (0.4,1.5)	1.86 (1.0,3.4)	4.12 (2.7,6.2)	7.69 (5.4,11.0)	10.83 (7.6,15.5)	13.91 (9.1,21.2)	20.39 (12.3,33.8)
Black	5.26 (3.8,7.4)	1.38 (0.7,2.7)	3.36 (2.1,5.5)	6.82 (4.7,10.0)	12.17 (8.7,16.9)	16.85 (11.9,23.9)	20.27 (13.8,29.7)	29.04 (18.0,46.9)
Other race	8.89 (5.1,15.6)	3.07 (1.8,5.4)	6.35 (4.0,10.1)	12.01 (6.9,20.8)	19.39 (10.4,36.3)	26.51 (11.8,59.4)	29.82 (14.7,60.5)	44.69 (14.3,139.4)

637  
638

639  
640

**Table C-41. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)**

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.45 (1.6,3.7)	0.54 (0.3,1.2)	1.37 (0.7,2.6)	3.05 (1.9,4.9)	5.73 (3.8,8.7)	8.44 (5.4,13.1)	10.73 (6.5,17.8)	15.82 (8.9,28.2)
Northeast	4.39 (3.1,6.2)	1.02 (0.5,2.2)	2.60 (1.4,4.7)	5.54 (3.7,8.4)	10.70 (7.3,15.8)	15.01 (9.0,24.9)	17.92 (10.6,30.4)	24.92 (13.7,45.5)
South	5.00 (3.6,6.9)	1.16 (0.7,2.1)	2.86 (1.8,4.7)	6.36 (4.5,9.0)	11.89 (8.4,16.9)	17.04 (11.2,25.8)	21.18 (13.3,33.9)	30.86 (17.3,55.1)
West	3.90 (2.5,6.0)	1.00 (0.5,2.1)	2.42 (1.4,4.3)	5.14 (3.3,8.0)	8.97 (5.7,14.2)	12.60 (7.7,20.5)	15.39 (9.1,26.1)	21.43 (11.5,39.8)
<b>Coastal Status</b>								
Noncoastal	3.30 (2.4,4.6)	0.72 (0.4,1.4)	1.85 (1.1,3.2)	4.15 (2.9,6.0)	7.93 (5.6,11.1)	11.29 (7.6,16.8)	14.08 (8.8,22.5)	20.71 (11.6,37.1)
Coastal	5.09 (3.6,7.1)	1.24 (0.6,2.6)	3.08 (1.8,5.2)	6.56 (4.5,9.6)	11.97 (8.6,16.6)	17.10 (11.7,25.0)	20.70 (13.8,31.1)	29.55 (18.0,48.6)
<b>Coastal/Inland Region</b>								
Pacific	4.17 (2.4,7.2)	1.07 (0.5,2.4)	2.66 (1.4,5.1)	5.52 (3.1,9.8)	9.67 (5.6,16.7)	13.01 (7.4,22.9)	16.60 (8.9,30.8)	22.27 (11.5,43.2)
Atlantic	4.96 (3.0,8.2)	1.34 (0.5,3.7)	3.09 (1.4,7.0)	6.39 (3.5,11.6)	11.67 (7.7,17.8)	16.27 (10.6,24.9)	19.93 (12.4,32.1)	27.66 (15.3,50.0)
Gulf of Mexico	9.30 (5.7,15.2)	2.76 (1.1,7.2)	6.54 (3.4,12.7)	12.33 (7.3,20.9)	20.44 (13.0,32.2)	27.82 (17.2,45.1)	33.74 (19.0,59.9)	46.12 (21.8,97.7)
Great Lakes	3.43 (2.1,5.5)	0.85 (0.3,2.1)	2.12 (1.1,4.1)	4.37 (2.6,7.3)	8.23 (5.0,13.4)	11.40 (6.6,19.6)	13.57 (8.1,22.7)	19.78 (10.4,37.6)
Inland Northeast	3.65 (2.4,5.6)	0.77 (0.3,2.2)	2.05 (0.8,5.0)	4.58 (2.6,8.1)	8.86 (6.1,12.9)	13.07 (8.0,21.3)	15.78 (9.2,27.1)	22.37 (11.6,43.2)
Inland Midwest	2.19 (1.4,3.4)	0.49 (0.2,1.0)	1.21 (0.7,2.2)	2.75 (1.8,4.3)	5.16 (3.3,8.1)	7.34 (4.5,11.9)	9.52 (5.2,17.4)	14.24 (6.9,29.5)
Inland South	4.05 (2.8,5.8)	0.95 (0.6,1.6)	2.41 (1.6,3.6)	5.21 (3.7,7.3)	9.34 (6.5,13.5)	13.31 (8.3,21.2)	16.48 (9.5,28.5)	25.89 (10.9,61.5)
Inland West	3.62 (2.2,5.8)	0.94 (0.4,2.2)	2.22 (1.1,4.3)	4.74 (2.9,7.7)	8.39 (5.1,13.7)	11.90 (6.9,20.6)	14.83 (8.0,27.5)	20.49 (10.2,41.0)

641  
642

DRAFT DOCUMENT

643  
644

Table C-42. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	1.58 (1.1,2.3)	0.19 (0.1,0.4)	0.60 (0.4,1.0)	1.71 (1.1,2.6)	3.90 (2.7,5.7)	6.26 (4.0,9.8)	8.28 (5.0,13.8)	13.88 (7.0,27.4)
<b>Gender</b>								
Female	1.28 (0.9,1.9)	0.15 (0.1,0.3)	0.47 (0.2,0.9)	1.44 (0.9,2.3)	3.22 (2.1,4.8)	5.23 (3.3,8.2)	6.88 (4.3,11.1)	11.60 (6.1,22.2)
Male	1.89 (1.2,2.9)	0.25 (0.1,0.4)	0.76 (0.5,1.2)	2.05 (1.4,3.0)	4.63 (3.1,7.0)	7.29 (4.4,12.0)	9.89 (5.2,18.8)	16.43 (7.2,37.6)
<b>Age</b>								
1 to <3 yrs	0.76 (0.4,1.7)	0.10 (0.0,0.2)	0.29 (0.2,0.6)	0.83 (0.4,1.6)	1.87 (0.9,4.0)	3.00 (1.3,7.2)	4.17 (1.5,11.6)	6.99 (2.1,22.7)
3 to <6 yrs	1.01 (0.6,1.7)	0.13 (0.1,0.3)	0.42 (0.2,0.8)	1.15 (0.7,2.0)	2.53 (1.5,4.3)	3.91 (2.3,6.8)	5.39 (2.8,10.2)	8.39 (4.2,16.7)
6 to <11 yrs	1.45 (0.9,2.3)	0.21 (0.1,0.5)	0.62 (0.3,1.3)	1.62 (0.8,3.2)	3.66 (2.3,5.8)	5.79 (3.8,8.8)	7.61 (4.7,12.2)	12.50 (6.6,23.7)
11 to <16 yrs	1.56 (0.9,2.7)	0.19 (0.1,0.6)	0.63 (0.3,1.4)	1.73 (0.9,3.4)	3.95 (2.3,6.9)	6.12 (3.4,10.9)	8.10 (4.4,15.0)	12.47 (6.7,23.2)
16 to <18 yrs	1.64 (1.0,2.7)	0.23 (0.1,0.6)	0.72 (0.4,1.4)	2.06 (1.2,3.5)	4.18 (2.5,6.9)	6.18 (3.7,10.2)	7.85 (4.7,13.2)	12.70 (7.2,22.3)
18 to <21 yrs	2.98 (1.2,7.4)	0.42 (0.2,0.9)	1.35 (0.6,3.1)	3.30 (1.7,6.5)	7.19 (3.1,16.4)	11.94 (3.6,39.5)	15.91 (4.1,62.0)	26.16 (5.3,130.0)
<b>Income</b>								
<\$20,000	1.98 (1.2,3.2)	0.25 (0.1,0.5)	0.76 (0.5,1.2)	2.24 (1.4,3.5)	5.02 (3.1,8.0)	7.76 (4.5,13.3)	10.61 (5.2,21.7)	16.11 (7.9,32.9)
>\$20,000	1.43 (1.0,2.1)	0.17 (0.1,0.4)	0.56 (0.3,1.0)	1.56 (1.0,2.4)	3.58 (2.5,5.2)	5.67 (3.7,8.7)	7.46 (4.6,12.1)	12.93 (6.2,26.9)
Income unknown	2.83 (1.1,7.4)	0.39 (0.2,0.9)	1.23 (0.5,3.1)	3.24 (1.2,9.1)	7.53 (2.3,24.6)	10.24 (4.0,26.1)	13.34 (5.3,33.5)	24.91 (7.5,82.8)
<b>Income, finer detail</b>								
<\$20,000	1.98 (1.2,3.2)	0.25 (0.1,0.5)	0.76 (0.5,1.2)	2.24 (1.4,3.5)	5.02 (3.1,8.0)	7.76 (4.5,13.3)	10.61 (5.2,21.7)	16.11 (7.9,32.9)
\$20k-\$45k	1.48 (0.9,2.5)	0.18 (0.1,0.3)	0.56 (0.3,0.9)	1.59 (1.0,2.5)	3.74 (2.3,6.2)	5.91 (3.3,10.5)	7.61 (4.2,13.8)	13.38 (5.4,33.4)
\$45k-\$75k	1.22 (0.8,1.9)	0.15 (0.1,0.3)	0.48 (0.3,0.9)	1.37 (0.8,2.4)	3.01 (1.7,5.2)	4.77 (3.0,7.7)	6.41 (4.0,10.3)	10.49 (6.0,18.3)
\$75k+	1.51 (1.0,2.2)	0.18 (0.1,0.4)	0.59 (0.3,1.1)	1.63 (1.0,2.8)	3.71 (2.5,5.5)	5.92 (3.9,9.0)	7.76 (4.9,12.3)	13.70 (6.6,28.6)
>\$20,000	1.89 (0.5,7.0)	0.28 (0.1,0.9)	0.85 (0.3,2.5)	1.92 (0.8,4.5)	4.57 (1.3,16.0)	7.75 (1.4,42.2)	10.09 (1.7,60.3)	13.78 (2.8,68.7)
Inc Ref/DK	2.61 (0.7,10.3)	0.39 (0.2,1.0)	1.13 (0.4,3.2)	2.77 (0.9,8.5)	5.79 (1.7,19.5)	10.08 (2.1,48.7)	13.34 (2.4,73.2)	26.62 (2.1,335.4)
Inc missing	3.14 (0.9,11.0)	0.39 (0.1,1.3)	1.56 (0.3,7.5)	3.87 (0.9,17.1)	9.01 (1.8,44.7)	10.48 (2.6,42.0)	13.38 (3.3,53.9)	20.78 (5.5,77.8)
<b>Race/Ethnicity</b>								
Mexican American	1.67 (1.1,2.5)	0.24 (0.1,0.6)	0.70 (0.4,1.3)	1.86 (1.1,3.1)	3.94 (2.5,6.2)	6.25 (4.0,9.8)	8.29 (5.2,13.3)	14.11 (7.4,26.8)
Other Hispanic	1.64 (0.9,3.2)	0.21 (0.1,0.4)	0.70 (0.4,1.3)	2.09 (1.0,4.3)	4.34 (2.1,9.1)	6.25 (3.1,12.8)	7.70 (3.9,15.3)	11.13 (5.7,21.9)
White	1.17 (0.8,1.8)	0.14 (0.1,0.3)	0.44 (0.2,0.8)	1.26 (0.8,2.0)	2.81 (1.9,4.2)	4.47 (2.9,6.8)	6.09 (3.7,9.9)	10.98 (5.3,22.8)
Black	2.16 (1.5,3.1)	0.36 (0.2,0.7)	1.03 (0.6,1.8)	2.60 (1.7,3.9)	5.30 (3.7,7.6)	7.92 (5.4,11.6)	10.40 (6.7,16.2)	15.11 (9.4,24.2)
Other race	3.52 (1.6,7.9)	0.57 (0.3,1.2)	1.77 (1.0,3.3)	4.46 (2.3,8.7)	8.74 (3.9,19.8)	12.58 (4.9,32.3)	15.27 (5.8,40.1)	26.16 (5.5,124.2)

645  
646

**Table C-42. Trophic level 3 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.89 (0.5,1.5)	0.11 (0.0,0.3)	0.33 (0.2,0.7)	0.99 (0.6,1.7)	2.32 (1.4,3.9)	3.39 (1.9,6.0)	4.59 (2.7,7.7)	7.35 (4.1,13.2)
Northeast	1.79 (1.1,3.0)	0.24 (0.1,0.4)	0.72 (0.4,1.2)	2.02 (1.3,3.1)	4.33 (2.7,6.8)	6.86 (3.8,12.5)	9.54 (4.1,22.3)	15.41 (5.1,46.9)
South	1.93 (1.2,3.1)	0.25 (0.1,0.5)	0.78 (0.4,1.4)	2.12 (1.3,3.5)	4.81 (3.0,7.7)	7.57 (4.4,12.9)	10.12 (5.5,18.6)	16.43 (8.0,33.8)
West	1.67 (1.0,2.8)	0.21 (0.1,0.5)	0.68 (0.4,1.2)	1.81 (1.1,3.0)	4.21 (2.5,7.1)	6.58 (3.5,12.4)	8.87 (4.0,19.4)	14.74 (5.3,41.0)
<b>Coastal Status</b>								
Noncoastal	1.21 (0.8,1.8)	0.15 (0.1,0.3)	0.49 (0.3,0.9)	1.35 (0.8,2.2)	3.02 (2.0,4.6)	4.73 (3.1,7.2)	6.13 (3.9,9.6)	10.59 (5.3,21.3)
Coastal	2.18 (1.4,3.3)	0.28 (0.1,0.5)	0.87 (0.5,1.4)	2.46 (1.6,3.7)	5.52 (3.5,8.6)	8.53 (5.1,14.3)	11.23 (6.3,20.0)	17.74 (9.0,34.8)
<b>Coastal/Inland Region</b>								
Pacific	1.91 (1.0,3.8)	0.22 (0.1,0.5)	0.73 (0.4,1.4)	2.09 (1.2,3.8)	4.86 (2.4,9.9)	7.66 (3.3,17.8)	9.98 (4.0,24.6)	16.64 (5.5,50.0)
Atlantic	1.99 (1.3,3.1)	0.29 (0.1,0.7)	0.87 (0.4,1.7)	2.25 (1.3,4.0)	4.74 (3.0,7.5)	7.31 (4.6,11.5)	9.87 (5.4,18.0)	16.43 (6.6,40.8)
Gulf of Mexico	3.98 (1.9,8.6)	0.69 (0.2,1.9)	2.03 (0.7,5.6)	5.06 (2.1,12.0)	9.76 (4.6,20.6)	13.74 (7.1,26.6)	16.62 (8.7,31.9)	28.63 (11.3,72.5)
Great Lakes	1.37 (0.8,2.3)	0.19 (0.1,0.4)	0.53 (0.2,1.2)	1.59 (0.9,2.8)	3.31 (1.9,5.9)	5.35 (3.2,8.8)	7.03 (4.0,12.3)	11.28 (6.2,20.4)
Inland Northeast	1.46 (0.9,2.3)	0.19 (0.1,0.4)	0.57 (0.2,1.3)	1.68 (1.0,2.9)	3.69 (2.3,6.0)	5.77 (3.3,10.1)	7.76 (4.1,14.9)	13.00 (4.9,34.5)
Inland Midwest	0.74 (0.5,1.2)	0.09 (0.0,0.2)	0.29 (0.2,0.5)	0.87 (0.5,1.4)	1.95 (1.2,3.3)	2.94 (1.7,5.0)	3.72 (2.2,6.3)	5.76 (3.4,9.9)
Inland South	1.36 (0.9,2.1)	0.20 (0.1,0.4)	0.58 (0.3,1.0)	1.56 (0.9,2.6)	3.33 (2.1,5.3)	5.15 (3.2,8.4)	6.88 (3.9,12.0)	11.57 (5.0,26.6)
Inland West	1.47 (0.8,2.6)	0.21 (0.1,0.5)	0.66 (0.3,1.3)	1.62 (0.8,3.2)	3.70 (2.1,6.6)	5.62 (3.1,10.2)	7.15 (3.9,13.2)	12.58 (4.7,33.4)

647  
648

DRAFT DOCUMENT

649  
650

**Table C-43. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, all ages**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	1.71 (1.1,2.6)	0.15 (0.1,0.3)	0.54 (0.3,1.0)	1.65 (1.0,2.9)	4.09 (2.5,6.6)	6.78 (4.2,10.8)	9.48 (6.1,14.8)	18.05 (11.7,27.8)
<b>Gender</b>								
Female	1.34 (0.8,2.3)	0.12 (0.1,0.2)	0.44 (0.2,0.9)	1.33 (0.7,2.4)	3.22 (1.8,5.8)	5.30 (3.0,9.4)	7.30 (4.1,12.9)	13.68 (8.2,22.7)
Male	2.16 (1.4,3.3)	0.19 (0.1,0.4)	0.70 (0.4,1.3)	2.10 (1.3,3.5)	5.08 (3.2,8.1)	8.52 (5.6,13.1)	12.09 (8.0,18.2)	23.01 (14.0,37.8)
<b>Age</b>								
1 to <3 yrs	0.39 (0.2,0.7)	0.03 (0.0,0.1)	0.11 (0.0,0.2)	0.34 (0.2,0.7)	0.95 (0.5,1.8)	1.64 (0.9,3.0)	2.32 (1.3,4.3)	4.38 (2.3,8.3)
3 to <6 yrs	0.48 (0.2,1.1)	0.04 (0.0,0.1)	0.13 (0.0,0.4)	0.41 (0.2,0.9)	1.13 (0.5,2.6)	2.09 (0.8,5.4)	3.06 (1.1,8.8)	5.37 (2.1,13.9)
6 to <11 yrs	0.67 (0.3,1.6)	0.05 (0.0,0.2)	0.19 (0.1,0.5)	0.60 (0.2,1.6)	1.56 (0.6,4.0)	2.61 (1.0,7.0)	3.66 (1.4,9.8)	6.75 (2.5,18.6)
11 to <16 yrs	0.87 (0.4,1.7)	0.06 (0.0,0.1)	0.21 (0.1,0.4)	0.69 (0.4,1.2)	2.01 (1.0,3.9)	3.54 (1.7,7.4)	5.07 (2.4,10.9)	10.09 (3.9,26.3)
16 to <18 yrs	0.62 (0.1,3.5)	0.06 (0.0,0.3)	0.19 (0.0,1.0)	0.59 (0.1,3.4)	1.55 (0.3,7.9)	2.55 (0.5,14.2)	3.60 (0.7,19.4)	5.98 (0.8,45.5)
18 to <21 yrs	0.66 (0.2,2.1)	0.05 (0.0,0.2)	0.21 (0.1,0.6)	0.64 (0.2,1.9)	1.62 (0.5,4.8)	2.91 (1.1,7.6)	3.65 (1.1,12.7)	6.19 (1.4,27.9)
21 to <35 yrs	1.82 (1.2,2.8)	0.19 (0.1,0.4)	0.59 (0.3,1.0)	1.69 (1.1,2.7)	4.21 (2.7,6.5)	7.01 (4.5,10.9)	10.19 (6.2,16.8)	18.43 (10.4,32.8)
35 to <50 yrs	1.77 (1.0,3.2)	0.22 (0.1,0.5)	0.69 (0.3,1.4)	1.78 (0.9,3.7)	4.19 (2.2,7.8)	6.69 (3.6,12.6)	9.28 (5.2,16.5)	16.62 (9.5,29.0)
50 to <65 yrs	3.05 (1.9,4.8)	0.48 (0.2,1.0)	1.28 (0.7,2.4)	3.26 (2.0,5.4)	7.09 (4.4,11.3)	11.79 (7.3,18.9)	15.98 (9.6,26.7)	26.88 (15.5,46.7)
65+ yrs	2.17 (1.1,4.2)	0.32 (0.1,0.8)	0.91 (0.4,2.1)	2.33 (1.1,4.9)	5.05 (2.5,10.3)	7.89 (3.8,16.3)	10.66 (5.2,21.7)	19.39 (10.7,35.2)
<b>Income</b>								
<\$20,000	1.88 (1.3,2.8)	0.16 (0.1,0.3)	0.56 (0.3,0.9)	1.81 (1.2,2.8)	4.62 (3.0,7.0)	7.61 (5.1,11.4)	10.94 (7.0,17.1)	19.60 (12.1,31.7)
>\$20,000	1.65 (1.0,2.7)	0.14 (0.1,0.3)	0.53 (0.3,1.1)	1.60 (0.9,3.0)	3.93 (2.3,6.9)	6.51 (3.8,11.1)	9.03 (5.4,15.1)	17.55 (11.2,27.4)
Income unknown	2.37 (1.3,4.2)	0.22 (0.1,0.5)	0.73 (0.3,1.5)	2.27 (1.2,4.3)	5.72 (3.3,10.0)	9.30 (5.0,17.2)	12.82 (6.8,24.3)	23.98 (12.3,46.7)
<b>Income, finer detail</b>								
<\$20,000	1.88 (1.3,2.8)	0.16 (0.1,0.3)	0.56 (0.3,0.9)	1.81 (1.2,2.8)	4.62 (3.0,7.0)	7.61 (5.1,11.4)	10.94 (7.0,17.1)	19.60 (12.1,31.7)
\$20k-\$45k	1.42 (0.6,3.2)	0.13 (0.1,0.3)	0.47 (0.2,1.1)	1.37 (0.5,3.4)	3.39 (1.4,8.0)	5.44 (2.1,14.0)	7.70 (3.3,18.2)	14.49 (6.8,30.8)
\$45k-\$75k	1.41 (0.8,2.5)	0.12 (0.0,0.3)	0.44 (0.2,1.0)	1.37 (0.7,2.8)	3.31 (1.6,6.6)	5.38 (2.6,11.1)	7.54 (3.9,14.6)	14.39 (8.3,24.9)
\$75k+	1.98 (1.3,3.0)	0.18 (0.1,0.4)	0.65 (0.3,1.2)	1.94 (1.2,3.3)	4.75 (3.1,7.3)	7.87 (5.1,12.0)	11.33 (7.3,17.7)	20.82 (11.8,36.7)
>\$20,000	2.04 (0.8,4.9)	0.21 (0.1,0.6)	0.71 (0.3,1.7)	2.11 (0.9,5.1)	4.86 (2.1,11.5)	8.29 (3.2,21.7)	10.72 (4.3,27.0)	18.38 (6.8,49.8)
Inc Ref/DK	1.93 (0.8,4.4)	0.21 (0.1,0.5)	0.68 (0.3,1.7)	2.07 (0.9,4.6)	4.55 (1.8,11.7)	7.62 (3.1,18.9)	10.41 (4.3,25.3)	18.78 (8.1,43.8)
Inc missing	3.23 (0.8,12.4)	0.27 (0.0,1.6)	0.83 (0.2,3.4)	2.85 (0.7,11.4)	7.37 (2.2,24.9)	13.17 (3.6,47.9)	19.71 (4.9,80.0)	36.08 (7.6,170.5)
<b>Race/Ethnicity</b>								
Mexican American	1.60 (0.9,2.8)	0.14 (0.1,0.3)	0.49 (0.3,0.9)	1.55 (0.9,2.8)	3.91 (2.2,7.0)	6.57 (3.7,11.7)	9.28 (5.2,16.5)	16.33 (8.5,31.3)
Other Hispanic	1.54 (0.7,3.5)	0.14 (0.0,0.5)	0.52 (0.2,1.4)	1.59 (0.7,3.8)	3.60 (1.5,8.6)	5.98 (2.5,14.1)	8.43 (3.7,19.2)	16.12 (7.0,37.3)
White	1.35 (0.8,2.3)	0.13 (0.1,0.3)	0.45 (0.2,0.9)	1.36 (0.7,2.6)	3.23 (1.8,5.8)	5.32 (3.1,9.1)	7.15 (4.1,12.6)	13.51 (8.5,21.4)
Black	2.35 (1.4,3.9)	0.24 (0.1,0.5)	0.83 (0.4,1.6)	2.38 (1.3,4.5)	5.62 (3.1,10.2)	9.41 (5.7,15.5)	12.76 (7.6,21.3)	23.26 (14.2,38.0)
Other race	4.50 (2.5,8.1)	0.53 (0.2,1.3)	1.73 (0.9,3.3)	4.79 (2.7,8.4)	11.22 (6.2,20.3)	16.84 (9.3,30.6)	22.66 (11.9,43.2)	37.24 (18.4,75.4)

