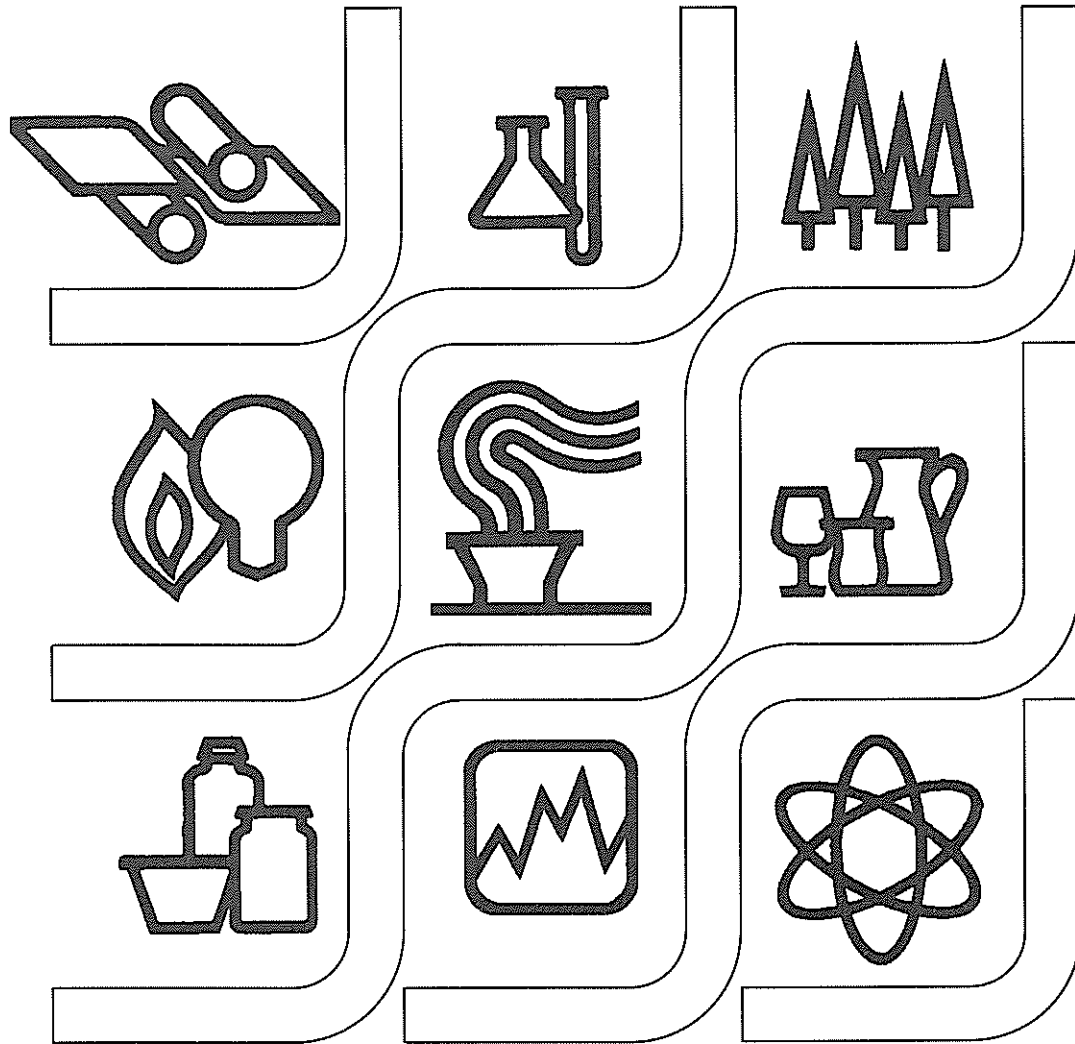




CURRENT INDUSTRIAL REPORTS
**Pollution Abatement
Costs and Expenditures, 1992**

MA200(92)-1



U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

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Acknowledgments

This report was prepared under the direction of **John Berry**, Assistant Division Chief for Economic Indicator Programs, Industry Division. Within the Industry Division, the preparation of this report was performed under the supervision of **Thomas Flood**, Chief, Technology and Innovation Branch.

Review and analysis of the MA200, Survey of Pollution Abatement Costs and Expenditures data were performed by **Gretchen Dickson** with the assistance of **Jesse Havard** and **Carol Muschette**.

The electronic computer programs for the MA200 were developed under the direction of **Deborah Tasky**, Chief, Current Industry Programming Branch, assisted by **Anne Linonis**, **Steven Potemkin**, **Samuel Jones**, **Mark Markovic**, and **Nicholas Spanos**.