651  
652

Table C-43. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.29 (0.6,2.8)	0.11 (0.0,0.3)	0.40 (0.1,1.1)	1.21 (0.5,3.2)	3.05 (1.3,7.2)	5.06 (2.2,11.9)	7.03 (3.1,16.1)	13.68 (6.9,27.0)
Northeast	1.48 (1.0,2.3)	0.12 (0.1,0.3)	0.48 (0.2,0.9)	1.51 (0.9,2.5)	3.67 (2.4,5.7)	5.76 (3.6,9.2)	7.69 (4.6,12.9)	15.61 (9.4,26.0)
South	2.09 (1.4,3.1)	0.19 (0.1,0.3)	0.67 (0.4,1.2)	2.00 (1.2,3.4)	4.87 (3.0,8.0)	8.36 (5.5,12.8)	12.09 (8.1,18.0)	22.58 (14.6,35.0)
West	1.75 (1.1,2.9)	0.17 (0.1,0.3)	0.60 (0.3,1.1)	1.72 (1.0,3.1)	4.30 (2.6,7.0)	6.94 (4.2,11.6)	9.51 (5.6,16.2)	16.71 (9.5,29.5)
<b>Coastal Status</b>								
Noncoastal	1.61 (1.0,2.5)	0.14 (0.1,0.3)	0.52 (0.3,0.9)	1.57 (0.9,2.7)	3.85 (2.3,6.3)	6.24 (3.7,10.5)	8.77 (5.3,14.4)	16.79 (10.1,27.9)
Coastal	1.87 (1.2,3.0)	0.16 (0.1,0.3)	0.58 (0.3,1.3)	1.77 (0.9,3.4)	4.44 (2.5,7.7)	7.49 (4.6,12.3)	10.70 (7.0,16.3)	19.74 (13.0,30.0)
<b>Coastal/Inland Region</b>								
Pacific	1.84 (1.0,3.3)	0.15 (0.1,0.4)	0.55 (0.2,1.4)	1.68 (0.8,3.7)	4.31 (2.3,8.2)	7.60 (4.4,13.3)	10.81 (6.1,19.2)	18.25 (9.6,34.6)
Atlantic	1.57 (0.7,3.7)	0.16 (0.1,0.5)	0.55 (0.2,1.6)	1.63 (0.7,4.0)	3.84 (1.6,9.2)	6.23 (2.7,14.5)	8.06 (3.0,21.5)	15.13 (7.0,32.5)
Gulf of Mexico	3.49 (2.1,5.7)	0.36 (0.2,0.8)	1.25 (0.6,2.4)	3.48 (1.8,6.7)	8.51 (5.1,14.2)	14.71 (9.4,23.1)	20.39 (12.8,32.6)	35.04 (18.8,65.3)
Great Lakes	1.19 (0.6,2.2)	0.10 (0.1,0.2)	0.37 (0.2,0.8)	1.12 (0.5,2.5)	2.81 (1.4,5.7)	4.61 (2.3,9.3)	6.69 (3.5,12.8)	12.37 (6.7,22.8)
Inland Northeast	1.32 (0.8,2.3)	0.10 (0.0,0.2)	0.40 (0.2,0.9)	1.29 (0.7,2.5)	3.11 (1.7,5.6)	5.15 (3.0,8.9)	6.79 (3.7,12.4)	13.87 (7.2,26.6)
Inland Midwest	1.31 (0.5,3.3)	0.11 (0.0,0.4)	0.41 (0.1,1.3)	1.23 (0.4,3.8)	3.09 (1.1,8.4)	5.12 (1.9,13.6)	7.13 (2.8,18.4)	13.92 (6.3,30.8)
Inland South	2.00 (1.3,3.0)	0.17 (0.1,0.3)	0.64 (0.4,1.0)	1.92 (1.3,2.9)	4.62 (3.0,7.0)	7.95 (5.2,12.1)	11.64 (6.9,19.7)	21.30 (11.6,39.2)
Inland West	1.65 (0.9,3.1)	0.18 (0.1,0.4)	0.65 (0.3,1.3)	1.78 (0.9,3.3)	4.29 (2.3,7.9)	6.40 (3.3,12.5)	8.48 (4.1,17.4)	13.97 (6.1,31.9)

653  
654

655  
656

Table C-44. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	2.14 (1.4,3.3)	0.26 (0.1,0.5)	0.80 (0.4,1.5)	2.16 (1.3,3.7)	4.97 (3.1,8.1)	8.19 (5.3,12.7)	11.53 (7.7,17.3)	20.71 (13.2,32.4)
<b>Gender</b>								
Female	1.64 (1.0,2.8)	0.21 (0.1,0.4)	0.64 (0.3,1.2)	1.71 (1.0,3.1)	3.91 (2.3,6.8)	6.29 (3.7,10.7)	8.52 (4.9,14.7)	15.45 (9.3,25.7)
Male	2.78 (1.8,4.2)	0.35 (0.2,0.7)	1.08 (0.6,2.0)	2.83 (1.7,4.7)	6.44 (4.1,10.1)	10.56 (7.0,16.0)	14.81 (9.7,22.6)	27.06 (15.8,46.3)
<b>Age</b>								
21 to <35 yrs	1.82 (1.2,2.8)	0.19 (0.1,0.4)	0.59 (0.3,1.0)	1.69 (1.1,2.7)	4.21 (2.7,6.5)	7.01 (4.5,10.9)	10.19 (6.2,16.8)	18.43 (10.4,32.8)
35 to <50 yrs	1.77 (1.0,3.2)	0.22 (0.1,0.5)	0.69 (0.3,1.4)	1.78 (0.9,3.7)	4.19 (2.2,7.8)	6.69 (3.6,12.6)	9.28 (5.2,16.5)	16.62 (9.5,29.0)
50 to <65 yrs	3.05 (1.9,4.8)	0.48 (0.2,1.0)	1.28 (0.7,2.4)	3.26 (2.0,5.4)	7.09 (4.4,11.3)	11.79 (7.3,18.9)	15.98 (9.6,26.7)	26.88 (15.5,46.7)
65+ yrs	2.17 (1.1,4.2)	0.32 (0.1,0.8)	0.91 (0.4,2.1)	2.33 (1.1,4.9)	5.05 (2.5,10.3)	7.89 (3.8,16.3)	10.66 (5.2,21.7)	19.39 (10.7,35.2)
<b>WCA (13-49 years)</b>	1.21 (0.7,2.1)	0.12 (0.1,0.2)	0.42 (0.2,0.8)	1.23 (0.7,2.2)	2.91 (1.6,5.3)	4.72 (2.5,8.8)	6.48 (3.5,12.1)	11.63 (6.0,22.6)
<b>Income</b>								
<\$20,000	2.38 (1.6,3.6)	0.26 (0.1,0.5)	0.85 (0.5,1.5)	2.43 (1.5,3.8)	5.74 (3.8,8.7)	9.57 (6.1,15.0)	12.71 (8.2,19.7)	21.80 (13.5,35.1)
>\$20,000	2.06 (1.3,3.3)	0.26 (0.1,0.6)	0.79 (0.4,1.5)	2.08 (1.1,3.9)	4.80 (2.8,8.3)	7.85 (4.8,12.9)	10.95 (7.0,17.2)	19.96 (12.6,31.7)
Income unknown	2.97 (1.7,5.1)	0.37 (0.1,0.9)	1.14 (0.6,2.3)	2.96 (1.6,5.4)	6.94 (4.0,11.9)	10.95 (5.9,20.4)	15.00 (7.9,28.5)	27.05 (13.6,53.8)
<b>Income, finer detail</b>								
<\$20,000	2.38 (1.6,3.6)	0.26 (0.1,0.5)	0.85 (0.5,1.5)	2.43 (1.5,3.8)	5.74 (3.8,8.7)	9.57 (6.1,15.0)	12.71 (8.2,19.7)	21.80 (13.5,35.1)
\$20k-\$45k	1.76 (0.8,3.9)	0.22 (0.1,0.5)	0.67 (0.3,1.6)	1.79 (0.7,4.3)	4.16 (1.8,9.5)	6.55 (2.7,16.1)	9.09 (3.9,20.9)	17.92 (9.9,32.6)
\$45k-\$75k	1.76 (1.0,3.0)	0.20 (0.1,0.5)	0.67 (0.3,1.3)	1.77 (0.9,3.5)	4.07 (2.1,7.8)	6.45 (3.3,12.6)	9.02 (5.0,16.3)	16.20 (9.1,29.0)
\$75k+	2.50 (1.6,3.8)	0.34 (0.2,0.7)	0.99 (0.5,1.8)	2.55 (1.5,4.2)	6.01 (4.0,9.1)	9.48 (6.2,14.6)	13.59 (8.4,22.1)	23.79 (13.3,42.7)
>\$20,000	2.41 (1.0,5.6)	0.29 (0.1,0.8)	0.90 (0.4,2.2)	2.60 (1.1,6.2)	5.59 (2.5,12.4)	9.12 (3.8,22.1)	11.80 (4.9,28.3)	20.13 (7.7,52.3)
Inc Ref/DK	2.38 (1.1,5.3)	0.31 (0.1,0.8)	1.03 (0.5,2.2)	2.69 (1.3,5.6)	6.07 (2.9,12.6)	9.10 (3.7,22.2)	11.73 (4.5,30.5)	22.29 (9.7,51.2)
Inc missing	4.28 (1.0,18.1)	0.50 (0.1,3.5)	1.30 (0.3,5.5)	3.65 (1.1,12.4)	9.76 (2.6,36.2)	16.46 (4.3,63.6)	23.98 (5.1,111.8)	42.98 (7.5,245.0)
<b>Race/Ethnicity</b>								
Mexican American	2.24 (1.3,3.8)	0.29 (0.2,0.5)	0.87 (0.5,1.5)	2.34 (1.4,4.0)	5.31 (3.0,9.5)	8.80 (5.0,15.4)	12.05 (6.9,21.0)	20.34 (10.9,38.1)
Other Hispanic	2.09 (0.9,4.7)	0.30 (0.1,0.9)	0.87 (0.3,2.2)	2.15 (0.9,5.1)	4.65 (1.9,11.4)	7.85 (3.5,17.7)	10.68 (4.8,23.6)	20.41 (8.0,51.9)
White	1.66 (1.0,2.7)	0.22 (0.1,0.5)	0.66 (0.3,1.3)	1.74 (0.9,3.2)	3.92 (2.2,6.8)	6.18 (3.6,10.6)	8.38 (5.0,14.1)	15.63 (10.0,24.4)
Black	3.04 (1.8,5.0)	0.44 (0.2,0.9)	1.29 (0.7,2.4)	3.31 (1.9,5.8)	7.14 (4.1,12.6)	11.61 (7.2,18.8)	15.67 (9.7,25.4)	26.57 (15.7,45.1)
Other race	5.76 (3.3,10.2)	0.91 (0.4,2.0)	2.56 (1.4,4.8)	6.32 (3.7,10.9)	13.80 (7.8,24.5)	19.74 (10.8,36.2)	26.36 (14.0,49.6)	51.03 (20.3,128.5)

657  
658

659  
660

**Table C-44. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, adults ≥21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.63 (0.7,3.6)	0.20 (0.1,0.6)	0.61 (0.2,1.6)	1.63 (0.6,4.2)	3.83 (1.7,8.9)	6.13 (2.6,14.2)	8.65 (4.1,18.2)	15.80 (7.9,31.4)
Northeast	1.87 (1.2,2.9)	0.21 (0.1,0.5)	0.70 (0.4,1.4)	1.97 (1.2,3.3)	4.53 (2.9,7.0)	6.94 (4.4,10.9)	9.53 (6.1,14.8)	19.43 (9.8,38.7)
South	2.59 (1.7,3.9)	0.31 (0.2,0.6)	0.98 (0.6,1.7)	2.58 (1.5,4.4)	6.11 (4.0,9.4)	10.15 (6.8,15.2)	14.10 (9.5,21.0)	25.87 (16.6,40.4)
West	2.20 (1.4,3.5)	0.29 (0.1,0.6)	0.87 (0.5,1.6)	2.28 (1.3,3.9)	5.21 (3.2,8.5)	8.38 (5.1,13.8)	11.36 (6.8,19.1)	18.43 (9.9,34.2)
<b>Coastal Status</b>								
Noncoastal	2.02 (1.3,3.2)	0.25 (0.1,0.5)	0.77 (0.4,1.4)	2.08 (1.2,3.5)	4.74 (2.9,7.7)	7.66 (4.7,12.4)	10.61 (6.6,17.1)	19.66 (11.6,33.3)
Coastal	2.33 (1.5,3.7)	0.28 (0.1,0.6)	0.86 (0.4,1.8)	2.30 (1.2,4.4)	5.52 (3.4,9.1)	9.03 (5.8,14.1)	12.76 (8.6,18.9)	22.35 (14.6,34.3)
<b>Coastal/Inland Region</b>								
Pacific	2.28 (1.3,4.0)	0.26 (0.1,0.6)	0.81 (0.4,1.8)	2.18 (1.1,4.5)	5.29 (2.9,9.7)	9.05 (5.2,15.8)	12.67 (6.9,23.2)	20.66 (10.9,39.0)
Atlantic	1.94 (0.9,4.4)	0.26 (0.1,0.8)	0.80 (0.3,2.1)	2.11 (0.9,5.0)	4.59 (1.9,11.0)	7.17 (2.9,17.6)	9.72 (4.1,23.0)	17.78 (9.2,34.2)
Gulf of Mexico	4.38 (2.7,7.0)	0.63 (0.3,1.3)	1.80 (0.9,3.5)	4.76 (2.8,8.1)	10.74 (6.9,16.8)	16.98 (10.7,26.9)	23.32 (14.2,38.3)	42.52 (21.3,85.0)
Great Lakes	1.52 (0.8,2.8)	0.20 (0.1,0.4)	0.57 (0.2,1.3)	1.49 (0.7,3.4)	3.71 (2.0,6.8)	5.93 (3.2,10.9)	8.34 (4.7,14.9)	14.84 (8.1,27.1)
Inland Northeast	1.67 (1.0,2.9)	0.17 (0.1,0.4)	0.59 (0.3,1.3)	1.68 (0.9,3.2)	3.95 (2.3,6.8)	6.15 (3.5,10.8)	8.50 (4.9,14.8)	20.29 (5.9,69.7)
Inland Midwest	1.65 (0.7,4.1)	0.20 (0.1,0.6)	0.62 (0.2,1.9)	1.67 (0.6,4.7)	3.85 (1.5,10.2)	6.14 (2.3,16.4)	8.70 (3.6,20.9)	15.81 (6.8,36.5)
Inland South	2.50 (1.6,3.8)	0.31 (0.2,0.5)	0.95 (0.6,1.5)	2.52 (1.7,3.8)	5.68 (3.7,8.7)	9.66 (6.2,15.1)	13.66 (8.0,23.2)	23.79 (13.6,41.6)
Inland West	2.12 (1.1,3.9)	0.34 (0.2,0.7)	0.93 (0.5,1.8)	2.42 (1.3,4.5)	5.15 (2.8,9.4)	7.72 (4.0,15.0)	9.96 (4.9,20.4)	15.98 (6.9,37.3)

661

DRAFT DOCUMENT

662  
663

Table C-45. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	0.64 (0.4,1.1)	0.05 (0.0,0.1)	0.17 (0.1,0.3)	0.55 (0.3,1.1)	1.51 (0.8,2.7)	2.66 (1.5,4.7)	3.66 (1.9,6.9)	6.83 (3.4,13.6)
<b>Gender</b>								
Female	0.52 (0.3,0.9)	0.04 (0.0,0.1)	0.13 (0.1,0.3)	0.44 (0.2,0.9)	1.24 (0.7,2.2)	2.10 (1.1,3.9)	3.02 (1.6,5.7)	5.75 (2.9,11.3)
Male	0.77 (0.4,1.4)	0.07 (0.0,0.1)	0.22 (0.1,0.4)	0.70 (0.4,1.3)	1.84 (1.0,3.3)	3.15 (1.8,5.6)	4.22 (2.1,8.4)	7.68 (3.6,16.4)
<b>Age</b>								
1 to <3 yrs	0.39 (0.2,0.7)	0.03 (0.0,0.1)	0.11 (0.0,0.2)	0.34 (0.2,0.7)	0.95 (0.5,1.8)	1.64 (0.9,3.0)	2.32 (1.3,4.3)	4.38 (2.3,8.3)
3 to <6 yrs	0.48 (0.2,1.1)	0.04 (0.0,0.1)	0.13 (0.0,0.4)	0.41 (0.2,0.9)	1.13 (0.5,2.6)	2.09 (0.8,5.4)	3.06 (1.1,8.8)	5.37 (2.1,13.9)
6 to <11 yrs	0.67 (0.3,1.6)	0.05 (0.0,0.2)	0.19 (0.1,0.5)	0.60 (0.2,1.6)	1.56 (0.6,4.0)	2.61 (1.0,7.0)	3.66 (1.4,9.8)	6.75 (2.5,18.6)
11 to <16 yrs	0.87 (0.4,1.7)	0.06 (0.0,0.1)	0.21 (0.1,0.4)	0.69 (0.4,1.2)	2.01 (1.0,3.9)	3.54 (1.7,7.4)	5.07 (2.4,10.9)	10.09 (3.9,26.3)
16 to <18 yrs	0.62 (0.1,3.5)	0.06 (0.0,0.3)	0.19 (0.0,1.0)	0.59 (0.1,3.4)	1.55 (0.3,7.9)	2.55 (0.5,14.2)	3.60 (0.7,19.4)	5.98 (0.8,45.5)
18 to <21 yrs	0.66 (0.2,2.1)	0.05 (0.0,0.2)	0.21 (0.1,0.6)	0.64 (0.2,1.9)	1.62 (0.5,4.8)	2.91 (1.1,7.6)	3.65 (1.1,12.7)	6.19 (1.4,27.9)
<b>Income</b>								
<\$20,000	0.86 (0.6,1.3)	0.07 (0.0,0.1)	0.23 (0.1,0.4)	0.70 (0.4,1.2)	1.90 (1.2,3.1)	3.34 (2.1,5.4)	4.95 (3.0,8.0)	10.20 (5.6,18.6)
>\$20,000	0.57 (0.3,1.1)	0.04 (0.0,0.1)	0.16 (0.1,0.3)	0.52 (0.2,1.1)	1.37 (0.7,2.8)	2.45 (1.3,4.5)	3.38 (1.7,6.6)	5.84 (2.4,14.2)
Income unknown	1.02 (0.4,2.4)	0.09 (0.0,0.2)	0.26 (0.1,0.7)	0.92 (0.4,2.1)	2.84 (1.2,6.7)	4.95 (2.1,11.8)	6.30 (2.5,16.1)	10.76 (3.0,38.8)
<b>Income, finer detail</b>								
<\$20,000	0.86 (0.6,1.3)	0.07 (0.0,0.1)	0.23 (0.1,0.4)	0.70 (0.4,1.2)	1.90 (1.2,3.1)	3.34 (2.1,5.4)	4.95 (3.0,8.0)	10.20 (5.6,18.6)
\$20k-\$45k	0.54 (0.2,1.5)	0.04 (0.0,0.1)	0.15 (0.1,0.4)	0.51 (0.2,1.3)	1.32 (0.5,3.4)	2.32 (0.9,5.9)	3.16 (1.1,9.0)	5.64 (1.8,18.2)
\$45k-\$75k	0.45 (0.2,1.1)	0.03 (0.0,0.1)	0.13 (0.1,0.3)	0.40 (0.2,1.1)	1.06 (0.4,2.8)	1.81 (0.7,4.9)	2.53 (0.9,6.9)	5.10 (2.2,11.6)
\$75k+	0.66 (0.4,1.1)	0.05 (0.0,0.1)	0.18 (0.1,0.4)	0.57 (0.3,1.1)	1.60 (0.9,2.7)	2.93 (1.8,4.8)	3.77 (2.1,6.8)	6.59 (3.1,14.1)
>\$20,000	0.83 (0.3,2.1)	0.08 (0.0,0.3)	0.29 (0.1,0.9)	0.84 (0.3,2.3)	1.86 (0.8,4.2)	3.23 (1.4,7.6)	4.11 (1.7,10.1)	9.60 (2.0,46.6)
Inc Ref/DK	0.70 (0.2,2.1)	0.07 (0.0,0.2)	0.22 (0.1,0.8)	0.71 (0.2,2.2)	1.75 (0.6,5.5)	3.50 (1.4,8.9)	4.27 (1.5,11.9)	6.53 (1.6,27.0)
Inc missing	1.45 (0.4,5.8)	0.11 (0.0,0.6)	0.34 (0.1,1.4)	1.34 (0.3,6.8)	3.98 (0.7,21.5)	6.58 (1.3,33.3)	9.30 (2.0,43.2)	16.43 (3.3,80.9)
<b>Race/Ethnicity</b>								
Mexican American	0.61 (0.3,1.5)	0.06 (0.0,0.1)	0.20 (0.1,0.4)	0.60 (0.3,1.3)	1.53 (0.7,3.4)	2.56 (1.1,6.0)	3.47 (1.4,8.7)	5.99 (2.0,18.1)
Other Hispanic	0.53 (0.2,1.3)	0.05 (0.0,0.2)	0.17 (0.1,0.5)	0.53 (0.2,1.3)	1.52 (0.6,3.6)	2.23 (0.9,5.4)	3.12 (1.3,7.7)	4.87 (1.5,15.9)
White	0.43 (0.2,0.8)	0.04 (0.0,0.1)	0.12 (0.1,0.3)	0.39 (0.2,0.8)	1.03 (0.5,2.1)	1.73 (0.8,3.6)	2.59 (1.4,4.7)	4.56 (2.1,9.7)
Black	0.97 (0.5,1.9)	0.10 (0.0,0.2)	0.31 (0.1,0.7)	0.91 (0.4,2.0)	2.20 (1.0,4.8)	3.68 (1.7,8.0)	5.18 (2.5,10.8)	9.79 (4.9,19.6)
Other race	1.80 (0.9,3.6)	0.19 (0.1,0.6)	0.64 (0.3,1.5)	1.94 (0.9,4.0)	4.29 (2.3,8.1)	7.32 (3.7,14.5)	9.60 (4.7,19.4)	19.88 (7.2,54.9)

664  
665

**Table C-45. Trophic level 4 freshwater + estuarine fish usual fish consumption rate estimates, youth <21 years (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.41 (0.1,1.5)	0.03 (0.0,0.1)	0.11 (0.0,0.4)	0.36 (0.1,1.4)	0.98 (0.3,3.7)	1.68 (0.4,6.6)	2.58 (0.8,8.1)	4.27 (0.9,20.5)
Northeast	0.49 (0.2,0.9)	0.04 (0.0,0.1)	0.15 (0.1,0.3)	0.49 (0.3,0.9)	1.26 (0.7,2.2)	2.02 (1.0,3.9)	2.82 (1.4,5.8)	4.77 (1.9,11.7)
South	0.82 (0.5,1.4)	0.07 (0.0,0.1)	0.22 (0.1,0.4)	0.69 (0.4,1.3)	1.89 (1.1,3.3)	3.27 (1.9,5.8)	4.55 (2.5,8.3)	9.10 (5.1,16.2)
West	0.71 (0.4,1.3)	0.06 (0.0,0.1)	0.20 (0.1,0.4)	0.66 (0.4,1.2)	1.69 (0.9,3.1)	2.94 (1.6,5.3)	4.24 (2.4,7.6)	7.63 (3.8,15.5)
<b>Coastal Status</b>								
Noncoastal	0.58 (0.3,1.1)	0.05 (0.0,0.1)	0.16 (0.1,0.3)	0.52 (0.3,1.0)	1.39 (0.8,2.5)	2.44 (1.4,4.4)	3.40 (1.9,6.3)	6.03 (2.9,12.7)
Coastal	0.74 (0.4,1.4)	0.05 (0.0,0.1)	0.20 (0.1,0.4)	0.62 (0.3,1.3)	1.68 (0.8,3.4)	3.02 (1.6,5.8)	4.27 (2.2,8.4)	8.03 (3.9,16.6)
<b>Coastal/Inland Region</b>								
Pacific	0.71 (0.3,1.5)	0.05 (0.0,0.1)	0.17 (0.1,0.5)	0.56 (0.2,1.6)	1.58 (0.7,3.8)	3.02 (1.5,6.2)	4.71 (2.3,9.4)	8.21 (3.5,19.1)
Atlantic	0.55 (0.2,1.5)	0.05 (0.0,0.1)	0.18 (0.1,0.4)	0.55 (0.2,1.4)	1.42 (0.6,3.3)	2.27 (0.9,6.0)	3.24 (1.3,8.1)	4.99 (1.2,20.4)
Gulf of Mexico	1.53 (0.8,2.8)	0.15 (0.1,0.3)	0.44 (0.2,1.0)	1.38 (0.6,3.0)	3.37 (1.5,7.8)	5.92 (2.8,12.7)	8.59 (4.5,16.5)	20.93 (7.8,56.0)
Great Lakes	0.45 (0.1,1.4)	0.04 (0.0,0.1)	0.13 (0.1,0.3)	0.40 (0.1,1.1)	1.06 (0.3,3.2)	2.01 (0.8,5.2)	2.86 (1.1,7.7)	4.33 (0.8,23.5)
Inland Northeast	0.41 (0.2,0.9)	0.04 (0.0,0.1)	0.12 (0.1,0.3)	0.39 (0.2,0.9)	1.08 (0.5,2.2)	1.77 (0.8,3.8)	2.51 (1.1,5.5)	4.00 (1.4,11.2)
Inland Midwest	0.40 (0.1,1.6)	0.03 (0.0,0.1)	0.11 (0.0,0.4)	0.35 (0.1,1.5)	0.95 (0.2,3.9)	1.61 (0.4,7.0)	2.49 (0.7,8.4)	4.22 (0.9,19.4)
Inland South	0.72 (0.4,1.2)	0.06 (0.0,0.1)	0.20 (0.1,0.4)	0.63 (0.4,1.1)	1.72 (1.0,2.8)	3.04 (1.8,5.2)	4.14 (2.3,7.4)	7.59 (3.8,15.0)
Inland West	0.72 (0.4,1.4)	0.07 (0.0,0.1)	0.24 (0.1,0.5)	0.71 (0.4,1.4)	1.79 (0.9,3.5)	2.91 (1.4,5.8)	3.93 (1.9,8.3)	7.29 (3.1,16.9)

666  
667

DRAFT DOCUMENT FOR COMMENT

Table C-46. Trophic level 2 marine fish usual fish consumption rate estimates, all ages

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	0.86 (0.4,1.7)	0.10 (0.1,0.2)	0.35 (0.2,0.6)	0.99 (0.6,1.6)	2.26 (1.3,3.9)	3.43 (1.6,7.3)	4.51 (1.9,10.5)	6.96 (2.1,22.9)
<b>Gender</b>								
Female	0.67 (0.4,1.2)	0.08 (0.0,0.2)	0.29 (0.2,0.5)	0.80 (0.5,1.3)	1.74 (1.0,2.9)	2.64 (1.4,5.0)	3.33 (1.5,7.3)	5.12 (1.8,15.0)
Male	1.10 (0.5,2.3)	0.14 (0.1,0.3)	0.46 (0.3,0.8)	1.28 (0.8,2.2)	2.86 (1.4,5.7)	4.45 (2.0,9.9)	5.77 (2.3,14.3)	8.62 (2.4,30.9)
<b>Age</b>								
1 to <3 yrs	0.17 (0.1,0.5)	0.02 (0.0,0.1)	0.06 (0.0,0.2)	0.17 (0.1,0.6)	0.44 (0.1,1.5)	0.75 (0.2,2.6)	1.02 (0.3,3.4)	1.77 (0.5,6.0)
3 to <6 yrs	0.31 (0.1,0.7)	0.04 (0.0,0.1)	0.12 (0.1,0.3)	0.37 (0.2,0.8)	0.82 (0.4,1.7)	1.20 (0.5,3.0)	1.60 (0.6,4.4)	2.54 (0.7,9.6)
6 to <11 yrs	0.34 (0.1,0.8)	0.04 (0.0,0.1)	0.12 (0.0,0.4)	0.35 (0.1,1.0)	0.86 (0.4,2.1)	1.48 (0.6,3.7)	1.88 (0.8,4.3)	3.37 (1.4,8.0)
11 to <16 yrs	0.34 (0.1,2.3)	0.04 (0.0,0.2)	0.12 (0.0,0.7)	0.35 (0.1,2.1)	0.85 (0.1,5.7)	1.37 (0.2,10.1)	1.92 (0.3,13.3)	3.08 (0.3,27.2)
16 to <18 yrs	0.56 (0.2,1.3)	0.06 (0.0,0.2)	0.20 (0.1,0.4)	0.62 (0.3,1.2)	1.51 (0.7,3.1)	2.32 (1.0,5.4)	2.94 (1.0,8.3)	4.63 (1.2,18.4)
18 to <21 yrs	0.74 (0.3,1.7)	0.07 (0.0,0.2)	0.25 (0.1,0.7)	0.80 (0.3,2.3)	1.87 (0.8,4.4)	2.94 (1.3,6.6)	3.88 (1.7,8.9)	6.75 (2.6,17.8)
21 to <35 yrs	0.93 (0.6,1.5)	0.14 (0.1,0.4)	0.44 (0.2,0.9)	1.13 (0.7,1.9)	2.39 (1.6,3.7)	3.63 (2.2,6.1)	4.50 (2.3,8.8)	6.74 (2.4,19.0)
35 to <50 yrs	1.00 (0.5,2.2)	0.17 (0.1,0.3)	0.48 (0.3,0.8)	1.21 (0.7,2.1)	2.50 (1.2,5.3)	3.82 (1.6,9.1)	4.98 (2.0,12.5)	7.37 (2.1,26.4)
50 to <65 yrs	1.35 (0.6,3.0)	0.25 (0.1,0.5)	0.69 (0.4,1.2)	1.67 (0.9,3.0)	3.28 (1.4,7.6)	5.11 (2.2,12.1)	6.48 (2.4,17.2)	8.92 (2.0,39.6)
65+ yrs	0.91 (0.4,2.1)	0.14 (0.1,0.3)	0.41 (0.2,0.7)	1.07 (0.6,2.0)	2.33 (1.1,4.9)	3.43 (1.3,9.0)	4.56 (1.7,12.6)	6.83 (1.8,26.6)
<b>Income</b>								
<\$20,000	0.65 (0.3,1.3)	0.07 (0.0,0.1)	0.24 (0.1,0.4)	0.70 (0.4,1.2)	1.65 (0.9,3.2)	2.62 (1.2,5.8)	3.61 (1.6,8.1)	5.84 (2.0,16.6)
>\$20,000	0.89 (0.4,1.8)	0.11 (0.1,0.2)	0.37 (0.2,0.6)	1.03 (0.7,1.6)	2.31 (1.3,4.2)	3.50 (1.6,7.7)	4.57 (1.9,11.2)	6.98 (2.0,24.4)
Income unknown	1.36 (0.7,2.5)	0.18 (0.0,0.8)	0.62 (0.2,2.3)	1.79 (0.6,5.3)	3.50 (1.9,6.5)	5.67 (3.0,10.8)	6.66 (3.4,13.2)	8.92 (2.5,31.2)
<b>Income, finer detail</b>								
<\$20,000	0.65 (0.3,1.3)	0.07 (0.0,0.1)	0.24 (0.1,0.4)	0.70 (0.4,1.2)	1.65 (0.9,3.2)	2.62 (1.2,5.8)	3.61 (1.6,8.1)	5.84 (2.0,16.6)
\$20k-\$45k	0.81 (0.4,1.5)	0.10 (0.0,0.3)	0.33 (0.1,0.9)	0.93 (0.4,2.1)	2.08 (1.1,3.9)	3.16 (1.8,5.5)	4.22 (2.3,7.6)	6.60 (3.2,13.5)
\$45k-\$75k	0.83 (0.3,2.0)	0.10 (0.0,0.2)	0.34 (0.2,0.6)	0.95 (0.5,1.8)	2.15 (1.0,4.7)	3.42 (1.4,8.1)	4.41 (1.6,12.1)	6.68 (1.7,26.8)
\$75k+	1.01 (0.4,2.7)	0.14 (0.1,0.2)	0.46 (0.3,0.8)	1.21 (0.6,2.4)	2.65 (1.1,6.3)	3.84 (1.2,12.0)	4.99 (1.5,16.8)	7.85 (1.9,32.3)
>\$20,000	0.54 (0.2,1.7)	0.09 (0.0,0.2)	0.25 (0.1,0.7)	0.65 (0.2,1.8)	1.44 (0.5,4.0)	2.05 (0.6,7.0)	2.51 (0.6,10.5)	3.36 (0.4,25.9)
Inc Ref/DK	1.54 (0.8,2.9)	0.22 (0.1,0.7)	0.72 (0.3,2.1)	1.98 (0.9,4.6)	4.03 (2.2,7.4)	6.09 (3.1,11.9)	7.37 (3.5,15.5)	10.11 (2.9,35.2)
Inc missing	1.00 (0.2,4.7)	0.12 (0.0,1.0)	0.41 (0.1,3.4)	1.34 (0.2,11.3)	2.67 (0.5,14.0)	3.69 (0.9,14.7)	4.57 (1.2,17.5)	7.10 (1.7,29.5)
<b>Race/Ethnicity</b>								
Mexican American	0.82 (0.5,1.4)	0.10 (0.0,0.2)	0.33 (0.2,0.6)	0.94 (0.6,1.5)	2.12 (1.3,3.5)	3.22 (1.7,6.1)	4.37 (2.2,8.6)	6.92 (2.8,17.0)
Other Hispanic	0.82 (0.4,1.6)	0.10 (0.0,0.4)	0.37 (0.1,1.1)	0.96 (0.5,1.9)	2.17 (1.2,4.0)	3.08 (1.5,6.5)	3.97 (1.7,9.2)	6.09 (2.0,18.9)
White	0.83 (0.4,1.9)	0.10 (0.1,0.2)	0.34 (0.2,0.6)	0.95 (0.5,1.7)	2.15 (1.0,4.6)	3.27 (1.2,8.8)	4.37 (1.5,12.4)	6.87 (1.8,26.6)
Black	0.68 (0.4,1.1)	0.09 (0.0,0.2)	0.30 (0.2,0.5)	0.82 (0.6,1.2)	1.76 (1.2,2.7)	2.65 (1.5,4.7)	3.40 (1.7,7.0)	5.01 (1.6,15.9)
Other race	1.68 (0.8,3.5)	0.27 (0.1,1.1)	0.92 (0.2,3.9)	2.24 (0.8,6.6)	4.23 (2.0,8.8)	6.17 (3.1,12.3)	7.25 (3.8,13.8)	10.18 (4.2,24.7)

670  
671

**Table C-46. Trophic level 2 marine fish usual fish consumption rate estimates, all ages (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.45 (0.2,1.1)	0.05 (0.0,0.1)	0.18 (0.1,0.4)	0.51 (0.3,1.0)	1.18 (0.5,2.6)	1.83 (0.7,4.7)	2.29 (0.7,7.4)	3.78 (1.0,14.3)
Northeast	1.24 (0.4,3.8)	0.16 (0.1,0.3)	0.54 (0.2,1.2)	1.47 (0.6,3.6)	3.12 (1.0,9.6)	4.86 (1.5,16.0)	6.27 (1.7,22.5)	9.58 (2.1,44.1)
South	0.97 (0.6,1.7)	0.12 (0.0,0.3)	0.41 (0.2,0.9)	1.15 (0.6,2.2)	2.53 (1.5,4.3)	3.92 (2.2,7.0)	5.10 (2.7,9.6)	7.23 (2.6,19.8)
West	0.90 (0.5,1.7)	0.13 (0.1,0.3)	0.43 (0.2,0.8)	1.10 (0.7,1.9)	2.38 (1.4,4.2)	3.42 (1.7,6.9)	4.37 (2.0,9.6)	6.70 (2.5,18.1)
<b>Coastal Status</b>								
Noncoastal	0.70 (0.3,1.5)	0.08 (0.0,0.2)	0.27 (0.2,0.5)	0.79 (0.5,1.3)	1.79 (0.9,3.4)	2.74 (1.2,6.5)	3.66 (1.4,9.7)	6.27 (2.0,19.5)
Coastal	1.12 (0.6,2.2)	0.16 (0.1,0.3)	0.52 (0.3,0.9)	1.38 (0.8,2.3)	2.90 (1.6,5.4)	4.26 (1.9,9.4)	5.36 (2.1,13.5)	7.99 (2.3,27.5)
<b>Coastal/Inland Region</b>								
Pacific	1.08 (0.6,2.0)	0.15 (0.1,0.3)	0.52 (0.2,1.1)	1.37 (0.7,2.6)	2.75 (1.5,5.1)	3.96 (2.0,7.9)	5.10 (2.4,10.7)	7.66 (2.9,20.3)
Atlantic	1.10 (0.3,3.8)	0.16 (0.1,0.4)	0.52 (0.2,1.3)	1.35 (0.5,3.7)	2.87 (0.9,8.9)	4.16 (1.1,16.1)	5.20 (1.1,23.8)	7.90 (1.4,45.5)
Gulf of Mexico	1.71 (0.9,3.4)	0.31 (0.1,1.3)	0.94 (0.3,3.1)	2.30 (0.9,5.8)	4.48 (2.2,9.0)	6.15 (3.3,11.5)	7.58 (3.8,14.9)	9.77 (3.3,28.5)
Great Lakes	0.66 (0.2,1.9)	0.09 (0.0,0.2)	0.29 (0.1,0.7)	0.80 (0.3,1.9)	1.74 (0.6,4.7)	2.45 (0.7,8.6)	3.30 (1.0,11.3)	5.00 (1.1,21.8)
Inland Northeast	1.26 (0.4,4.0)	0.15 (0.1,0.4)	0.51 (0.2,1.4)	1.45 (0.5,4.1)	3.12 (0.9,10.6)	5.15 (1.7,15.7)	6.55 (1.9,23.0)	10.40 (2.5,42.7)
Inland Midwest	0.39 (0.2,0.9)	0.05 (0.0,0.1)	0.16 (0.1,0.3)	0.45 (0.2,0.9)	1.01 (0.5,2.1)	1.59 (0.7,3.6)	2.03 (0.8,5.1)	3.06 (0.9,10.5)
Inland South	0.74 (0.4,1.4)	0.09 (0.0,0.3)	0.31 (0.1,0.8)	0.86 (0.4,2.0)	1.90 (1.0,3.7)	2.92 (1.6,5.5)	3.95 (2.0,8.0)	6.37 (2.9,13.9)
Inland West	0.73 (0.3,1.7)	0.12 (0.1,0.3)	0.35 (0.2,0.7)	0.88 (0.5,1.7)	1.87 (0.9,4.0)	2.67 (1.0,7.2)	3.43 (1.2,10.2)	5.41 (1.6,18.5)