Gretchen Dickson developed the programming and processing system and conducted the review and analysis of the PA-2, Plant and Equipment Survey: Supplement for Pollution Abatement.

Lillie M. Skinner coordinated the various phases of the publication process.

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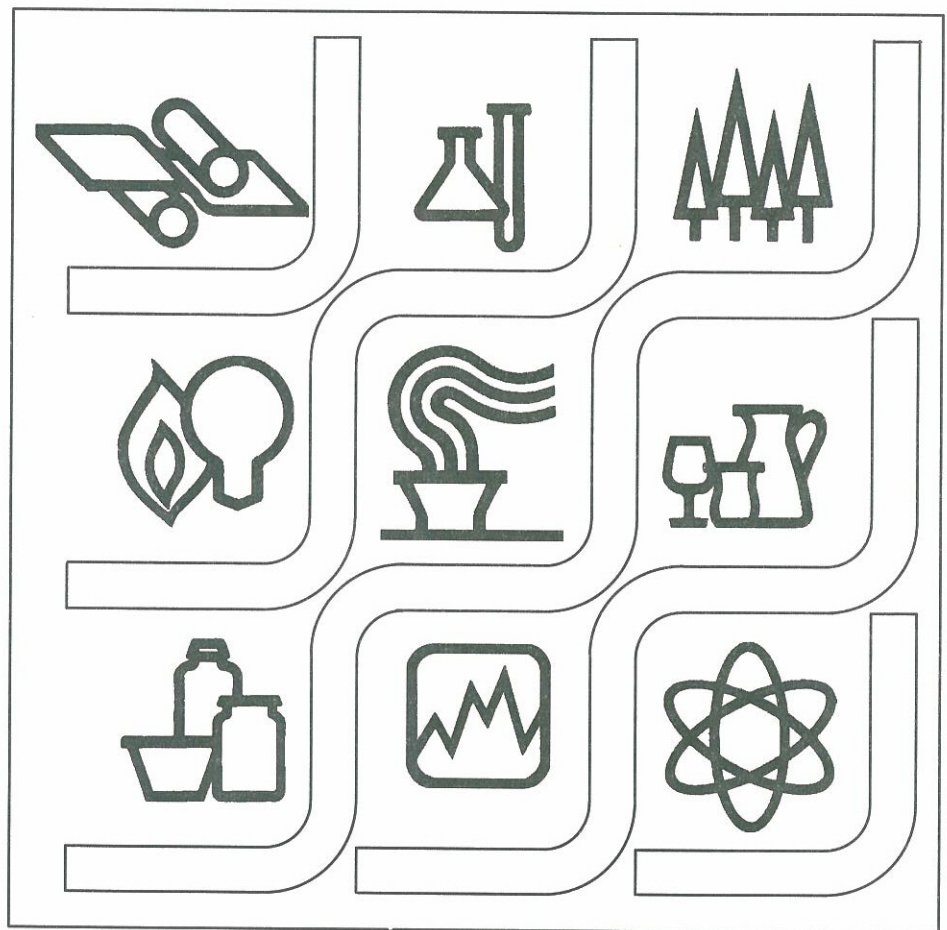
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Issued March 1994



U.S. Department of Commerce
Ronald H. Brown, Secretary

Economics and Statistics Administration
Paul A. London, Acting Under Secretary
for Economic Affairs

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Contents

	Page
INTRODUCTION	
Manufacturing	
Summary of Survey Results	1
Information in the Tables	1
Changes in Data Collection From the 1991 to the 1992 Survey	2
Scope	3
Methodology.....	3
Revisions	3
Limitations of the Data.....	3
Response Limitations	4
Operational Errors.....	5
Nonmanufacturing	
Summary of Survey Results	5
Information in the Tables	5
Changes in Data Collection From the 1991 to the 1992 Survey	5
Scope	6
Methodology.....	6
Limitations of the Data.....	6
Selected Industrial Air Pollution Control Equipment	
Scope	7
Methodology.....	7
Revisions	7
Limitations of the Data.....	7
Questions Concerning This Report	7
Terminology and Abbreviations	7
FIGURES	
1. Pollution Abatement Capital Expenditures by Major Group and Media: 1988 to 1992	8
2. Pollution Abatement Capital Expenditures by State: 1992	9
3. Pollution Abatement Capital Expenditures (PACE) and Operating Costs (PAOC) by Major Group and Media: 1992	10
4. Pollution Abatement Operating Costs by Kinds of Cost for All Industries: 1992	11
STATISTICAL TABLES	
Manufacturing (Media)	
Summary Capital Expenditures and Operating Costs —	
1. By Major Groups: 1988 to 1992	12
2. By States: 1988 to 1992	16
Capital Expenditures—	
3. By Industries for All Media: 1992	22
4a. By Major Groups for the Media Air: 1992	27
4b. By Major Groups for the Media Water: 1992	27
4c. By Major Groups for the Media Solid/Contained Waste: 1992	28
5. By States and Major Groups for All Media: 1992	28
6a. By States for the Media Air: 1992	34
6b. By States for the Media Water: 1992	34
6c. By States for the Media Solid/Contained Waste: 1992	35