672  
673

674  
675

Table C-47. Trophic level 2 marine fish usual fish consumption rate estimates, adults ≥21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	1.05 (0.5,2.0)	0.17 (0.1,0.3)	0.49 (0.3,0.8)	1.26 (0.8,1.9)	2.65 (1.4,4.8)	3.97 (1.8,8.7)	5.15 (2.1,12.4)	7.70 (2.2,26.7)
<b>Gender</b>								
Female	0.80 (0.4,1.4)	0.13 (0.1,0.3)	0.39 (0.2,0.7)	0.99 (0.6,1.5)	2.03 (1.2,3.5)	2.96 (1.5,5.9)	3.75 (1.7,8.5)	5.49 (1.7,17.7)
Male	1.37 (0.6,2.9)	0.24 (0.1,0.4)	0.68 (0.4,1.1)	1.69 (1.0,2.8)	3.47 (1.7,7.1)	5.26 (2.3,11.9)	6.55 (2.5,17.4)	9.24 (2.2,38.8)
<b>Age</b>								
21 to <35 yrs	0.93 (0.6,1.5)	0.14 (0.1,0.4)	0.44 (0.2,0.9)	1.13 (0.7,1.9)	2.39 (1.6,3.7)	3.63 (2.2,6.1)	4.50 (2.3,8.8)	6.74 (2.4,19.0)
35 to <50 yrs	1.00 (0.5,2.2)	0.17 (0.1,0.3)	0.48 (0.3,0.8)	1.21 (0.7,2.1)	2.50 (1.2,5.3)	3.82 (1.6,9.1)	4.98 (2.0,12.5)	7.37 (2.1,26.4)
50 to <65 yrs	1.35 (0.6,3.0)	0.25 (0.1,0.5)	0.69 (0.4,1.2)	1.67 (0.9,3.0)	3.28 (1.4,7.6)	5.11 (2.2,12.1)	6.48 (2.4,17.2)	8.92 (2.0,39.6)
65+ yrs	0.91 (0.4,2.1)	0.14 (0.1,0.3)	0.41 (0.2,0.7)	1.07 (0.6,2.0)	2.33 (1.1,4.9)	3.43 (1.3,9.0)	4.56 (1.7,12.6)	6.83 (1.8,26.6)
<b>WCA (13-49 years)</b>	0.68 (0.4,1.1)	0.10 (0.0,0.2)	0.31 (0.2,0.6)	0.84 (0.5,1.3)	1.75 (1.1,2.8)	2.60 (1.5,4.7)	3.24 (1.5,6.8)	4.82 (1.7,13.8)
<b>Income</b>								
<\$20,000	0.79 (0.4,1.7)	0.11 (0.1,0.2)	0.33 (0.2,0.6)	0.88 (0.5,1.6)	1.95 (0.9,4.0)	3.11 (1.4,7.0)	4.25 (1.9,9.6)	6.40 (2.0,20.1)
>\$20,000	1.08 (0.5,2.1)	0.18 (0.1,0.3)	0.52 (0.3,0.8)	1.31 (0.8,2.0)	2.69 (1.4,5.1)	4.01 (1.7,9.2)	5.17 (2.0,13.2)	7.77 (2.2,28.1)
Income unknown	1.60 (0.9,2.9)	0.28 (0.1,1.4)	0.86 (0.2,3.2)	2.18 (0.8,5.8)	3.98 (2.1,7.4)	5.94 (3.0,11.6)	7.10 (3.2,15.8)	9.55 (2.5,36.8)
<b>Income, finer detail</b>								
<\$20,000	0.79 (0.4,1.7)	0.11 (0.1,0.2)	0.33 (0.2,0.6)	0.88 (0.5,1.6)	1.95 (0.9,4.0)	3.11 (1.4,7.0)	4.25 (1.9,9.6)	6.40 (2.0,20.1)
\$20k-\$45k	0.98 (0.5,1.7)	0.16 (0.0,0.5)	0.45 (0.2,1.1)	1.17 (0.5,2.5)	2.44 (1.3,4.4)	3.64 (2.1,6.3)	4.77 (2.6,8.7)	7.21 (3.4,15.1)
\$45k-\$75k	1.01 (0.4,2.4)	0.16 (0.1,0.3)	0.47 (0.3,0.9)	1.21 (0.6,2.3)	2.55 (1.2,5.6)	3.95 (1.6,9.5)	5.10 (1.9,13.6)	6.91 (1.4,34.7)
\$75k+	1.24 (0.5,3.3)	0.24 (0.1,0.4)	0.64 (0.4,1.1)	1.53 (0.7,3.2)	3.05 (1.1,8.2)	4.43 (1.4,14.3)	5.63 (1.6,19.9)	8.38 (1.8,39.6)
>\$20,000	0.61 (0.2,2.1)	0.11 (0.0,0.3)	0.29 (0.1,0.9)	0.74 (0.3,2.1)	1.63 (0.6,4.7)	2.24 (0.6,8.4)	2.71 (0.6,12.6)	4.52 (0.9,22.0)
Inc Ref/DK	1.74 (0.9,3.3)	0.33 (0.1,1.2)	0.95 (0.3,2.7)	2.24 (1.1,4.6)	4.63 (2.4,8.8)	6.54 (3.3,13.1)	7.90 (3.4,18.4)	10.37 (2.5,43.2)
Inc missing	1.28 (0.2,6.8)	0.19 (0.0,2.2)	0.68 (0.1,8.3)	1.95 (0.2,20.8)	3.16 (0.6,15.9)	4.10 (1.1,15.5)	5.67 (1.3,25.5)	8.53 (1.7,42.4)
<b>Race/Ethnicity</b>								
Mexican American	1.09 (0.6,1.9)	0.19 (0.1,0.4)	0.54 (0.3,1.0)	1.33 (0.8,2.1)	2.67 (1.6,4.6)	4.09 (2.2,7.7)	5.31 (2.6,10.8)	7.83 (2.9,21.3)
Other Hispanic	1.06 (0.5,2.0)	0.20 (0.1,0.7)	0.55 (0.2,1.4)	1.36 (0.7,2.8)	2.61 (1.4,5.0)	3.66 (1.6,8.2)	4.65 (1.9,11.6)	6.83 (2.0,23.2)
White	0.99 (0.4,2.3)	0.16 (0.1,0.3)	0.46 (0.3,0.8)	1.17 (0.6,2.1)	2.52 (1.2,5.4)	3.76 (1.4,10.1)	4.88 (1.6,14.5)	7.38 (1.7,31.2)
Black	0.86 (0.5,1.4)	0.16 (0.1,0.3)	0.45 (0.3,0.8)	1.06 (0.7,1.5)	2.14 (1.4,3.3)	3.14 (1.7,5.8)	3.89 (1.7,8.7)	5.60 (1.6,19.7)
Other race	2.10 (1.0,4.4)	0.50 (0.1,2.5)	1.34 (0.3,5.6)	2.76 (1.1,7.1)	5.14 (2.4,10.9)	6.85 (3.6,13.1)	8.09 (4.1,16.1)	10.53 (3.6,30.7)

676  
677

678  
679

Table C-47. Trophic level 2 marine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.54 (0.2,1.4)	0.09 (0.0,0.2)	0.25 (0.1,0.5)	0.64 (0.3,1.3)	1.40 (0.6,3.1)	2.03 (0.7,5.8)	2.51 (0.7,9.0)	4.06 (1.0,16.9)
Northeast	1.47 (0.5,4.8)	0.26 (0.1,0.5)	0.75 (0.3,1.6)	1.78 (0.7,4.8)	3.65 (1.1,11.8)	5.50 (1.6,19.0)	6.93 (1.7,27.5)	10.31 (2.0,53.0)
South	1.19 (0.7,2.0)	0.21 (0.1,0.5)	0.59 (0.3,1.3)	1.47 (0.8,2.7)	2.99 (1.8,5.1)	4.57 (2.5,8.2)	5.63 (2.8,11.3)	8.22 (3.1,22.1)
West	1.11 (0.6,2.0)	0.23 (0.1,0.5)	0.59 (0.3,1.1)	1.40 (0.8,2.3)	2.72 (1.5,5.0)	3.91 (1.9,8.1)	4.94 (2.2,11.0)	7.32 (2.6,20.9)
<b>Coastal Status</b>								
Noncoastal	0.86 (0.4,1.8)	0.13 (0.1,0.2)	0.39 (0.2,0.6)	0.99 (0.6,1.6)	2.13 (1.1,4.2)	3.17 (1.3,7.9)	4.23 (1.6,11.4)	6.78 (1.9,23.9)
Coastal	1.35 (0.7,2.7)	0.26 (0.1,0.5)	0.72 (0.4,1.2)	1.73 (1.1,2.8)	3.40 (1.8,6.5)	4.89 (2.2,11.0)	5.95 (2.2,16.1)	8.39 (2.1,33.8)
<b>Coastal/Inland Region</b>								
Pacific	1.30 (0.7,2.3)	0.25 (0.1,0.6)	0.71 (0.3,1.5)	1.65 (0.9,3.0)	3.19 (1.7,5.9)	4.57 (2.3,9.0)	5.70 (2.7,11.9)	8.09 (2.9,22.9)
Atlantic	1.32 (0.4,4.6)	0.27 (0.1,0.6)	0.70 (0.3,1.8)	1.70 (0.6,4.5)	3.25 (0.9,11.2)	4.64 (1.1,19.3)	5.68 (1.1,28.5)	8.34 (1.3,54.2)
Gulf of Mexico	2.13 (1.1,4.2)	0.50 (0.1,1.9)	1.36 (0.4,4.8)	2.82 (1.2,6.5)	5.28 (2.7,10.5)	7.00 (3.7,13.3)	8.18 (3.9,17.0)	10.90 (3.7,32.1)
Great Lakes	0.81 (0.3,2.3)	0.15 (0.1,0.4)	0.44 (0.2,1.0)	1.03 (0.4,2.4)	2.00 (0.7,5.9)	2.71 (0.7,10.8)	3.76 (1.1,13.1)	5.38 (1.1,26.4)
Inland Northeast	1.50 (0.5,4.9)	0.23 (0.1,0.6)	0.72 (0.3,1.8)	1.76 (0.6,5.3)	3.69 (1.1,12.4)	5.82 (1.8,18.6)	7.36 (2.0,26.4)	11.03 (2.3,52.2)
Inland Midwest	0.47 (0.2,1.1)	0.08 (0.0,0.2)	0.22 (0.1,0.4)	0.56 (0.3,1.1)	1.22 (0.6,2.5)	1.83 (0.8,4.2)	2.29 (0.9,6.1)	3.48 (1.0,11.8)
Inland South	0.92 (0.5,1.8)	0.16 (0.0,0.5)	0.45 (0.2,1.2)	1.09 (0.5,2.4)	2.27 (1.2,4.3)	3.39 (1.8,6.3)	4.62 (2.2,9.8)	6.59 (3.1,14.2)
Inland West	0.90 (0.4,2.0)	0.21 (0.1,0.5)	0.50 (0.3,0.9)	1.10 (0.6,2.1)	2.26 (1.1,4.7)	3.14 (1.2,8.3)	4.03 (1.4,11.4)	5.99 (1.6,22.3)

680

Table C-48. Trophic level 2 marine fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	0.40 (0.2,0.8)	0.04 (0.0,0.1)	0.13 (0.1,0.3)	0.41 (0.2,0.8)	1.01 (0.5,1.9)	1.69 (0.8,3.5)	2.31 (1.0,5.2)	3.74 (1.2,11.6)
<b>Gender</b>								
Female	0.30 (0.2,0.6)	0.03 (0.0,0.1)	0.10 (0.0,0.2)	0.32 (0.2,0.6)	0.80 (0.4,1.5)	1.29 (0.7,2.5)	1.74 (0.9,3.4)	2.70 (1.0,7.2)
Male	0.51 (0.2,1.1)	0.05 (0.0,0.1)	0.17 (0.1,0.3)	0.51 (0.3,1.0)	1.26 (0.6,2.8)	2.10 (0.9,4.9)	2.83 (1.1,7.3)	4.86 (1.6,14.8)
<b>Age</b>								
1 to <3 yrs	0.17 (0.1,0.5)	0.02 (0.0,0.1)	0.06 (0.0,0.2)	0.17 (0.1,0.6)	0.44 (0.1,1.5)	0.75 (0.2,2.6)	1.02 (0.3,3.4)	1.77 (0.5,6.0)
3 to <6 yrs	0.31 (0.1,0.7)	0.04 (0.0,0.1)	0.12 (0.1,0.3)	0.37 (0.2,0.8)	0.82 (0.4,1.7)	1.20 (0.5,3.0)	1.60 (0.6,4.4)	2.54 (0.7,9.6)
6 to <11 yrs	0.34 (0.1,0.8)	0.04 (0.0,0.1)	0.12 (0.0,0.4)	0.35 (0.1,1.0)	0.86 (0.4,2.1)	1.48 (0.6,3.7)	1.88 (0.8,4.3)	3.37 (1.4,8.0)
11 to <16 yrs	0.34 (0.1,2.3)	0.04 (0.0,0.2)	0.12 (0.0,0.7)	0.35 (0.1,2.1)	0.85 (0.1,5.7)	1.37 (0.2,10.1)	1.92 (0.3,13.3)	3.08 (0.3,27.2)
16 to <18 yrs	0.56 (0.2,1.3)	0.06 (0.0,0.2)	0.20 (0.1,0.4)	0.62 (0.3,1.2)	1.51 (0.7,3.1)	2.32 (1.0,5.4)	2.94 (1.0,8.3)	4.63 (1.2,18.4)
18 to <21 yrs	0.74 (0.3,1.7)	0.07 (0.0,0.2)	0.25 (0.1,0.7)	0.80 (0.3,2.3)	1.87 (0.8,4.4)	2.94 (1.3,6.6)	3.88 (1.7,8.9)	6.75 (2.6,17.8)
<b>Income</b>								
<\$20,000	0.36 (0.2,0.8)	0.04 (0.0,0.1)	0.12 (0.1,0.2)	0.36 (0.2,0.7)	0.90 (0.5,1.8)	1.48 (0.7,3.3)	2.13 (1.0,4.7)	3.33 (1.0,11.4)
>\$20,000	0.39 (0.2,0.9)	0.04 (0.0,0.1)	0.13 (0.1,0.3)	0.40 (0.2,0.8)	0.99 (0.5,2.0)	1.66 (0.8,3.6)	2.25 (0.9,5.4)	3.64 (1.1,12.2)
Income unknown	0.80 (0.3,2.1)	0.09 (0.0,0.5)	0.27 (0.1,1.2)	0.84 (0.2,3.0)	2.06 (0.7,6.3)	3.60 (1.1,11.6)	4.41 (1.7,11.5)	8.48 (2.6,27.5)
<b>Income, finer detail</b>								
<\$20,000	0.36 (0.2,0.8)	0.04 (0.0,0.1)	0.12 (0.1,0.2)	0.36 (0.2,0.7)	0.90 (0.5,1.8)	1.48 (0.7,3.3)	2.13 (1.0,4.7)	3.33 (1.0,11.4)
\$20k-\$45k	0.41 (0.2,0.9)	0.04 (0.0,0.1)	0.13 (0.0,0.4)	0.40 (0.1,1.1)	1.01 (0.4,2.4)	1.69 (0.7,3.8)	2.30 (1.1,5.0)	3.68 (1.5,8.8)
\$45k-\$75k	0.33 (0.1,1.0)	0.03 (0.0,0.1)	0.11 (0.0,0.2)	0.34 (0.2,0.7)	0.85 (0.3,2.2)	1.40 (0.4,4.4)	1.79 (0.4,7.5)	2.89 (0.4,20.0)
\$75k+	0.43 (0.2,1.1)	0.04 (0.0,0.1)	0.14 (0.1,0.3)	0.45 (0.2,1.0)	1.07 (0.4,2.9)	1.88 (0.8,4.7)	2.49 (0.9,7.0)	4.10 (1.1,14.8)
>\$20,000	0.30 (0.1,1.0)	0.04 (0.0,0.1)	0.12 (0.0,0.3)	0.38 (0.1,1.1)	0.84 (0.3,2.7)	1.27 (0.4,4.4)	1.44 (0.3,7.2)	2.10 (0.3,15.7)
Inc Ref/DK	1.00 (0.3,3.1)	0.11 (0.0,0.5)	0.33 (0.1,1.2)	1.08 (0.3,4.4)	2.65 (0.7,9.6)	3.93 (1.4,11.2)	5.69 (1.8,18.2)	9.20 (2.9,29.6)
Inc missing	0.51 (0.1,2.2)	0.07 (0.0,0.7)	0.19 (0.0,1.2)	0.66 (0.1,5.0)	1.47 (0.2,9.0)	1.96 (0.4,9.0)	2.28 (0.5,10.7)	4.23 (0.8,23.7)
<b>Race/Ethnicity</b>								
Mexican American	0.41 (0.2,0.9)	0.05 (0.0,0.1)	0.15 (0.1,0.3)	0.42 (0.2,0.8)	1.01 (0.5,2.0)	1.65 (0.8,3.5)	2.17 (0.9,5.1)	3.66 (1.2,11.1)
Other Hispanic	0.39 (0.2,0.8)	0.04 (0.0,0.1)	0.13 (0.0,0.4)	0.43 (0.2,1.1)	1.00 (0.5,2.2)	1.68 (0.8,3.6)	2.19 (1.0,4.7)	3.49 (1.3,9.4)
White	0.38 (0.2,0.9)	0.03 (0.0,0.1)	0.11 (0.1,0.2)	0.36 (0.2,0.7)	0.93 (0.4,2.0)	1.59 (0.7,3.8)	2.20 (0.8,5.7)	3.64 (1.0,12.9)
Black	0.32 (0.1,0.7)	0.04 (0.0,0.1)	0.13 (0.1,0.2)	0.36 (0.2,0.6)	0.82 (0.4,1.6)	1.29 (0.6,2.9)	1.72 (0.7,4.2)	2.67 (0.7,9.8)
Other race	0.77 (0.3,1.7)	0.09 (0.0,0.3)	0.33 (0.1,1.2)	0.91 (0.3,2.4)	2.13 (0.9,5.2)	3.06 (1.4,6.8)	3.78 (1.6,8.8)	5.31 (1.7,17.1)

683  
684

Table C-48. Trophic level 2 marine fish usual fish consumption rate estimates, youth &lt;21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	0.21 (0.1,0.7)	0.02 (0.0,0.1)	0.06 (0.0,0.2)	0.19 (0.1,0.5)	0.52 (0.2,1.5)	0.91 (0.3,2.8)	1.19 (0.3,4.5)	2.18 (0.5,9.6)
Northeast	0.64 (0.3,1.6)	0.06 (0.0,0.1)	0.21 (0.1,0.4)	0.62 (0.3,1.5)	1.59 (0.6,4.0)	2.69 (1.1,6.7)	3.52 (1.3,9.5)	6.23 (2.0,19.6)
South	0.41 (0.2,0.8)	0.05 (0.0,0.1)	0.15 (0.1,0.4)	0.44 (0.2,0.9)	1.04 (0.5,2.1)	1.67 (0.8,3.4)	2.21 (1.0,4.9)	3.67 (1.3,10.1)
West	0.44 (0.2,0.9)	0.05 (0.0,0.1)	0.16 (0.1,0.4)	0.49 (0.2,1.0)	1.16 (0.6,2.2)	1.82 (0.9,3.6)	2.40 (1.1,5.2)	3.69 (1.2,11.4)
<b>Coastal Status</b>								
Noncoastal	0.33 (0.1,0.7)	0.03 (0.0,0.1)	0.10 (0.1,0.2)	0.32 (0.2,0.6)	0.81 (0.4,1.6)	1.38 (0.6,3.0)	1.86 (0.8,4.6)	3.11 (0.9,10.5)
Coastal	0.52 (0.2,1.1)	0.06 (0.0,0.1)	0.19 (0.1,0.4)	0.57 (0.3,1.1)	1.32 (0.6,2.7)	2.20 (1.0,4.6)	2.75 (1.1,7.0)	4.63 (1.5,14.1)
<b>Coastal/Inland Region</b>								
Pacific	0.51 (0.2,1.1)	0.05 (0.0,0.1)	0.18 (0.1,0.4)	0.58 (0.3,1.3)	1.32 (0.6,2.8)	2.26 (1.0,4.9)	2.68 (1.1,6.4)	4.31 (1.3,13.8)
Atlantic	0.50 (0.2,1.4)	0.06 (0.0,0.2)	0.19 (0.1,0.4)	0.54 (0.2,1.3)	1.17 (0.4,3.7)	2.04 (0.7,6.0)	2.67 (0.8,8.9)	4.84 (1.5,15.9)
Gulf of Mexico	0.79 (0.4,1.7)	0.12 (0.0,0.4)	0.37 (0.1,1.3)	0.99 (0.4,2.6)	1.95 (0.9,4.4)	2.94 (1.3,6.6)	3.57 (1.3,9.5)	5.38 (1.4,20.2)
Great Lakes	0.33 (0.1,1.2)	0.04 (0.0,0.1)	0.10 (0.0,0.3)	0.32 (0.1,1.1)	0.80 (0.2,3.1)	1.38 (0.4,5.3)	2.05 (0.6,7.3)	4.41 (1.3,15.2)
Inland Northeast	0.64 (0.2,1.8)	0.06 (0.0,0.2)	0.19 (0.1,0.6)	0.58 (0.2,2.0)	1.60 (0.5,4.9)	2.80 (1.1,7.5)	3.50 (1.1,11.5)	6.32 (1.8,22.5)
Inland Midwest	0.17 (0.1,0.4)	0.02 (0.0,0.0)	0.05 (0.0,0.1)	0.17 (0.1,0.4)	0.45 (0.2,1.1)	0.78 (0.3,1.9)	1.02 (0.4,2.6)	1.80 (0.6,5.5)
Inland South	0.30 (0.2,0.6)	0.03 (0.0,0.1)	0.10 (0.0,0.3)	0.30 (0.1,0.6)	0.74 (0.4,1.5)	1.21 (0.6,2.4)	1.65 (0.8,3.3)	2.59 (1.2,5.6)
Inland West	0.38 (0.2,0.8)	0.04 (0.0,0.1)	0.15 (0.1,0.4)	0.42 (0.2,0.9)	1.01 (0.5,2.1)	1.63 (0.8,3.4)	2.02 (0.8,4.9)	3.08 (0.9,10.2)

685  
686

Table C-49. Trophic level 3 marine fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	3.18 (2.0,5.0)	0.63 (0.3,1.3)	1.81 (1.0,3.3)	4.13 (2.5,6.7)	7.75 (5.1,11.8)	10.95 (7.2,16.8)	13.48 (8.8,20.6)	19.37 (12.5,30.0)
<b>Gender</b>								
Female	2.78 (1.8,4.3)	0.56 (0.3,1.2)	1.63 (0.8,3.1)	3.61 (2.3,5.8)	6.69 (4.5,9.9)	9.57 (6.3,14.5)	11.64 (7.8,17.4)	16.50 (10.9,24.9)
Male	3.67 (2.3,5.9)	0.73 (0.4,1.5)	2.09 (1.2,3.8)	4.78 (2.9,8.0)	8.96 (5.6,14.2)	12.59 (8.0,19.9)	15.50 (9.7,24.8)	21.97 (13.7,35.2)
<b>Age</b>								
1 to <3 yrs	1.01 (0.6,1.7)	0.17 (0.1,0.4)	0.50 (0.2,1.1)	1.24 (0.7,2.3)	2.55 (1.5,4.4)	3.66 (2.2,6.0)	4.54 (2.8,7.3)	6.64 (4.0,11.1)
3 to <6 yrs	1.33 (0.6,2.9)	0.24 (0.1,0.8)	0.68 (0.2,2.1)	1.68 (0.7,4.2)	3.37 (1.5,7.6)	4.76 (2.4,9.6)	6.12 (3.0,12.5)	9.15 (4.7,17.9)
6 to <11 yrs	2.16 (0.8,5.6)	0.37 (0.1,1.2)	1.07 (0.3,3.4)	2.77 (0.9,8.4)	5.50 (2.1,14.6)	7.75 (3.3,18.3)	9.54 (4.4,20.9)	14.29 (6.9,29.7)
11 to <16 yrs	1.48 (0.9,2.6)	0.25 (0.1,0.5)	0.70 (0.4,1.3)	1.81 (1.0,3.2)	3.58 (2.1,6.1)	5.48 (3.1,9.6)	6.87 (4.0,11.8)	10.84 (5.8,20.2)
16 to <18 yrs	1.46 (0.8,2.6)	0.24 (0.1,0.5)	0.72 (0.4,1.5)	1.81 (1.0,3.4)	3.83 (2.0,7.4)	5.35 (3.0,9.5)	6.30 (3.7,10.8)	9.95 (5.5,18.0)
18 to <21 yrs	2.03 (1.2,3.4)	0.30 (0.1,0.7)	0.94 (0.5,1.8)	2.54 (1.4,4.5)	5.23 (3.0,9.0)	7.49 (4.4,12.8)	9.81 (5.7,16.8)	14.88 (8.6,25.9)
21 to <35 yrs	3.54 (1.9,6.6)	0.85 (0.3,2.5)	2.20 (0.9,5.3)	4.60 (2.4,9.0)	8.36 (4.7,15.0)	11.46 (6.8,19.3)	13.77 (8.7,21.8)	20.54 (11.7,36.1)
35 to <50 yrs	3.44 (2.5,4.8)	0.89 (0.5,1.5)	2.12 (1.4,3.3)	4.42 (3.1,6.3)	7.92 (5.8,10.8)	11.16 (8.0,15.6)	13.74 (9.6,19.7)	20.12 (13.4,30.3)
50 to <65 yrs	5.01 (2.5,9.9)	1.56 (0.6,4.3)	3.36 (1.5,7.4)	6.66 (3.2,13.7)	11.54 (5.7,23.3)	15.16 (8.0,28.9)	17.97 (9.8,32.9)	23.47 (14.3,38.6)
65+ yrs	3.29 (2.3,4.8)	0.91 (0.5,1.8)	2.14 (1.2,3.7)	4.32 (2.8,6.6)	7.56 (5.4,10.7)	10.26 (7.3,14.5)	12.37 (8.6,17.7)	17.38 (11.3,26.8)
<b>Income</b>								
<\$20,000	2.98 (2.1,4.2)	0.51 (0.3,0.9)	1.59 (1.0,2.5)	3.75 (2.6,5.4)	7.35 (5.2,10.3)	10.56 (7.4,15.0)	12.84 (8.8,18.8)	20.04 (13.4,29.9)
>\$20,000	3.18 (2.0,5.2)	0.65 (0.3,1.4)	1.85 (1.0,3.6)	4.14 (2.5,6.9)	7.73 (4.9,12.2)	10.90 (6.9,17.3)	13.44 (8.4,21.5)	19.10 (12.0,30.5)
Income unknown	4.11 (1.7,9.8)	0.91 (0.2,4.0)	2.57 (0.7,10.0)	5.58 (2.0,15.9)	10.12 (4.4,23.1)	13.76 (6.6,28.8)	16.23 (8.6,30.6)	21.84 (13.0,36.7)
<b>Income, finer detail</b>								
<\$20,000	2.98 (2.1,4.2)	0.51 (0.3,0.9)	1.59 (1.0,2.5)	3.75 (2.6,5.4)	7.35 (5.2,10.3)	10.56 (7.4,15.0)	12.84 (8.8,18.8)	20.04 (13.4,29.9)
\$20k-\$45k	2.87 (1.7,5.0)	0.58 (0.2,1.4)	1.67 (0.7,3.7)	3.70 (2.0,6.7)	6.87 (4.3,11.1)	9.80 (6.0,15.9)	11.96 (7.6,18.9)	17.95 (10.4,31.0)
\$45k-\$75k	3.38 (1.8,6.2)	0.63 (0.3,1.4)	1.90 (0.9,4.0)	4.40 (2.3,8.6)	8.33 (4.5,15.3)	11.79 (6.5,21.5)	14.39 (8.2,25.2)	20.62 (12.1,35.2)
\$75k+	3.29 (2.2,4.9)	0.71 (0.4,1.5)	1.94 (1.2,3.2)	4.29 (2.8,6.5)	7.94 (5.4,11.6)	11.21 (7.4,17.0)	13.84 (8.8,21.9)	19.31 (12.3,30.4)
>\$20,000	3.39 (1.5,7.8)	0.84 (0.2,2.8)	2.19 (0.8,6.2)	4.55 (1.9,11.1)	7.72 (3.7,16.2)	10.45 (5.2,21.2)	12.70 (6.0,26.7)	19.12 (7.5,48.9)
Inc Ref/DK	4.18 (1.6,10.7)	0.98 (0.2,4.7)	2.76 (0.6,12.2)	5.79 (1.8,18.4)	10.24 (4.1,25.6)	12.93 (6.7,24.9)	14.70 (8.6,25.1)	21.43 (11.1,41.3)
Inc missing	3.97 (1.2,13.3)	0.78 (0.1,4.1)	2.13 (0.5,8.9)	5.02 (1.4,18.7)	9.80 (3.2,30.5)	15.88 (3.9,65.0)	18.27 (5.1,65.0)	21.84 (8.3,57.2)
<b>Race/Ethnicity</b>								
Mexican American	2.67 (1.7,4.3)	0.51 (0.3,1.0)	1.50 (0.8,3.0)	3.58 (2.0,6.5)	6.47 (4.2,10.0)	9.04 (6.0,13.7)	11.09 (7.4,16.7)	16.15 (10.3,25.4)
Other Hispanic	2.20 (1.4,3.4)	0.45 (0.2,1.0)	1.33 (0.7,2.6)	2.99 (1.8,5.0)	5.28 (3.4,8.2)	6.96 (4.3,11.3)	8.57 (5.2,14.2)	12.22 (7.2,20.8)
White	2.87 (1.8,4.5)	0.59 (0.3,1.2)	1.68 (0.9,3.1)	3.73 (2.3,5.9)	6.92 (4.6,10.3)	9.92 (6.4,15.4)	12.10 (7.8,18.8)	16.77 (11.1,25.3)
Black	3.44 (2.4,4.9)	0.83 (0.5,1.5)	2.16 (1.4,3.4)	4.66 (3.1,6.9)	8.13 (5.7,11.6)	10.85 (7.4,15.9)	13.15 (8.7,19.9)	18.91 (11.9,30.1)
Other race	7.41 (3.7,14.8)	2.10 (0.7,6.2)	5.54 (2.0,15.5)	10.35 (4.9,21.7)	16.36 (9.4,28.6)	21.13 (12.3,36.2)	25.87 (13.7,48.8)	34.67 (18.5,65.1)

689  
690

**Table C-49. Trophic level 3 marine fish usual fish consumption rate estimates, all ages (continued)**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.23 (1.2,4.0)	0.42 (0.2,0.9)	1.23 (0.6,2.6)	2.76 (1.5,4.9)	5.39 (3.1,9.4)	7.82 (4.4,14.0)	10.14 (5.2,19.8)	15.15 (7.5,30.7)
Northeast	3.72 (2.2,6.2)	0.73 (0.4,1.4)	2.16 (1.2,3.8)	4.96 (2.8,8.7)	8.93 (5.5,14.4)	12.77 (7.3,22.5)	15.07 (9.1,24.9)	22.85 (11.8,44.3)
South	3.25 (2.2,4.9)	0.68 (0.3,1.3)	1.96 (1.1,3.6)	4.26 (2.7,6.6)	7.73 (5.4,11.1)	10.78 (7.4,15.6)	13.17 (9.0,19.3)	19.07 (12.2,29.7)
West	3.72 (2.3,6.1)	0.82 (0.4,1.9)	2.26 (1.1,4.6)	4.91 (2.8,8.6)	9.14 (5.4,15.4)	12.38 (7.9,19.4)	15.01 (9.7,23.1)	20.33 (13.5,30.6)
<b>Coastal Status</b>								
Noncoastal	3.04 (1.6,5.8)	0.57 (0.2,1.3)	1.68 (0.8,3.7)	3.91 (2.0,7.8)	7.42 (4.0,13.7)	10.63 (5.7,19.9)	13.06 (7.1,24.0)	18.85 (10.6,33.7)
Coastal	3.41 (2.5,4.7)	0.75 (0.4,1.2)	2.04 (1.4,3.0)	4.47 (3.2,6.2)	8.17 (6.0,11.1)	11.47 (8.2,16.0)	14.06 (9.8,20.2)	19.91 (13.0,30.6)
<b>Coastal/Inland Region</b>								
Pacific	3.54 (2.5,5.0)	0.72 (0.4,1.2)	2.09 (1.3,3.3)	4.62 (3.2,6.7)	8.59 (6.1,12.2)	12.14 (8.5,17.3)	14.75 (10.0,21.7)	20.28 (12.7,32.4)
Atlantic	3.67 (2.4,5.7)	0.85 (0.5,1.6)	2.24 (1.3,3.8)	4.81 (3.1,7.6)	8.75 (5.7,13.3)	12.36 (8.1,19.0)	15.01 (9.6,23.4)	21.17 (12.6,35.6)
Gulf of Mexico	3.50 (2.2,5.6)	0.85 (0.3,2.3)	2.28 (1.1,4.9)	4.70 (2.8,8.0)	8.26 (5.4,12.6)	10.87 (7.3,16.1)	13.08 (8.8,19.5)	18.12 (11.6,28.4)
Great Lakes	2.32 (1.5,3.6)	0.48 (0.3,0.8)	1.40 (0.9,2.2)	3.05 (2.0,4.7)	5.43 (3.3,8.9)	7.66 (4.7,12.6)	9.61 (5.8,15.9)	14.15 (7.9,25.5)
Inland Northeast	3.56 (1.8,7.2)	0.61 (0.3,1.1)	2.03 (1.0,4.2)	4.63 (2.4,9.1)	8.63 (4.4,17.1)	12.07 (5.9,24.7)	14.57 (7.3,29.1)	22.85 (8.8,59.5)
Inland Midwest	2.20 (0.9,5.2)	0.41 (0.1,1.1)	1.19 (0.5,3.2)	2.66 (1.2,5.9)	5.37 (2.3,12.6)	7.88 (3.2,19.3)	10.22 (3.8,27.3)	15.20 (5.7,40.3)
Inland South	3.09 (1.7,5.6)	0.59 (0.3,1.2)	1.80 (0.8,4.0)	4.06 (2.1,7.8)	7.39 (4.3,12.6)	10.45 (6.1,17.8)	12.86 (7.6,21.8)	18.22 (11.0,30.3)
Inland West	3.90 (1.6,9.4)	0.90 (0.3,3.1)	2.45 (0.8,7.5)	5.17 (2.0,13.3)	9.64 (3.8,24.4)	12.68 (5.8,27.7)	15.43 (7.2,33.2)	20.56 (11.2,37.9)

691  
692

DRAFT DOCUMENT

693  
694

**Table C-50. Trophic level 3 marine fish usual fish consumption rate estimates, adults ≥21 years**

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	3.81 (2.4,5.9)	0.99 (0.5,2.1)	2.40 (1.4,4.2)	4.96 (3.1,7.9)	8.94 (5.8,13.9)	12.30 (7.9,19.0)	14.79 (9.7,22.4)	21.07 (13.4,33.1)
<b>Gender</b>								
Female	3.28 (2.1,5.1)	0.86 (0.4,1.8)	2.11 (1.1,3.9)	4.31 (2.7,6.9)	7.68 (5.1,11.5)	10.47 (7.1,15.5)	12.69 (8.5,18.9)	17.89 (11.6,27.5)
Male	4.47 (2.8,7.2)	1.21 (0.6,2.4)	2.87 (1.6,5.1)	5.80 (3.7,9.1)	10.50 (6.5,17.1)	14.38 (8.8,23.5)	16.89 (11.0,25.9)	23.40 (14.9,36.9)
<b>Age</b>								
21 to <35 yrs	3.54 (1.9,6.6)	0.85 (0.3,2.5)	2.20 (0.9,5.3)	4.60 (2.4,9.0)	8.36 (4.7,15.0)	11.46 (6.8,19.3)	13.77 (8.7,21.8)	20.54 (11.7,36.1)
35 to <50 yrs	3.44 (2.5,4.8)	0.89 (0.5,1.5)	2.12 (1.4,3.3)	4.42 (3.1,6.3)	7.92 (5.8,10.8)	11.16 (8.0,15.6)	13.74 (9.6,19.7)	20.12 (13.4,30.3)
50 to <65 yrs	5.01 (2.5,9.9)	1.56 (0.6,4.3)	3.36 (1.5,7.4)	6.66 (3.2,13.7)	11.54 (5.7,23.3)	15.16 (8.0,28.9)	17.97 (9.8,32.9)	23.47 (14.3,38.6)
65+ yrs	3.29 (2.3,4.8)	0.91 (0.5,1.8)	2.14 (1.2,3.7)	4.32 (2.8,6.6)	7.56 (5.4,10.7)	10.26 (7.3,14.5)	12.37 (8.6,17.7)	17.38 (11.3,26.8)
<b>WCA (13-49 years)</b>	2.68 (1.8,3.9)	0.56 (0.3,1.1)	1.61 (0.9,2.9)	3.52 (2.3,5.3)	6.40 (4.6,8.9)	9.16 (6.4,13.1)	10.91 (7.7,15.4)	15.15 (10.2,22.6)
<b>Income</b>								
<\$20,000	3.57 (2.5,5.1)	0.77 (0.4,1.4)	2.04 (1.3,3.2)	4.51 (3.1,6.5)	8.57 (6.1,12.1)	11.79 (8.2,17.1)	14.22 (9.5,21.2)	22.17 (14.4,34.2)
>\$20,000	3.81 (2.4,6.1)	1.03 (0.5,2.2)	2.43 (1.3,4.4)	4.98 (3.0,8.2)	8.90 (5.6,14.2)	12.24 (7.6,19.6)	14.73 (9.3,23.3)	20.75 (12.8,33.6)
Income unknown	4.86 (2.0,11.6)	1.34 (0.3,6.5)	3.26 (0.9,11.5)	6.49 (2.6,16.3)	11.71 (4.8,28.5)	15.37 (7.3,32.6)	17.74 (9.4,33.6)	23.53 (13.5,41.2)
<b>Income, finer detail</b>								
<\$20,000	3.57 (2.5,5.1)	0.77 (0.4,1.4)	2.04 (1.3,3.2)	4.51 (3.1,6.5)	8.57 (6.1,12.1)	11.79 (8.2,17.1)	14.22 (9.5,21.2)	22.17 (14.4,34.2)
\$20k-\$45k	3.39 (2.0,5.8)	0.87 (0.4,2.1)	2.16 (1.0,4.6)	4.48 (2.4,8.2)	7.85 (4.9,12.7)	10.89 (6.8,17.4)	13.35 (8.3,21.5)	19.10 (11.3,32.2)
\$45k-\$75k	4.04 (2.2,7.5)	1.01 (0.4,2.3)	2.53 (1.2,5.5)	5.29 (2.7,10.4)	9.74 (4.9,19.2)	13.03 (7.3,23.3)	15.86 (9.1,27.8)	22.68 (12.6,40.9)
\$75k+	3.99 (2.7,5.8)	1.16 (0.6,2.1)	2.62 (1.7,4.1)	5.21 (3.6,7.6)	9.30 (6.2,14.0)	12.69 (8.1,19.8)	14.92 (9.8,22.8)	21.13 (13.1,34.2)
>\$20,000	3.77 (1.8,7.9)	1.10 (0.4,2.9)	2.68 (1.0,6.9)	5.15 (2.3,11.5)	8.54 (4.2,17.3)	10.68 (5.6,20.3)	14.06 (6.4,30.8)	19.73 (8.2,47.2)
Inc Ref/DK	4.75 (2.0,11.3)	1.33 (0.3,6.1)	3.29 (0.9,11.8)	6.43 (2.5,16.6)	11.27 (4.8,26.4)	13.76 (7.7,24.6)	16.04 (9.3,27.7)	21.43 (11.2,41.1)
Inc missing	5.10 (1.4,19.2)	1.36 (0.2,10.3)	3.04 (0.7,14.0)	6.78 (1.6,28.1)	14.09 (2.8,70.2)	17.74 (4.4,71.1)	19.24 (6.3,58.9)	24.71 (8.4,72.3)
<b>Race/Ethnicity</b>								
Mexican American	3.41 (2.1,5.5)	0.88 (0.4,1.8)	2.28 (1.1,4.6)	4.62 (2.7,8.1)	7.79 (5.1,11.8)	10.59 (7.0,16.1)	12.79 (8.4,19.5)	17.17 (10.7,27.6)
Other Hispanic	2.75 (1.8,4.3)	0.80 (0.4,1.7)	1.95 (1.0,3.7)	3.73 (2.3,6.0)	6.05 (3.8,9.6)	7.97 (4.7,13.4)	10.12 (6.2,16.4)	13.47 (7.5,24.1)
White	3.40 (2.2,5.3)	0.90 (0.4,1.9)	2.18 (1.2,3.9)	4.46 (2.8,7.1)	7.88 (5.2,11.9)	10.93 (7.0,17.0)	13.07 (8.5,20.0)	18.04 (11.7,27.7)
Black	4.23 (2.9,6.1)	1.31 (0.7,2.5)	2.95 (1.8,4.7)	5.66 (3.9,8.2)	9.43 (6.6,13.5)	12.40 (8.4,18.4)	14.99 (9.8,23.0)	20.87 (12.9,33.9)
Other race	8.97 (4.7,17.3)	3.35 (1.3,8.6)	7.04 (3.0,16.4)	12.12 (6.3,23.3)	19.19 (10.2,36.2)	23.47 (13.6,40.4)	27.95 (15.6,49.9)	35.78 (20.1,63.8)