STATISTICAL TABLES—Con.

Manufacturing (Media)—Con.

Operating Costs—

7.	And Cost Offsets by Industries for All Media: 1992	36
8a.	By Major Groups for the Media Air: 1992	43
8b.	By Major Groups for the Media Water: 1992	43
8c.	By Major Groups for the Media Solid/Contained Waste: 1992	44
9.	And Cost Offsets by States and Major Groups for All Media: 1992	44
10a.	By States for the Media Air: 1992	53
10b.	By States for the Media Water: 1992	54
10c.	By States for the Media Solid/Contained Waste: 1992	54
11a.	By Industries for Kinds of Cost: 1992	55
11b.	By States and Major Groups for Kinds of Cost: 1992	62

Manufacturing (Nonmedia)

Capital Expenditures—

12a.	By Major Groups for Kinds of Cost: 1992	70
12b.	By States for Kinds of Cost: 1992	71

Operating Costs—

13a.	By Major Groups for Kinds of Cost: 1992	72
13b.	By States for Kinds of Cost: 1992	72

Nonmanufacturing (Media)

Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities—

14.	For All Media: 1988 to 1992	73
15a.	For the Media Air: 1992	73
15b.	For the Media Water: 1992	74
15c.	For the Media Solid/Contained Waste: 1992	74

Nonmanufacturing (Nonmedia)

Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities—

15d.	For Kinds of Cost: 1992	74
16.	Selected Industrial Air Pollution Control Equipment: 1988 to 1992.....	75

APPENDIX

Report Forms and Respondent Instructions

Form MA-200, 1992 Survey of Pollution Abatement Costs and Expenditures	A-2
Form PA-2, 1992 Plant and Equipment Survey Supplement for Pollution Abatement	A-23

Introduction

MANUFACTURING

Tables 1 through 13b present manufacturing pollution abatement costs and expenditures data. These data are collected on the Form MA200, Survey of Pollution Abatement Costs and Expenditures. The survey has been conducted annually by the Bureau of the Census since 1973, except for 1987.

Summary of Survey Results

Pollution abatement capital expenditures by manufacturing establishments with 20 employees or more amounted to \$8,393 million in 1992. Of this total, \$7,867 million was attributable to a particular media: \$4,403 million for air, \$2,510 million for water, and \$954 million for solid/contained waste. Spending for the nonmedia and other was \$526 million.

Approximately 79 percent of the \$8,393 million new capital expenditures for pollution abatement was made by establishments classified in four major industry groups: Chemicals and Allied Products (Major Group 28), Petroleum and Coal Products (Major Group 29), Paper and Allied Products (Major Group 26), and Primary Metal Industries (Major Group 33).

In 1992, three States (Texas, California, and Louisiana) accounted for approximately 38 percent of total new pollution abatement capital expenditures. Texas comprised 18 percent of the total.

Operating costs related to pollution abatement activities totaled \$19,228. Of this amount, \$17,466 was attributable to a particular media: \$5,395 million for air, \$6,577 million for water, and \$5,494 million for solid/contained waste. Spending for the nonmedia and other was \$1,762 million.

The pollution abatement totals for the media for 1992 can be compared with the following in 1991: \$7,390 million in pollution abatement capital expenditures and \$17,309 million in pollution abatement operating costs. Total pollution abatement media capital expenditures increased 7 percent. Air and solid/contained waste capital expenditures increased 19 and 10 percent, respectively. Water capital expenditures decreased 11 percent. Total pollution abatement media operating costs showed an overall increase of \$158 million or 1 percent. Air operating costs increased 9 percent. Water operating costs increased 4 percent. Solid/contained waste operating costs decreased 9 percent.