695  
696

697  
698

Table C-50. Trophic level 3 marine fish usual fish consumption rate estimates, adults ≥21 years (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.67 (1.5,4.8)	0.68 (0.3,1.6)	1.59 (0.8,3.1)	3.32 (1.9,5.7)	6.13 (3.6,10.4)	9.03 (4.8,17.1)	11.22 (5.8,21.9)	16.34 (8.1,32.8)
Northeast	4.44 (2.6,7.5)	1.14 (0.6,2.1)	2.85 (1.6,4.9)	5.87 (3.5,9.9)	10.31 (6.1,17.5)	14.12 (8.1,24.5)	16.75 (9.8,28.5)	25.67 (11.7,56.4)
South	3.91 (2.6,5.9)	1.09 (0.5,2.2)	2.58 (1.5,4.5)	5.13 (3.3,7.9)	8.94 (6.1,13.1)	12.23 (8.2,18.2)	14.73 (9.9,22.0)	20.87 (13.1,33.3)
West	4.44 (2.7,7.4)	1.29 (0.6,3.0)	2.98 (1.5,6.0)	5.83 (3.4,10.0)	10.29 (6.2,17.1)	13.72 (8.7,21.7)	16.36 (10.6,25.3)	22.21 (14.6,33.8)
<b>Coastal Status</b>								
Noncoastal	3.64 (1.9,6.9)	0.89 (0.4,2.1)	2.24 (1.1,4.7)	4.75 (2.4,9.4)	8.66 (4.5,16.6)	12.02 (6.3,23.0)	14.46 (7.9,26.5)	20.81 (11.3,38.3)
Coastal	4.06 (3.0,5.6)	1.16 (0.7,1.9)	2.67 (1.8,3.9)	5.31 (3.9,7.3)	9.34 (6.8,12.8)	12.78 (9.0,18.2)	15.49 (10.6,22.7)	21.43 (13.6,33.8)
<b>Coastal/Inland Region</b>								
Pacific	4.16 (2.9,5.9)	1.16 (0.7,2.0)	2.66 (1.7,4.1)	5.45 (3.8,7.9)	9.70 (6.8,13.8)	13.40 (9.2,19.4)	16.04 (10.7,24.1)	22.32 (14.2,35.2)
Atlantic	4.35 (2.8,6.7)	1.28 (0.7,2.3)	2.87 (1.7,4.8)	5.62 (3.6,8.9)	9.88 (6.5,15.1)	13.60 (8.8,21.1)	16.49 (10.5,26.0)	22.95 (13.3,39.7)
Gulf of Mexico	4.28 (2.7,6.8)	1.39 (0.5,3.8)	2.95 (1.6,5.6)	5.79 (3.4,9.8)	9.43 (6.2,14.3)	12.28 (8.3,18.3)	14.63 (9.7,22.0)	20.87 (11.9,36.5)
Great Lakes	2.78 (1.7,4.4)	0.79 (0.4,1.4)	1.84 (1.1,3.0)	3.61 (2.2,5.9)	6.07 (3.5,10.6)	8.48 (4.9,14.6)	10.59 (6.3,17.9)	14.99 (8.1,27.7)
Inland Northeast	4.24 (2.1,8.7)	0.96 (0.5,1.8)	2.61 (1.4,5.0)	5.50 (2.8,10.7)	9.98 (4.8,20.9)	13.70 (6.3,29.9)	16.00 (7.8,32.8)	25.71 (8.8,74.8)
Inland Midwest	2.65 (1.1,6.1)	0.66 (0.2,1.9)	1.55 (0.7,3.6)	3.24 (1.5,7.0)	6.13 (2.8,13.6)	9.21 (3.5,24.3)	11.48 (4.3,30.7)	16.70 (6.2,44.9)
Inland South	3.74 (2.1,6.8)	0.97 (0.4,2.3)	2.41 (1.1,5.2)	4.93 (2.6,9.4)	8.55 (5.0,14.7)	11.84 (6.9,20.4)	14.53 (8.2,25.7)	20.24 (11.7,35.0)
Inland West	4.73 (1.9,11.7)	1.47 (0.4,5.4)	3.31 (1.0,10.5)	6.31 (2.4,16.5)	10.73 (4.5,25.5)	14.22 (6.4,31.4)	16.85 (8.0,35.5)	21.68 (12.0,39.1)

699

700  
701

Table C-51. Trophic level 3 marine fish usual fish consumption rate estimates, youth &lt;21 years

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	1.63 (1.0,2.7)	0.26 (0.1,0.6)	0.77 (0.4,1.6)	1.97 (1.1,3.5)	4.14 (2.4,7.1)	6.05 (3.8,9.7)	7.74 (4.8,12.4)	11.83 (7.5,18.7)
<b>Gender</b>								
Female	1.40 (0.8,2.4)	0.23 (0.1,0.5)	0.67 (0.3,1.5)	1.74 (0.9,3.3)	3.56 (2.1,6.1)	5.12 (3.2,8.1)	6.41 (4.2,9.9)	9.70 (6.2,15.1)
Male	1.87 (1.1,3.2)	0.31 (0.1,0.7)	0.89 (0.5,1.7)	2.28 (1.2,4.2)	4.76 (2.7,8.5)	7.03 (4.1,12.1)	8.85 (5.3,14.7)	13.25 (8.4,21.0)
<b>Age</b>								
1 to <3 yrs	1.01 (0.6,1.7)	0.17 (0.1,0.4)	0.50 (0.2,1.1)	1.24 (0.7,2.3)	2.55 (1.5,4.4)	3.66 (2.2,6.0)	4.54 (2.8,7.3)	6.64 (4.0,11.1)
3 to <6 yrs	1.33 (0.6,2.9)	0.24 (0.1,0.8)	0.68 (0.2,2.1)	1.68 (0.7,4.2)	3.37 (1.5,7.6)	4.76 (2.4,9.6)	6.12 (3.0,12.5)	9.15 (4.7,17.9)
6 to <11 yrs	2.16 (0.8,5.6)	0.37 (0.1,1.2)	1.07 (0.3,3.4)	2.77 (0.9,8.4)	5.50 (2.1,14.6)	7.75 (3.3,18.3)	9.54 (4.4,20.9)	14.29 (6.9,29.7)
11 to <16 yrs	1.48 (0.9,2.6)	0.25 (0.1,0.5)	0.70 (0.4,1.3)	1.81 (1.0,3.2)	3.58 (2.1,6.1)	5.48 (3.1,9.6)	6.87 (4.0,11.8)	10.84 (5.8,20.2)
16 to <18 yrs	1.46 (0.8,2.6)	0.24 (0.1,0.5)	0.72 (0.4,1.5)	1.81 (1.0,3.4)	3.83 (2.0,7.4)	5.35 (3.0,9.5)	6.30 (3.7,10.8)	9.95 (5.5,18.0)
18 to <21 yrs	2.03 (1.2,3.4)	0.30 (0.1,0.7)	0.94 (0.5,1.8)	2.54 (1.4,4.5)	5.23 (3.0,9.0)	7.49 (4.4,12.8)	9.81 (5.7,16.8)	14.88 (8.6,25.9)
<b>Income</b>								
<\$20,000	1.78 (1.2,2.7)	0.29 (0.2,0.5)	0.82 (0.5,1.3)	2.14 (1.4,3.3)	4.54 (3.0,6.8)	6.63 (4.3,10.3)	8.32 (5.2,13.4)	12.99 (8.0,21.0)
>\$20,000	1.56 (0.9,2.9)	0.25 (0.1,0.6)	0.74 (0.3,1.6)	1.90 (1.0,3.7)	3.96 (2.1,7.4)	5.82 (3.3,10.4)	7.34 (4.2,12.7)	11.22 (6.5,19.3)
Income unknown	2.39 (0.8,6.7)	0.43 (0.1,1.6)	1.30 (0.3,5.5)	3.42 (0.7,15.8)	5.84 (2.1,16.2)	7.93 (3.4,18.4)	9.22 (4.4,19.4)	13.66 (6.1,30.5)
<b>Income, finer detail</b>								
<\$20,000	1.78 (1.2,2.7)	0.29 (0.2,0.5)	0.82 (0.5,1.3)	2.14 (1.4,3.3)	4.54 (3.0,6.8)	6.63 (4.3,10.3)	8.32 (5.2,13.4)	12.99 (8.0,21.0)
\$20k-\$45k	1.56 (0.8,3.1)	0.26 (0.1,0.7)	0.76 (0.3,1.9)	1.92 (0.9,4.3)	3.84 (2.0,7.4)	5.83 (2.9,11.6)	7.21 (4.0,13.1)	11.27 (5.9,21.5)
\$45k-\$75k	1.54 (0.9,2.8)	0.25 (0.1,0.6)	0.72 (0.3,1.7)	1.86 (1.0,3.6)	3.93 (2.2,7.1)	5.77 (3.4,9.8)	7.65 (4.1,14.1)	10.87 (6.9,17.2)
\$75k+	1.55 (0.9,2.8)	0.24 (0.1,0.5)	0.72 (0.4,1.4)	1.88 (1.0,3.5)	3.98 (2.1,7.6)	5.74 (3.2,10.2)	7.27 (4.1,12.8)	11.86 (5.6,24.9)
>\$20,000	2.15 (0.7,7.1)	0.41 (0.1,1.8)	1.31 (0.2,7.1)	2.69 (0.8,9.1)	5.05 (1.6,15.5)	6.44 (2.5,16.4)	9.06 (2.8,29.2)	15.94 (3.6,71.0)
Inc Ref/DK	2.62 (0.5,12.5)	0.46 (0.1,2.0)	1.41 (0.2,8.4)	3.60 (0.5,23.8)	6.34 (1.3,30.4)	9.05 (2.0,40.2)	10.53 (3.0,37.4)	19.90 (2.9,136.4)
Inc missing	2.08 (0.6,6.8)	0.35 (0.1,1.6)	1.12 (0.2,5.1)	3.14 (0.7,15.1)	5.23 (1.4,19.1)	6.67 (2.0,22.8)	7.79 (2.1,29.0)	11.84 (2.8,50.4)
<b>Race/Ethnicity</b>								
Mexican American	1.53 (0.9,2.6)	0.28 (0.1,0.6)	0.75 (0.4,1.4)	1.88 (1.1,3.3)	3.83 (2.2,6.7)	5.51 (3.3,9.2)	6.89 (4.3,11.1)	10.78 (6.4,18.1)
Other Hispanic	1.20 (0.7,2.1)	0.19 (0.1,0.4)	0.56 (0.3,1.1)	1.57 (0.8,3.3)	3.21 (1.6,6.3)	4.58 (2.4,8.7)	5.63 (3.2,9.9)	7.42 (4.6,12.1)
White	1.34 (0.8,2.3)	0.22 (0.1,0.5)	0.64 (0.3,1.4)	1.67 (0.8,3.3)	3.43 (1.9,6.2)	4.88 (3.0,7.9)	6.15 (3.9,9.6)	9.52 (5.9,15.4)
Black	1.86 (1.3,2.8)	0.41 (0.2,0.8)	1.09 (0.6,1.8)	2.45 (1.6,3.7)	4.45 (3.0,6.6)	6.18 (4.0,9.6)	7.80 (5.0,12.1)	10.93 (6.5,18.5)
Other race	4.09 (1.9,8.9)	0.85 (0.3,2.6)	2.48 (0.9,6.6)	5.92 (2.1,16.5)	9.70 (4.8,19.5)	12.99 (6.9,24.4)	15.32 (8.4,27.8)	20.55 (11.8,35.9)

702  
703

Table C-51. Trophic level 3 marine fish usual fish consumption rate estimates, youth &lt;21 years (continued)

Region	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	1.10 (0.6,1.9)	0.17 (0.1,0.4)	0.49 (0.2,1.0)	1.30 (0.7,2.5)	2.63 (1.6,4.4)	4.13 (2.4,7.1)	5.42 (3.1,9.4)	8.79 (4.9,15.7)
Northeast	1.86 (1.1,3.3)	0.33 (0.1,0.8)	0.92 (0.5,1.8)	2.30 (1.3,4.2)	4.68 (2.6,8.4)	6.62 (3.9,11.2)	7.99 (4.9,13.0)	11.74 (7.0,19.8)
South	1.56 (1.0,2.4)	0.29 (0.1,0.6)	0.82 (0.4,1.6)	1.98 (1.2,3.3)	3.90 (2.5,6.1)	5.47 (3.6,8.3)	6.78 (4.4,10.5)	10.06 (6.2,16.4)
West	2.09 (1.0,4.2)	0.33 (0.1,0.8)	0.99 (0.4,2.4)	2.66 (1.1,6.5)	5.39 (2.5,11.7)	7.87 (3.9,15.9)	9.93 (5.1,19.3)	14.29 (8.4,24.4)
<b>Coastal Status</b>								
Noncoastal	1.54 (0.8,3.1)	0.25 (0.1,0.6)	0.71 (0.3,1.7)	1.85 (0.9,4.0)	3.93 (1.9,8.3)	5.76 (3.0,11.2)	7.36 (3.9,14.0)	11.31 (6.1,20.9)
Coastal	1.77 (1.2,2.5)	0.30 (0.2,0.5)	0.87 (0.5,1.4)	2.18 (1.5,3.2)	4.50 (3.1,6.5)	6.48 (4.5,9.4)	8.05 (5.5,11.9)	12.58 (8.2,19.2)
<b>Coastal/Inland Region</b>								
Pacific	1.93 (1.3,2.9)	0.27 (0.1,0.5)	0.82 (0.5,1.4)	2.35 (1.5,3.8)	5.24 (3.2,8.7)	7.62 (4.7,12.3)	9.81 (5.9,16.4)	13.28 (7.7,23.0)
Atlantic	1.84 (1.1,3.0)	0.34 (0.2,0.6)	0.97 (0.5,1.7)	2.28 (1.4,3.8)	4.54 (2.8,7.3)	6.38 (3.8,10.7)	7.97 (4.6,13.7)	12.58 (7.2,21.9)
Gulf of Mexico	1.78 (1.0,3.2)	0.37 (0.1,0.9)	1.06 (0.4,2.6)	2.49 (1.1,5.4)	4.45 (2.4,8.1)	5.67 (3.0,10.6)	6.67 (3.3,13.3)	9.16 (3.5,23.9)
Great Lakes	1.29 (0.7,2.3)	0.21 (0.1,0.4)	0.60 (0.3,1.1)	1.46 (0.8,2.7)	3.17 (1.8,5.6)	5.07 (3.0,8.6)	6.73 (3.8,11.8)	9.32 (4.1,21.1)
Inland Northeast	1.74 (0.9,3.4)	0.31 (0.1,0.8)	0.81 (0.4,1.6)	2.15 (1.1,4.2)	4.53 (2.2,9.2)	6.23 (3.3,11.9)	7.79 (4.0,15.3)	11.61 (5.8,23.1)
Inland Midwest	1.04 (0.4,2.5)	0.16 (0.1,0.4)	0.47 (0.2,1.2)	1.26 (0.5,3.2)	2.48 (1.2,5.3)	3.89 (1.7,9.1)	5.06 (2.1,12.1)	8.29 (3.2,21.5)
Inland South	1.44 (0.8,2.5)	0.26 (0.1,0.5)	0.70 (0.4,1.4)	1.82 (1.0,3.5)	3.65 (2.0,6.6)	5.12 (3.1,8.5)	6.55 (3.8,11.3)	9.72 (5.6,17.0)
Inland West	2.23 (0.7,7.0)	0.39 (0.1,1.5)	1.13 (0.3,4.5)	2.90 (0.8,11.2)	5.50 (1.8,17.1)	8.13 (2.7,24.1)	9.93 (3.7,26.6)	14.99 (5.9,38.4)

704  
705

Table C-52. Trophic level 4 marine fish usual fish consumption rate estimates, all ages

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Total</b>	5.84 (4.4,7.7)	1.07 (0.6,1.9)	3.31 (2.2,5.0)	7.61 (5.6,10.3)	14.38 (10.9,19.0)	20.21 (15.3,26.8)	24.88 (18.7,33.0)	35.99 (26.5,48.9)
<b>Gender</b>								
Female	5.61 (4.2,7.5)	1.02 (0.6,1.8)	3.18 (2.1,4.8)	7.36 (5.3,10.1)	13.82 (10.4,18.4)	19.17 (14.4,25.6)	23.61 (17.6,31.7)	34.12 (24.8,47.0)
Male	6.13 (4.6,8.2)	1.14 (0.6,2.1)	3.50 (2.3,5.4)	7.93 (5.7,11.0)	15.15 (11.2,20.5)	21.24 (15.6,28.9)	26.31 (19.4,35.7)	37.98 (27.5,52.4)
<b>Age</b>								
1 to <3 yrs	1.52 (0.9,2.6)	0.22 (0.1,0.5)	0.71 (0.4,1.4)	1.86 (1.1,3.2)	3.79 (2.3,6.2)	5.79 (3.3,10.1)	7.39 (4.2,12.9)	11.83 (6.1,23.0)
3 to <6 yrs	2.12 (1.2,3.9)	0.31 (0.1,0.7)	1.07 (0.5,2.5)	2.71 (1.4,5.4)	5.34 (3.0,9.6)	7.68 (4.4,13.3)	9.35 (5.8,15.2)	14.08 (8.7,22.8)
6 to <11 yrs	3.21 (1.6,6.3)	0.53 (0.2,1.5)	1.54 (0.7,3.4)	4.10 (2.0,8.6)	8.27 (4.1,16.6)	11.53 (6.2,21.5)	14.17 (7.7,25.9)	21.93 (11.1,43.3)
11 to <16 yrs	2.56 (1.3,4.9)	0.40 (0.2,0.9)	1.19 (0.6,2.5)	3.09 (1.6,5.9)	6.48 (3.3,12.6)	9.83 (4.8,20.0)	12.41 (6.1,25.1)	18.65 (9.3,37.3)
16 to <18 yrs	3.65 (2.1,6.5)	0.51 (0.3,1.0)	1.78 (0.8,3.9)	4.81 (2.3,10.0)	9.51 (5.1,17.8)	13.90 (7.5,25.6)	17.52 (9.3,33.1)	22.40 (13.5,37.2)
18 to <21 yrs	6.01 (3.3,11.0)	0.89 (0.4,1.9)	3.08 (1.4,6.6)	7.54 (4.1,13.9)	15.84 (8.1,30.9)	21.18 (12.0,37.5)	25.68 (14.9,44.2)	39.14 (22.0,69.6)
21 to <35 yrs	5.88 (4.3,8.1)	1.24 (0.7,2.3)	3.54 (2.2,5.7)	7.76 (5.4,11.2)	14.09 (10.2,19.5)	19.40 (13.9,27.0)	23.98 (17.2,33.5)	35.16 (24.0,51.4)
35 to <50 yrs	6.41 (4.8,8.5)	1.66 (1.1,2.6)	4.14 (2.9,5.9)	8.43 (6.3,11.3)	14.97 (11.0,20.4)	20.68 (15.3,27.9)	25.12 (18.3,34.4)	35.77 (25.4,50.3)
50 to <65 yrs	9.31 (6.2,13.9)	2.86 (1.4,5.8)	6.29 (3.8,10.5)	12.33 (8.2,18.6)	20.99 (14.6,30.1)	28.40 (19.8,40.7)	33.54 (23.7,47.5)	49.11 (31.0,77.8)
65+ yrs	6.37 (4.1,10.0)	1.65 (0.9,2.9)	4.00 (2.3,6.9)	8.30 (5.1,13.6)	15.10 (9.9,23.1)	20.41 (13.0,31.9)	25.47 (17.2,37.7)	35.53 (23.6,53.4)
<b>Income</b>								
<\$20,000	4.30 (3.2,5.8)	0.71 (0.4,1.3)	2.26 (1.4,3.5)	5.48 (3.9,7.7)	10.80 (8.0,14.6)	15.36 (11.2,21.1)	18.90 (13.4,26.7)	28.08 (19.5,40.5)
>\$20,000	6.13 (4.6,8.1)	1.18 (0.7,2.1)	3.55 (2.4,5.3)	8.00 (5.9,10.9)	15.07 (11.4,20.0)	20.98 (15.8,27.9)	25.89 (19.5,34.4)	36.95 (27.1,50.3)
Income unknown	6.28 (3.4,11.7)	1.23 (0.4,4.3)	3.63 (1.4,9.5)	8.11 (4.0,16.4)	15.16 (8.6,26.7)	20.46 (12.7,33.1)	25.27 (15.5,41.2)	42.33 (21.3,83.9)
<b>Income, finer detail</b>								
<\$20,000	4.30 (3.2,5.8)	0.71 (0.4,1.3)	2.26 (1.4,3.5)	5.48 (3.9,7.7)	10.80 (8.0,14.6)	15.36 (11.2,21.1)	18.90 (13.4,26.7)	28.08 (19.5,40.5)
\$20k-\$45k	4.97 (3.6,6.8)	0.93 (0.5,1.7)	2.76 (1.8,4.1)	6.44 (4.6,9.0)	12.05 (8.6,16.9)	17.22 (12.1,24.5)	20.95 (14.4,30.5)	31.52 (21.9,45.4)
\$45k-\$75k	5.70 (4.0,8.1)	1.06 (0.6,1.8)	3.17 (2.1,4.8)	7.34 (5.0,10.7)	14.02 (9.8,20.2)	20.11 (14.0,28.8)	24.98 (17.5,35.8)	36.18 (24.7,52.9)
\$75k+	7.34 (5.4,9.9)	1.61 (0.8,3.1)	4.60 (2.9,7.4)	9.75 (7.1,13.5)	17.65 (13.3,23.4)	24.01 (18.4,31.3)	28.96 (22.0,38.2)	41.16 (30.6,55.3)
>\$20,000	6.52 (3.9,10.8)	1.56 (0.6,4.1)	4.27 (1.9,9.4)	8.38 (5.0,14.1)	15.43 (9.4,25.3)	20.31 (12.4,33.3)	26.14 (15.8,43.3)	38.46 (21.6,68.6)
Inc Ref/DK	6.00 (2.8,12.7)	1.26 (0.3,5.0)	3.62 (1.3,10.3)	7.74 (3.6,16.6)	15.06 (6.8,33.3)	19.24 (10.8,34.4)	22.36 (13.5,36.9)	35.36 (17.2,72.6)
Inc missing	6.81 (3.2,14.6)	1.17 (0.3,4.6)	3.69 (1.2,11.5)	8.54 (3.7,20.0)	15.83 (7.7,32.8)	21.93 (10.2,47.3)	28.67 (14.5,56.7)	63.32 (15.2,263.7)
<b>Race/Ethnicity</b>								
Mexican American	4.61 (3.1,7.0)	0.72 (0.4,1.4)	2.35 (1.4,4.1)	5.79 (3.7,9.0)	11.68 (7.5,18.2)	16.86 (11.1,25.5)	21.40 (14.1,32.6)	31.45 (20.9,47.3)
Other Hispanic	4.43 (2.9,6.9)	0.76 (0.4,1.6)	2.45 (1.4,4.1)	5.66 (3.5,9.2)	10.84 (6.6,17.9)	15.83 (10.0,25.1)	19.24 (11.8,31.3)	27.54 (16.3,46.5)
White	6.11 (4.5,8.2)	1.16 (0.6,2.1)	3.53 (2.3,5.4)	7.99 (5.8,11.0)	15.06 (11.2,20.2)	20.87 (15.5,28.2)	25.63 (18.9,34.7)	37.00 (26.8,51.0)
Black	4.85 (3.6,6.6)	0.98 (0.5,1.8)	2.81 (1.8,4.4)	6.30 (4.5,8.9)	11.61 (8.5,15.8)	16.27 (11.9,22.2)	20.70 (15.3,28.0)	30.82 (22.6,42.1)
Other race	8.05 (6.0,10.9)	1.78 (1.0,3.0)	5.33 (3.4,8.3)	10.86 (7.7,15.3)	19.21 (14.1,26.2)	25.55 (18.8,34.8)	30.40 (21.8,42.4)	41.16 (27.2,62.4)

708  
709

Table C-52. Trophic level 4 marine fish usual fish consumption rate estimates, all ages (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	4.38 (3.0,6.3)	0.81 (0.4,1.7)	2.49 (1.4,4.3)	5.73 (3.7,8.8)	10.58 (7.4,15.2)	15.49 (10.9,22.0)	18.57 (12.9,26.7)	26.50 (17.8,39.4)
Northeast	7.58 (5.5,10.5)	1.44 (0.8,2.5)	4.50 (3.0,6.8)	10.21 (7.2,14.5)	18.36 (13.1,25.8)	25.60 (18.3,35.8)	30.78 (21.8,43.5)	44.96 (31.0,65.2)
South	5.23 (4.0,6.8)	0.97 (0.6,1.7)	2.95 (2.0,4.4)	6.84 (5.0,9.3)	12.65 (9.6,16.7)	17.97 (13.6,23.7)	22.34 (16.9,29.6)	32.35 (24.1,43.4)
West	7.10 (5.1,10.0)	1.48 (0.8,2.8)	4.37 (2.7,7.0)	9.46 (6.6,13.5)	16.88 (12.1,23.5)	23.05 (16.6,32.1)	28.67 (20.6,39.9)	40.28 (28.1,57.7)
<b>Coastal Status</b>								
Noncoastal	5.82 (4.0,8.4)	1.04 (0.5,2.1)	3.26 (1.9,5.6)	7.53 (5.1,11.2)	14.37 (10.1,20.4)	20.21 (14.4,28.3)	25.13 (17.7,35.6)	36.34 (25.2,52.3)
Coastal	5.88 (4.2,8.2)	1.12 (0.7,1.9)	3.41 (2.3,5.1)	7.75 (5.4,11.0)	14.42 (10.2,20.4)	20.22 (14.3,28.6)	24.58 (17.2,35.2)	35.13 (24.4,50.6)
<b>Coastal/Inland Region</b>								
Pacific	6.15 (4.3,8.9)	1.13 (0.6,2.0)	3.57 (2.2,5.8)	8.17 (5.5,12.2)	15.16 (10.5,21.8)	20.80 (14.2,30.5)	25.45 (17.7,36.7)	37.10 (27.1,50.8)
Atlantic	6.51 (4.0,10.5)	1.41 (0.8,2.6)	3.90 (2.3,6.7)	8.64 (5.3,14.1)	15.87 (9.9,25.4)	22.06 (13.9,34.9)	26.49 (16.5,42.6)	37.52 (23.1,61.0)
Gulf of Mexico	5.01 (3.0,8.4)	0.96 (0.5,1.9)	2.76 (1.6,4.6)	6.50 (3.8,11.1)	12.20 (7.3,20.4)	16.69 (10.4,26.7)	20.61 (12.7,33.5)	28.63 (18.0,45.5)
Great Lakes	4.42 (2.6,7.6)	0.80 (0.4,1.5)	2.61 (1.5,4.5)	5.85 (3.4,10.1)	10.45 (5.4,20.1)	15.29 (8.7,26.9)	18.73 (10.5,33.4)	25.56 (12.4,52.9)
Inland Northeast	7.98 (5.0,12.7)	1.31 (0.6,2.7)	4.60 (2.6,8.1)	10.84 (6.6,17.8)	19.89 (12.6,31.4)	27.59 (17.4,43.7)	33.63 (21.2,53.4)	49.04 (27.7,86.7)
Inland Midwest	4.37 (2.7,7.1)	0.82 (0.3,2.0)	2.47 (1.3,4.7)	5.69 (3.3,10.0)	10.58 (6.8,16.6)	15.54 (9.6,25.2)	18.55 (12.0,28.7)	26.56 (17.2,40.9)
Inland South	4.91 (3.5,7.0)	0.87 (0.5,1.7)	2.76 (1.7,4.6)	6.43 (4.3,9.6)	12.00 (8.6,16.8)	16.82 (12.2,23.3)	21.10 (15.0,29.6)	30.07 (21.5,42.1)
Inland West	8.04 (4.5,14.5)	1.96 (0.6,6.7)	5.30 (2.3,12.4)	10.68 (6.0,19.1)	18.42 (11.2,30.3)	26.30 (15.1,45.7)	31.89 (18.7,54.3)	43.36 (26.2,71.7)

710  
711

712  
713

**Table C-53. Trophic level 4 marine fish usual fish consumption rate estimates, adults ≥21 years**

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Adults</b>	6.92 (5.3,9.1)	1.72 (1.1,2.8)	4.36 (3.0,6.2)	9.10 (6.8,12.2)	16.18 (12.2,21.5)	22.23 (16.7,29.7)	27.42 (20.6,36.4)	38.50 (28.2,52.6)
<b>Gender</b>								
Female	6.60 (5.0,8.8)	1.61 (1.0,2.6)	4.17 (2.9,6.1)	8.74 (6.5,11.8)	15.52 (11.7,20.6)	21.39 (15.9,28.7)	26.14 (19.3,35.3)	36.56 (26.2,50.9)
Male	7.32 (5.4,10.0)	1.86 (1.1,3.1)	4.64 (3.2,6.8)	9.57 (6.8,13.4)	16.97 (12.1,23.8)	23.59 (17.1,32.5)	29.29 (21.5,39.9)	40.78 (29.0,57.4)
<b>Age</b>								
21 to <35 yrs	5.88 (4.3,8.1)	1.24 (0.7,2.3)	3.54 (2.2,5.7)	7.76 (5.4,11.2)	14.09 (10.2,19.5)	19.40 (13.9,27.0)	23.98 (17.2,33.5)	35.16 (24.0,51.4)
35 to <50 yrs	6.41 (4.8,8.5)	1.66 (1.1,2.6)	4.14 (2.9,5.9)	8.43 (6.3,11.3)	14.97 (11.0,20.4)	20.68 (15.3,27.9)	25.12 (18.3,34.4)	35.77 (25.4,50.3)
50 to <65 yrs	9.31 (6.2,13.9)	2.86 (1.4,5.8)	6.29 (3.8,10.5)	12.33 (8.2,18.6)	20.99 (14.6,30.1)	28.40 (19.8,40.7)	33.54 (23.7,47.5)	49.11 (31.0,77.8)
65+ yrs	6.37 (4.1,10.0)	1.65 (0.9,2.9)	4.00 (2.3,6.9)	8.30 (5.1,13.6)	15.10 (9.9,23.1)	20.41 (13.0,31.9)	25.47 (17.2,37.7)	35.53 (23.6,53.4)
<b>WCA (13-49 years)</b>	5.44 (4.1,7.2)	1.06 (0.6,1.8)	3.22 (2.1,4.8)	7.28 (5.3,10.0)	13.13 (10.0,17.3)	18.01 (13.5,24.0)	22.07 (16.4,29.7)	31.85 (22.7,44.7)
<b>Income</b>								
<\$20,000	5.06 (3.7,6.9)	1.01 (0.6,1.8)	2.93 (1.9,4.5)	6.62 (4.8,9.2)	12.29 (9.0,16.7)	17.23 (12.5,23.7)	21.26 (15.2,29.7)	31.10 (21.5,44.9)
>\$20,000	7.25 (5.5,9.5)	1.89 (1.2,3.0)	4.67 (3.3,6.7)	9.51 (7.1,12.8)	16.78 (12.6,22.4)	23.09 (17.3,30.8)	28.37 (21.2,37.9)	39.36 (28.7,54.0)
Income unknown	7.24 (3.9,13.3)	1.71 (0.6,5.3)	4.49 (2.0,10.2)	9.28 (4.9,17.4)	16.60 (9.7,28.3)	21.89 (13.6,35.2)	28.04 (16.6,47.5)	49.04 (18.7,128.8)
<b>Income, finer detail</b>								
<\$20,000	5.06 (3.7,6.9)	1.01 (0.6,1.8)	2.93 (1.9,4.5)	6.62 (4.8,9.2)	12.29 (9.0,16.7)	17.23 (12.5,23.7)	21.26 (15.2,29.7)	31.10 (21.5,44.9)
\$20k-\$45k	5.80 (4.2,8.0)	1.39 (0.9,2.3)	3.65 (2.5,5.3)	7.56 (5.4,10.6)	13.70 (9.8,19.2)	18.42 (12.4,27.3)	22.70 (15.4,33.5)	33.88 (23.5,48.8)
\$45k-\$75k	6.71 (4.7,9.5)	1.67 (1.0,2.7)	4.14 (2.8,6.2)	8.76 (6.0,12.7)	15.70 (10.9,22.7)	21.88 (15.1,31.6)	27.22 (19.1,38.9)	37.98 (25.6,56.3)
\$75k+	8.82 (6.7,11.7)	2.69 (1.6,4.6)	6.08 (4.1,9.1)	11.59 (8.6,15.6)	20.08 (15.3,26.3)	26.86 (20.5,35.3)	31.75 (23.8,42.4)	44.86 (33.0,61.1)
>\$20,000	7.30 (4.6,11.7)	2.17 (1.0,4.9)	5.00 (2.8,9.0)	9.33 (5.6,15.6)	16.44 (10.1,26.7)	21.97 (13.1,36.9)	29.01 (17.3,48.6)	38.75 (21.9,68.4)
Inc Ref/DK	6.68 (3.5,12.9)	1.66 (0.5,5.2)	4.29 (1.8,10.2)	8.70 (4.4,17.1)	15.31 (8.6,27.1)	20.58 (12.0,35.3)	25.27 (14.6,43.6)	42.38 (15.6,114.9)
Inc missing	8.48 (3.7,19.6)	1.83 (0.4,8.1)	5.10 (1.6,16.3)	10.60 (4.4,25.4)	18.46 (8.7,39.2)	28.04 (13.0,60.3)	35.71 (16.5,77.4)	68.66 (13.9,339.5)
<b>Race/Ethnicity</b>								
Mexican American	5.78 (3.9,8.5)	1.24 (0.6,2.4)	3.38 (2.1,5.4)	7.40 (5.0,11.0)	14.01 (9.3,21.2)	19.72 (13.2,29.4)	24.55 (16.1,37.5)	34.41 (23.6,50.2)
Other Hispanic	5.54 (3.5,8.7)	1.39 (0.7,2.6)	3.43 (2.0,5.8)	7.20 (4.3,12.0)	12.98 (7.9,21.4)	18.20 (11.4,29.1)	21.51 (12.7,36.4)	33.58 (22.5,50.2)
White	7.09 (5.3,9.5)	1.79 (1.1,3.0)	4.50 (3.1,6.5)	9.35 (6.9,12.7)	16.50 (12.2,22.3)	22.65 (16.7,30.7)	28.04 (20.7,37.9)	38.98 (28.1,54.1)
Black	5.91 (4.4,8.0)	1.52 (0.9,2.7)	3.73 (2.5,5.6)	7.77 (5.5,10.9)	13.41 (9.7,18.5)	19.10 (14.2,25.6)	23.74 (17.5,32.1)	33.83 (24.3,47.1)
Other race	9.62 (7.0,13.2)	3.04 (1.8,5.1)	6.86 (4.6,10.2)	12.87 (8.9,18.7)	21.44 (15.3,30.0)	27.52 (18.7,40.4)	34.12 (23.9,48.8)	44.54 (29.0,68.4)

714  
715

716  
717

Table C-53. Trophic level 4 marine fish usual fish consumption rate estimates, adults ≥21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	5.19 (3.6,7.5)	1.31 (0.7,2.4)	3.31 (2.0,5.3)	6.84 (4.6,10.2)	11.92 (8.3,17.2)	16.78 (11.7,24.1)	20.01 (13.6,29.5)	28.75 (19.5,42.5)
Northeast	8.91 (6.5,12.3)	2.21 (1.3,3.7)	5.72 (3.8,8.5)	12.07 (8.7,16.8)	21.11 (15.3,29.1)	28.71 (20.7,39.8)	33.93 (24.2,47.6)	49.04 (33.4,71.9)
South	6.26 (4.8,8.2)	1.57 (1.0,2.6)	3.92 (2.8,5.6)	8.20 (6.1,11.0)	14.50 (10.9,19.2)	20.36 (15.4,26.9)	24.64 (18.6,32.5)	35.19 (25.8,48.0)
West	8.39 (6.0,11.7)	2.40 (1.4,4.2)	5.75 (3.7,8.9)	11.11 (7.9,15.7)	19.02 (13.8,26.3)	26.41 (18.8,37.2)	31.71 (22.3,45.1)	42.98 (29.8,61.9)
<b>Coastal Status</b>								
Noncoastal	6.88 (4.9,9.6)	1.66 (0.9,3.0)	4.28 (2.7,6.7)	9.02 (6.3,12.9)	16.10 (11.6,22.3)	22.22 (16.0,30.9)	27.89 (19.6,39.6)	38.50 (27.0,54.8)
Coastal	6.99 (4.9,10.0)	1.83 (1.1,3.1)	4.49 (2.9,6.8)	9.23 (6.3,13.4)	16.30 (11.3,23.4)	22.31 (15.5,32.0)	26.93 (18.7,38.8)	38.46 (27.2,54.4)
<b>Coastal/Inland Region</b>								
Pacific	7.29 (5.2,10.3)	1.82 (1.0,3.2)	4.66 (3.0,7.3)	9.65 (6.6,14.2)	17.09 (12.2,24.0)	22.83 (15.7,33.1)	27.93 (19.9,39.3)	41.12 (30.0,56.3)
Atlantic	7.66 (4.6,12.6)	2.12 (1.1,4.2)	4.96 (2.7,9.0)	10.19 (6.1,17.0)	17.73 (10.8,29.1)	23.96 (14.7,39.0)	29.46 (18.5,46.8)	40.34 (24.6,66.1)
Gulf of Mexico	5.93 (3.7,9.6)	1.47 (0.8,2.6)	3.67 (2.3,5.9)	7.90 (4.7,13.4)	13.58 (8.4,22.0)	17.80 (11.3,28.1)	22.38 (13.8,36.4)	34.69 (17.7,67.9)
Great Lakes	5.39 (3.0,9.6)	1.40 (0.7,3.0)	3.64 (2.1,6.4)	7.08 (3.9,12.9)	12.02 (6.0,24.0)	16.89 (9.0,31.8)	21.25 (12.6,35.7)	28.54 (15.1,54.1)
Inland Northeast	9.33 (6.0,14.4)	1.99 (1.0,3.9)	5.73 (3.4,9.5)	12.77 (8.0,20.3)	22.18 (14.4,34.1)	30.60 (19.3,48.6)	37.31 (22.8,61.2)	50.92 (30.7,84.5)
Inland Midwest	5.14 (3.3,8.0)	1.30 (0.6,2.6)	3.24 (1.8,5.7)	6.77 (4.2,11.0)	11.86 (8.0,17.7)	16.78 (11.0,25.7)	20.01 (13.2,30.3)	28.78 (18.4,45.0)
Inland South	5.93 (4.2,8.3)	1.45 (0.8,2.8)	3.75 (2.3,6.0)	7.69 (5.4,11.0)	13.90 (9.9,19.4)	19.35 (13.9,27.0)	23.30 (16.9,32.2)	33.88 (23.8,48.3)
Inland West	9.59 (5.4,16.9)	3.32 (1.0,10.6)	6.97 (3.2,15.1)	12.59 (7.3,21.8)	21.06 (12.7,34.9)	28.76 (16.9,48.9)	34.72 (20.4,59.0)	44.19 (27.7,70.5)

718

719  
720

Table C-54. Trophic level 4 marine fish usual fish consumption rate estimates, youth &lt;21 years