Information in the Tables

Historic Tables. Tables 1 and 2 show historic and summary data. Table 1 shows the data by major groups (two-digit industries), and table 2 shows the data by State.

Detail Tables. Pollution abatement capital expenditures (PACE) and pollution abatement operating costs (PAOC) are shown for the media air, water, and solid/contained waste and for the nonmedia and other. These data are shown for industries and States.

PACE data for the media air, water, and solid/contained waste are shown in tables 3 through 6c. PACE for the media totals are shown in table 3 at the two-, three-, and four-digit industry level. PACE media totals for States by major groups (two-digit industries) are shown in table 5. Detail for table 3 is shown in tables 4a through 4c at the major group level. Tables 6a through 6c show detail for table 5 at the State level.

Within the PACE detail tables 4a through 4c and 6a through 6c, the media capital expenditures are separated on the basis of abatement technique. The tables distinguish between plant and equipment designed to abate pollutants through end-of-line (EOL) techniques and those designed to reduce or eliminate the generation of pollutants through production process enhancements (PPE). Separate expenditure data also are shown in the detail tables for expenditures to abate hazardous and nonhazardous pollutants.

For air expenditures, tables 4a (industry data) and 6a (State data) show data for the major types of air pollutants (particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons/volatile organic compounds, and lead) as a group. If an air expenditure is not for one of the major types of air pollutants and is not hazardous, it is classified as other. Analysis of these data should take into account that, where expenditures occur for a single device that has the ability to abate more than one pollutant, the classification of the device is guided by the primary purpose for which the device was installed.

Pollution abatement operating costs (PAOC) data for the media air, water, and solid/contained waste are shown in tables 7 through 11b. PAOC for the media totals are shown in table 7 at the two-, three-, and four-digit industry level. PAOC media totals for States by major groups

(two-digit industries) are shown in table 9. Detail for table 7 is shown in tables 8a, 8b, and 8c at the major group level. Tables 10a, 10b, and 10c show detail for table 9 at the State level.

Within the PAOC detail tables, data are shown for expenditures to abate hazardous and nonhazardous pollutants. Within nonhazardous water and nonhazardous solid/contained waste, costs are shown as payments to industry and payments to government.

Tables 11a and 11b tabulate the pollution abatement operating cost data for the media by kind of cost instead of by media. Tables 11a and 11b show data for all media by kind of cost: depreciation; salaries and wages; fuel and electricity; contract work/services; and materials, leasing, and other costs. Table 11a shows two-, three-, and four-digit industry data; and table 11b shows State by major group data.

Pollution abatement nonmedia and other capital expenditures are shown in tables 12a and 12b. Table 12a shows data by major group (two-digit industry level). Table 12b shows data by State. The nonmedia pollution abatement expenditures are for underground storage tanks and site cleanup. Other expenditures include noise abatement, radiation abatement, multimedia, and not elsewhere classified (n.e.c.). Multimedia expenditures are for the abatement of pollutants that cross media.

Pollution abatement nonmedia and other operating costs are shown in tables 13a and 13b. Table 13a shows data by major group (two-digit industry level). Table 13b shows data by State. The nonmedia and other are described for site cleanup, noise abatement, radiation abatement, multimedia, and n.e.c. The 1993 publication will include data on pollution abatement operating costs for underground storage tanks.

Changes in Data Collection From the 1991 to the 1992 Survey

The 1992 MA-200 survey form differs from previous years. These changes may affect the year-to-year comparisons of some of the results.

Some of the general terminology and definitions are changed or new:

Pollution abatement is redefined as "... for the purpose of reducing or eliminating unwanted emissions or wastes that are created by the production process and harmful to the environment or the removal of pollution created by production in prior years. For this survey, only expenditures with the primary purpose of protecting the environment are included." The revised pollution abatement definition replaces a reference to "pollutants" in prior definitions with "unwanted emissions or wastes." It expands the prior definition by adding the

qualification "harmful to the environment" to the qualification "created by the production process." The definition then goes a step further and specifies that expenditures qualify for reporting only if the *primary purpose* is environmental protection. It adds the reporting of expenditures to remove pollution created by production in prior years.

The techniques for pollution abatement are clarified. "Prevention" is changed to "source reduction" and "waste minimization." Definitions for these two new terms are provided on the 1992 MA-200 survey form. "Collection/disposal" and "recycling" are now defined.

Instructions and the type of data collected for capital expenditures for the media are changed:

Capital expenditures now include a measure of "end of line" and "production process enhancements" (formerly changes-in-production process) for solid/contained waste as well as for air and water. New "special instructions" explain how to report production process enhancement expenditures if it is not feasible to report only the portion intended for environmental protection.

"Percent hazardous" is now collected for water pollution abatement capital expenditures as well as for air and solid/contained waste.

The seven types of pollutants data collected for air pollution capital expenditures are combined into three categories:

1. Hazardous
2. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons/volatile organic compounds, and lead
3. Other nonhazardous air pollutants

The instructions for capital expenditures clarify that "construction in progress intended for environmental protection" is reportable.

The instructions also clarify that "recycling equipment if your primary product is recycling" is *not* reportable.

The instructions and items for the pollution abatement operating costs for the media are also revised:

The operating cost categories are changed for 1992. Costs for "fuel and electricity" are separate from "materials and supplies." "Services," now termed "contract work/services," is separate from "equipment leasing and other costs." "Materials and supplies" and "equipment leasing and other costs" are combined into "materials, leasing, and miscellaneous." "Labor" was renamed "salaries and wages" to emphasize that dollars spent on environmental administration are now reported in this category.

"Percent hazardous" is now collected for air and water as well as for solid/contained waste.

Form instructions clarify that the following expenses are reportable for 1992:

- Incremental costs for consumption of environmentally preferable materials and fuels
- Conducting environmental studies for development or expansion
- Compliance and environmental auditing
- Developing pollution abatement operating procedures

Additional instructions explain that "taxes, fines, permits, legal fees, and superfund taxes and contributions" are *not* reportable.

Though not specified in the prior-year instructions, testing and monitoring procedures and equipment were excluded from previous surveys. These costs and expenditures are reportable for 1992.

"Cost recovered" is now termed "cost offsets." These offsets are pollution abatement operating expenses recovered as a result of pollution abatement techniques. The definition is clarified for 1992 to specify that cost offsets must be related to production and for environmental protection.

This report shows pollution abatement expenditures for "nonmedia" and "other" for the first time. "Nonmedia" includes data for underground storage tanks and site cleanup. "Other" expenditures are for noise abatement, radiation abatement, multimedia, and not elsewhere classified (n.e.c). "Multimedia" expenditures are for the abatement of pollutants that cross media.

Scope

The survey covers plants classified in manufacturing industries¹ by the annual survey of manufactures (ASM) with the following specific differences:

1. Establishments in Major Group 23, Apparel and Other Textile Products, are excluded from the pollution abatement survey. These establishments operate primarily in rented quarters where the abatement of pollution is generally arranged by the landlord.
2. The sample does not include establishments with fewer than 20 employees. Early surveys showed that establishments with fewer than 20 employees contributed only about 2 percent to the pollution estimates while constituting more than 10 percent of the sample size. No adjustment is made to account for these establishments.

¹Establishments are classified in industries by industry definitions described in the 1987 edition of the *Standard Industrial Classification (SIC) Manual* published by the Office of Management and Budget. (For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.)

Methodology

The 1992 survey results are based upon a probability sample panel of approximately 17,000 establishments selected as a subsample of the 1989 ASM. The ASM is, in turn, a probability sample selected from the 1987 Census of Manufactures, which is supplemented annually by new establishments identified by the Social Security Administration. A subsample of these new establishments is added annually to the pollution abatement survey sample.

The sample selection of the pollution abatement survey panel is a two-stage operation. The selection of the ASM panel represents the first stage, and the selection of the pollution abatement survey panel from the ASM is the second stage. Probabilities of selection were assigned proportionate to the ASM weighted value of shipments which satisfied predetermined reliability constraints. These reliability constraints were subject to the limitation that the overall sample size not exceed 17,000 establishments. Selection is within four-digit industries. When selected, an establishment's subsampling weight is the inverse of its probability of selection. The product of this weight and its ASM weight represents the final survey weight for the establishment. Subsampling probabilities were adjusted prior to sampling if this composite weight exceeded 500.

Revisions

Statistics for previous years may be revised, primarily as the result of corrected data from respondents.

Limitations of the Data

Sampling Variation. The particular sample selected for this survey is one of a large number of similar probability samples of the same size that could have been selected by chance using the same sample design.

Each of the possible samples would yield somewhat different sets of results. The sampling errors—the differences between the estimate obtained and the results theoretically obtainable from a comparable complete canvass of the same target universe—are unknown. Guides to the potential size of the sampling errors are provided by the estimated relative standard errors of the average. Relative standard errors tend to be somewhat higher for detailed figures than for larger aggregates.