	Percentiles (95% CI)							
	Mean (95% CI)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>All Youth</b>	3.17 (1.9,5.2)	0.44 (0.2,0.9)	1.37 (0.7,2.6)	3.79 (2.1,6.8)	8.02 (4.9,13.2)	12.15 (7.4,19.8)	15.96 (9.5,26.8)	23.22 (15.1,35.7)
<b>Gender</b>								
Female	2.89 (1.8,4.6)	0.41 (0.2,0.9)	1.25 (0.7,2.3)	3.48 (2.0,6.0)	7.41 (4.6,11.9)	11.06 (7.1,17.2)	14.49 (9.2,22.9)	20.71 (13.7,31.3)
Male	3.45 (2.0,5.9)	0.47 (0.2,1.0)	1.51 (0.8,3.0)	4.12 (2.2,7.7)	8.61 (5.1,14.6)	13.42 (7.4,24.3)	17.22 (9.8,30.3)	25.95 (15.6,43.2)
<b>Age</b>								
1 to <3 yrs	1.52 (0.9,2.6)	0.22 (0.1,0.5)	0.71 (0.4,1.4)	1.86 (1.1,3.2)	3.79 (2.3,6.2)	5.79 (3.3,10.1)	7.39 (4.2,12.9)	11.83 (6.1,23.0)
3 to <6 yrs	2.12 (1.2,3.9)	0.31 (0.1,0.7)	1.07 (0.5,2.5)	2.71 (1.4,5.4)	5.34 (3.0,9.6)	7.68 (4.4,13.3)	9.35 (5.8,15.2)	14.08 (8.7,22.8)
6 to <11 yrs	3.21 (1.6,6.3)	0.53 (0.2,1.5)	1.54 (0.7,3.4)	4.10 (2.0,8.6)	8.27 (4.1,16.6)	11.53 (6.2,21.5)	14.17 (7.7,25.9)	21.93 (11.1,43.3)
11 to <16 yrs	2.56 (1.3,4.9)	0.40 (0.2,0.9)	1.19 (0.6,2.5)	3.09 (1.6,5.9)	6.48 (3.3,12.6)	9.83 (4.8,20.0)	12.41 (6.1,25.1)	18.65 (9.3,37.3)
16 to <18 yrs	3.65 (2.1,6.5)	0.51 (0.3,1.0)	1.78 (0.8,3.9)	4.81 (2.3,10.0)	9.51 (5.1,17.8)	13.90 (7.5,25.6)	17.52 (9.3,33.1)	22.40 (13.5,37.2)
18 to <21 yrs	6.01 (3.3,11.0)	0.89 (0.4,1.9)	3.08 (1.4,6.6)	7.54 (4.1,13.9)	15.84 (8.1,30.9)	21.18 (12.0,37.5)	25.68 (14.9,44.2)	39.14 (22.0,69.6)
<b>Income</b>								
<\$20,000	2.72 (1.9,4.0)	0.38 (0.2,0.8)	1.16 (0.7,2.1)	3.31 (2.0,5.4)	6.96 (4.8,10.2)	10.44 (7.0,15.5)	13.35 (8.8,20.3)	21.13 (13.4,33.3)
>\$20,000	3.23 (1.9,5.5)	0.45 (0.2,0.9)	1.40 (0.7,2.7)	3.85 (2.1,7.0)	8.12 (4.8,13.8)	12.40 (7.2,21.3)	16.25 (9.2,28.6)	23.81 (15.0,37.8)
Income unknown	4.09 (1.8,9.2)	0.58 (0.2,1.8)	2.01 (0.6,7.2)	4.84 (1.8,12.9)	10.51 (4.0,27.8)	16.63 (6.2,44.8)	19.54 (8.8,43.3)	23.76 (8.7,64.9)
<b>Income, finer detail</b>								
<\$20,000	2.72 (1.9,4.0)	0.38 (0.2,0.8)	1.16 (0.7,2.1)	3.31 (2.0,5.4)	6.96 (4.8,10.2)	10.44 (7.0,15.5)	13.35 (8.8,20.3)	21.13 (13.4,33.3)
\$20k-\$45k	2.89 (1.6,5.2)	0.40 (0.2,0.8)	1.21 (0.6,2.3)	3.25 (1.9,5.7)	6.97 (4.1,11.8)	10.94 (6.2,19.3)	14.35 (7.8,26.3)	22.31 (12.4,40.2)
\$45k-\$75k	2.89 (1.7,4.8)	0.40 (0.2,0.8)	1.23 (0.7,2.3)	3.25 (1.9,5.5)	7.27 (4.3,12.4)	11.56 (6.5,20.6)	14.55 (8.4,25.3)	22.60 (12.1,42.3)
\$75k+	3.66 (2.0,6.6)	0.52 (0.2,1.2)	1.70 (0.8,3.7)	4.62 (2.3,9.4)	9.29 (5.2,16.7)	14.16 (7.3,27.3)	17.31 (10.1,29.6)	25.25 (16.4,38.8)
>\$20,000	4.01 (1.6,9.8)	0.79 (0.2,3.1)	2.02 (0.8,5.2)	5.14 (1.8,14.5)	9.96 (3.8,26.4)	13.38 (5.9,30.5)	18.42 (6.7,50.8)	22.42 (9.4,53.3)
Inc Ref/DK	4.16 (1.0,17.5)	0.50 (0.2,1.6)	1.93 (0.4,8.9)	4.86 (1.1,21.0)	11.11 (2.1,57.5)	16.63 (3.2,86.5)	18.99 (5.0,72.1)	21.87 (7.2,66.9)
Inc missing	4.00 (1.7,9.4)	0.69 (0.2,2.8)	2.13 (0.6,7.8)	4.78 (1.8,13.0)	9.51 (4.2,21.3)	16.50 (6.2,43.8)	20.16 (7.7,52.5)	24.72 (4.4,140.0)
<b>Race/Ethnicity</b>								
Mexican American	2.82 (1.6,4.9)	0.39 (0.2,0.8)	1.20 (0.6,2.3)	3.31 (1.8,6.0)	7.12 (4.0,12.7)	10.86 (6.0,19.5)	14.17 (7.7,26.0)	23.18 (12.1,44.4)
Other Hispanic	2.40 (1.5,3.9)	0.31 (0.2,0.6)	1.05 (0.5,2.1)	2.95 (1.8,5.0)	6.18 (3.8,10.0)	9.27 (5.7,15.1)	11.47 (7.0,18.8)	18.84 (10.5,33.7)
White	3.25 (1.8,5.8)	0.44 (0.2,1.0)	1.36 (0.7,2.7)	3.84 (2.0,7.4)	8.15 (4.6,14.3)	12.53 (7.1,22.2)	16.82 (8.9,31.8)	24.61 (14.9,40.6)
Black	2.73 (1.9,4.0)	0.49 (0.2,1.0)	1.39 (0.8,2.5)	3.39 (2.2,5.3)	6.82 (4.7,10.0)	10.03 (6.8,14.7)	12.41 (8.6,17.9)	17.69 (11.1,28.2)
Other race	4.71 (3.0,7.4)	0.69 (0.3,1.4)	2.34 (1.3,4.3)	6.39 (3.4,11.9)	11.94 (7.5,19.0)	16.74 (11.1,25.2)	20.26 (13.7,30.0)	29.89 (18.9,47.3)

721  
722

Table C-54. Trophic level 4 marine fish usual fish consumption rate estimates, youth &lt;21 years (continued)

	Mean (95% CI)	Percentiles (95% CI)						
		25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	97 <sup>th</sup>	99 <sup>th</sup>
<b>Region</b>								
Midwest	2.32 (1.5,3.7)	0.33 (0.2,0.7)	0.95 (0.5,1.8)	2.73 (1.5,4.8)	5.64 (3.6,8.8)	8.39 (5.6,12.7)	11.37 (7.2,17.9)	19.47 (11.8,32.2)
Northeast	4.09 (2.3,7.2)	0.60 (0.3,1.4)	1.97 (0.9,4.2)	5.04 (2.8,8.9)	10.97 (5.7,21.1)	16.66 (8.0,34.5)	20.28 (10.4,39.4)	25.88 (12.8,52.4)
South	2.61 (1.7,4.0)	0.40 (0.2,0.8)	1.17 (0.7,1.9)	3.14 (2.0,5.0)	6.67 (4.2,10.5)	9.63 (6.4,14.5)	12.05 (8.1,18.0)	18.96 (12.1,29.8)
West	4.14 (2.2,7.9)	0.62 (0.2,1.6)	1.99 (0.8,4.8)	5.15 (2.4,10.9)	10.52 (5.6,19.9)	15.09 (8.7,26.3)	18.57 (11.3,30.5)	29.89 (16.7,53.4)
<b>Coastal Status</b>								
Noncoastal	3.21 (1.7,6.2)	0.44 (0.2,1.0)	1.36 (0.6,3.0)	3.81 (1.8,8.0)	8.10 (4.2,15.7)	12.40 (6.4,24.2)	16.39 (8.1,33.0)	23.77 (13.9,40.7)
Coastal	3.09 (2.2,4.4)	0.44 (0.2,0.8)	1.38 (0.8,2.2)	3.77 (2.5,5.7)	7.90 (5.6,11.2)	11.57 (8.1,16.5)	15.44 (10.6,22.5)	22.00 (13.8,35.0)
<b>Coastal/Inland Region</b>								
Pacific	3.21 (2.0,5.1)	0.46 (0.2,0.9)	1.42 (0.8,2.4)	4.11 (2.6,6.6)	8.28 (5.2,13.1)	12.41 (7.5,20.5)	15.67 (9.2,26.6)	21.19 (9.3,48.4)
Atlantic	3.39 (2.2,5.3)	0.51 (0.3,1.0)	1.60 (0.9,2.8)	4.12 (2.5,6.7)	8.71 (5.3,14.4)	12.52 (7.8,20.0)	16.30 (10.0,26.5)	23.48 (13.8,40.0)
Gulf of Mexico	2.99 (1.3,6.7)	0.41 (0.2,1.0)	1.24 (0.6,2.6)	3.42 (1.5,7.7)	7.28 (3.3,16.2)	10.54 (5.3,20.9)	14.94 (6.1,36.8)	25.25 (9.2,68.9)
Great Lakes	2.25 (1.2,4.3)	0.34 (0.2,0.7)	0.96 (0.5,1.8)	2.66 (1.5,4.8)	5.38 (2.5,11.7)	7.88 (3.2,19.4)	9.97 (3.6,28.0)	19.87 (11.6,34.1)
Inland Northeast	4.39 (2.2,8.8)	0.61 (0.2,1.6)	2.04 (0.8,5.0)	5.45 (2.6,11.2)	12.20 (5.2,28.4)	17.84 (7.6,41.7)	21.41 (9.9,46.1)	26.67 (11.8,60.4)
Inland Midwest	2.34 (1.1,5.0)	0.32 (0.1,0.8)	0.95 (0.4,2.1)	2.74 (1.2,6.2)	5.75 (2.8,11.7)	8.66 (4.4,17.0)	11.46 (5.5,23.7)	19.34 (8.0,46.5)
Inland South	2.29 (1.4,3.6)	0.38 (0.2,0.8)	1.07 (0.6,1.9)	2.83 (1.7,4.7)	6.13 (3.6,10.5)	8.51 (5.4,13.5)	10.46 (6.6,16.7)	16.39 (9.6,27.9)
Inland West	4.92 (1.7,14.5)	0.81 (0.2,3.5)	2.48 (0.6,9.6)	6.21 (1.8,20.9)	12.20 (4.2,35.3)	16.74 (7.1,39.5)	21.05 (9.3,47.4)	35.55 (13.0,97.3)

723  
724  
725

726  
727

Table C-55. Number reporting fish consumption on either 24-hr recall, but not both, by fish type

Commented [PG5]: Add for clarity if true.

	N	Total fish	Total finfish	Total shellfish	Freshwater	Marine	Estuarine	FW+Est	Marine+ Est	Marine+ FW	Trophic Level 2	Trophic Level 3	Trophic Level 4	FW+Est TL2	FW+Est TL3	FW+Est TL4	Marine TL2	Marine TL3	Marine TL4
<b>Total</b>	29,463	6,890	5,320	2,439	2,263	6,285	4,849	4,964	6,782	6,797	2,705	4,463	4,546	2,705	3,652	2,568	2,370	4,203	4,216
<b>Gender</b>																			
Female	15,694	3,806	2,924	1,345	1,199	3,494	2,675	2,725	3,758	3,759	1,494	2,434	2,498	1,494	2,012	1,382	1,308	2,307	2,338
Male	13,769	3,084	2,396	1,094	1,064	2,791	2,174	2,239	3,024	3,038	1,211	2,029	2,048	1,211	3,652	1,186	1,062	1,896	1,878
<b>Age, years</b>																			
1 to <3	2,325	345	272	98	104	305	193	204	334	343	111	209	242	111	137	101	94	194	219
3 to <6	2,185	350	277	104	92	322	200	200	350	346	118	225	246	118	141	96	100	211	229
6 to <11	2,705	454	367	126	116	416	264	270	449	447	143	286	313	143	197	127	120	271	297
11 to <16	2,806	445	322	162	123	402	310	318	437	439	180	296	268	180	235	140	158	280	247
16 to <18	1,417	252	171	96	68	237	176	180	248	250	98	173	155	98	144	87	95	164	143
18 to <21	1,662	311	227	128	67	294	211	213	309	308	131	209	197	131	180	96	126	199	184
21 to <35	4,381	1,070	761	489	312	992	806	815	1,063	1,051	531	745	645	531	660	369	475	713	611
35 to <50	4,522	1,332	1,023	497	454	1,221	109	1,018	1,323	1,309	566	883	839	566	765	517	488	835	795
50 to <65	3,730	1,216	971	424	472	1,101	889	918	1,189	1,208	468	775	836	468	658	526	413	723	761
65 and older	3,730	1,115	929	315	455	995	791	828	1,080	1,096	359	662	805	359	535	509	301	613	730
WCA (13 to 49 years)	7,870	1,919	1,409	768	537	1,785	1,407	1,421	1,906	1,889	839	1,300	1,179	839	1,112	668	749	1,243	1,121
<b>Income</b>																			
<\$20k	6,679	1,374	1,091	432	395	1,256	894	920	1,350	1,358	491	911	926	491	705	470	430	857	852
\$20k to <\$45k	8,955	1,968	1,501	695	645	1,774	1,366	1,405	1,931	1,950	791	1,285	1,258	791	1,044	684	686	1,205	1,145
\$45k to <\$75k	5,561	1,334	1,039	465	477	1,211	955	979	1,313	1,316	511	856	898	511	708	530	449	799	836
\$75k and over	6,288	1,768	1,352	687	600	1,634	1,314	1,336	1,746	1,730	740	1,108	1,166	740	953	713	655	1,051	1,104
>\$20k	825	203	149	72	74	182	152	153	202	200	86	140	126	86	108	74	68	136	120
Ref/DK income	808	164	126	57	54	153	115	118	161	164	57	111	116	57	91	67	53	107	108
Income missing	347	79	62	31	18	75	53	53	79	79	29	52	56	29	43	30	29	48	51
<b>Race/Ethnicity</b>																			
Mexican American	6,868	1,350	970	524	414	1,212	944	961	1,333	1,337	618	886	823	618	725	420	523	848	776
Other Hispanic	2,405	532	403	177	160	490	352	353	531	531	202	329	348	202	252	163	170	316	332
Non-Hispanic white	11,980	2,678	2,075	955	811	2,509	1,855	1,904	2,630	2,627	1,006	1,573	1,835	1,006	1,330	1,017	909	1,513	1,737
Non-Hispanic black	6,734	1,818	1,464	589	672	1,603	1,294	1,333	1,784	1,803	669	1,291	1,184	669	1,015	722	579	1,162	1,038
Other race	1,476	512	408	194	206	471	404	413	504	499	210	384	356	210	330	246	189	364	333
<b>US Region</b>																			
Midwest	6,445	1,235	968	381	410	1,070	796	855	1,178	1,214	431	773	840	431	608	454	374	702	718
Northeast	4,475	1,202	912	447	316	1,154	811	814	1,200	1,192	445	733	806	445	606	410	403	717	790
South	11,036	2,687	21,090	950	939	2,415	1,921	1,965	2,646	2,648	1,086	1,827	1,732	1,086	1,469	1,002	944	1,692	1,581
West	7,507	1,766	1,331	661	598	1,646	1,321	1,330	1,758	1,743	743	1,130	1,168	743	969	702	649	1,092	1,127
<b>Coastal Status</b>																			
Noncoastal	17,251	3,718	2,903	1,214	1,247	3,376	2,499	2,584	3,637	3,682	1,344	2,362	2,546	1,344	1,888	1,380	1,184	2,213	2,332
Coastal	12,212	3,172	2,417	1,225	1,016	2,909	2,350	2,380	3,145	3,115	1,361	2,101	2,000	1,361	1,764	1,188	1,186	1,990	1,884
<b>US Coastal/Inland</b>																			
Pacific	3,802	976	747	369	349	900	743	747	972	963	425	621	644	425	528	402	362	599	624
Atlantic	4,646	1,320	1,011	488	382	1,247	954	960	1,315	1,299	524	865	835	524	706	469	465	844	810
Gulf of Mexico	1,370	361	275	186	125	316	289	296	355	351	203	269	202	203	243	131	180	240	178
Great Lakes	2,394	515	384	182	160	446	364	377	503	502	209	346	319	209	287	186	179	307	272
Inland Northeast	2,584	628	476	229	169	600	415	416	628	623	234	364	416	234	308	199	205	356	411
Inland Midwest	4,137	741	602	203	254	645	441	487	696	733	226	437	539	226	329	274	199	405	463
Inland South	6,825	1,559	1,241	490	575	1,385	1,065	1,098	1,527	1,546	566	1,052	1,067	566	810	607	493	959	955
Inland West	3,705	790	584	292	249	746	578	583	786	780	318	509	524	318	441	300	287	493	503

728  
729

730  
731

Table C-56. Unweighted number of NHANES participants reporting fish consumption on both 24-hr recalls, by fish type

Deleted: N

	Total fish	Total finfish	Total shellfish	Fresh-water	Marine	Estuarine	FW+Est	Marine +Est	Marine +FW	Trophics Level 2	Trophics Level 3	Trophics Level 4	FW+Est TL2	FW+Est TL3	FW+Est TL4	Marine TL2	Marine TL3	Marine TL4
<b>Total</b>	892	568	147	129	751	476	501	863	866	172	381	410	172	270	163	136	347	380
<b>Gender</b>																		
Female	454	275	77	66	382	242	257	438	443	87	191	197	87	133	80	69	175	180
Male	438	293	70	63	369	234	244	425	423	85	190	213	85	137	83	67	172	200
<b>Age, years</b>																		
1 to <3	24	16	<10	<10	19	16	16	24	24	<10	14	13	<10	10	<10	<10	12	11
3 to <6	42	32	<10	<10	31	11	14	39	42	<10	24	22	<10	10	<10	<10	18	18
6 to <11	33	24	<10	<10	30	14	14	33	32	<10	16	17	<10	10	<10	<10	15	16
11 to <16	36	20	<10	<10	32	23	23	36	35	<10	22	15	<10	15	<10	<10	20	14
16 to <18	22	18	<10	<10	19	<10	11	20	22	<10	10	15	<10	<10	<10	<10	<10	13
18 to <21	29	16	<10	<10	26	11	11	29	28	<10	13	15	<10	<10	<10	<10	12	15
21 to <35	152	83	24	22	126	83	86	148	149	28	63	64	28	45	27	21	58	58
35 to <50	194	115	46	26	166	123	129	188	189	53	98	77	53	79	35	44	92	74
50 to <65	184	124	26	23	159	92	94	180	179	28	73	86	28	51	34	23	68	81
65 and older	176	120	23	34	143	94	103	166	166	30	48	86	30	35	37	22	43	80
WCA (13 to 49 years)	223	121	45	30	183	130	138	214	218	53	101	86	53	77	34	40	93	77
<b>Income</b>																		
<\$20k	143	99	15	17	115	60	64	138	133	18	70	74	18	44	27	14	63	65
\$20k to <\$45k	224	147	39	38	173	112	121	213	219	50	91	100	50	61	33	37	80	90
\$45k to <\$75k	189	119	32	29	162	92	101	179	185	37	80	90	37	55	31	29	71	83
\$75k and over	282	166	49	37	256	179	180	282	276	54	114	125	54	90	62	45	109	122
>\$20k	24	18	<10	<10	20	14	15	23	24	<10	11	11	<10	<10	<10	<10	10	10
Ref/DK income	19	12	<10	<10	16	12	12	19	19	<10	<10	<10	<10	<10	<10	<10	<10	<10
Income missing	10	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
<b>Race/Ethnicity</b>																		
Mexican American	94	57	14	11	79	44	45	93	93	22	43	43	22	25	10	15	42	41
Other Hispanic	67	38	14	<10	56	34	36	65	67	16	28	30	16	19	10	12	27	29
Non-Hispanic white	374	228	61	45	327	201	213	363	358	68	126	174	68	97	70	57	117	167
Non-Hispanic black	250	175	34	51	199	131	137	240	242	40	128	107	40	86	43	32	107	93
Other race	107	70	24	18	90	66	70	102	106	26	56	56	26	43	30	20	54	50
<b>US Region</b>																		
Midwest	126	88	19	19	101	53	63	117	122	22	46	64	22	30	21	17	40	61
Northeast	187	108	32	25	168	105	107	184	180	34	64	87	34	53	37	29	61	82
South	348	224	63	50	283	186	193	338	337	74	176	152	74	118	58	57	155	135
West	231	148	33	35	199	132	138	224	227	42	95	107	42	69	47	33	91	102
<b>Coastal Status</b>																		
Noncoastal	418	272	58	69	350	199	211	404	407	70	173	212	70	106	85	55	159	198
Coastal	474	296	89	60	401	277	290	459	459	102	208	198	102	164	78	81	188	182
<b>US Coastal/Inland</b>																		
Pacific	146	97	22	22	125	88	92	142	145	29	64	64	29	51	26	22	61	60
Atlantic	200	114	36	23	174	120	121	198	189	41	83	75	41	60	31	29	79	70
Gulf of Mexico	69	41	21	<10	56	44	47	65	68	20	40	29	20	37	13	20	32	24
Great Lakes	59	44	10	<10	46	25	30	54	57	12	21	30	12	16	8	10	16	28
Inland Northeast	89	58	15	13	80	45	45	88	85	17	31	50	17	24	20	15	30	48
Inland Midwest	68	44	<10	12	55	28	34	63	66	10	25	34	10	14	13	<10	24	33
Inland South	176	119	23	31	141	82	86	171	174	30	86	85	30	50	31	22	75	75
Inland West	85	51	11	13	74	44	46	82	82	13	31	43	13	18	21	11	30	42

732