In conjunction with its associated estimates, the relative standard error (computed as the estimated standard error of estimate divided by the value of the estimate) may be used to define confidence interval ranges that could be expected to include comparable complete coverage value for specified percentages of all possible samples. The complete coverage value would be included in the range:

1. From one standard error below to one standard error above the derived estimate for about two-thirds of all samples.

2. From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
3. From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference that the comparable complete coverage results would be within the indicated ranges would be correct in approximately the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates shown would differ from complete coverage results by as much as one, two, or three standard errors, respectively.

For example, if an estimated total is shown as \$20.0 million with an associated relative standard error of 2 percent, the standard error is \$.4 million (2 percent of \$20.0 million). Then there is approximately 67 percent confidence that the interval \$19.6 to \$20.4 million includes the complete coverage total, about 95 percent confidence that the interval \$19.2 to \$20.8 million includes the complete coverage total, and almost certain confidence that the interval \$18.8 to \$21.2 million includes the complete coverage total.

The estimated absolute standard errors of the ratio of year-to-year change are also presented for these same key items. These estimated errors are derived from the variances of the individual yearly estimates, and thus are overestimates since the correlations from year-to-year estimates are not accounted for. Since this year-to-year change is itself a percentage measure, the absolute standard error of this measure is displayed rather than the relative standard error to avoid confusion.

For example, if an estimated total for 1992 is \$22.0 million with an associated relative standard error of 2 percent, and if an estimated total for 1991 is \$20.0 million with an associated relative standard error of 3 percent, the implied change is 10 percent, and the absolute standard error of year-to-year change is 3 percent on the 10 percent.

Stratum Variation. To maintain a minimal sample, the universe is divided into three strata. Stratum 1 contains four-digit industries with historically high pollution abatement expenditures. The sample selected to represent stratum 1 is designed to yield estimates for each four-digit industry in the stratum with a specified level of expected reliability.

Stratum 3 contains four-digit industries with little or no historic pollution expenditures. A small sample represents this stratum. Because of the minimal expenditures, estimates for the four-digit industries are not published at that level. The estimates are included in the two- and three-digit level data.

Stratum 2 contains all four-digit industries not in stratum 1 or 3. The sample selected to represent stratum 2 is designed to yield estimates for all three-digit manufacturing industries with a specified level of expected reliability.

Plants in stratum 2 and especially stratum 3 tend to have high weights resulting from their lower probabilities of selection. Thus, more data variability is seen in industries with historically low pollution abatement. The confidence interval ranges reflect this observation. For example, in table 11, for industry 2013, the pollution abatement operating cost is \$31.2 million with a relative standard error of 23 percent. The standard error is \$7.2 million. There is 67 percent confidence that the interval \$24.0 to \$38.4 million includes the complete coverage total; about 95 percent confidence that the interval \$16.8 to \$45.6 million includes the complete coverage total; and almost certain confidence that the interval \$9.6 to \$52.8 million includes the complete coverage total.

Data variability decreases at higher tabulations of the data. The three-digit industry group 201 consists of the four-digit industry 2013, used in the example above, and industries 2011 and 2015. Continuing with the example, the relative standard error for the four-digit industry 2013 is 23 percent. At the three-digit level, the relative standard error drops to 6 percent.

Response Limitations. There are limitations resulting from the accuracy of survey respondents' reporting and constraints on surveying capabilities. Specific response limitations are:

1. **Production process enhancements (PPE) capital expenditures.** The survey respondent is instructed to report "the pollution abatement portion of the installed cost of enhancement projects intended for environmental protection. Estimate the pollution abatement portion as the extra cost of pollution abatement features in structures and equipment (i.e., your actual spending less what you would have spent without the pollution abatement features built in)." Telephone conversations and interviews with survey respondents indicate that estimating such an incremental cost is difficult in many instances. The net effect of this reporting problem is not known; thus, the data user should consider this limitation when interpreting the PPE data.
2. **Cost offsets.** This item attempts to measure how much of pollution abatement costs are recovered through reuse or sale of recovered materials and energy. Part of the instructions state: "Cost offsets must be related to production and for environmental protection." This qualification makes it imperative that the data preparer be aware of the original motivation of the decision to minimize waste or recover energy in order to adequately complete the form. The Bureau of the Census believes that this information is not always known.
3. **Operating costs for pollution abatement.** The survey respondent is asked to provide the following data separately: depreciation, salaries and wages, fuel and

electricity, contract work/services, and materials, leasing, and other costs. In many cases, interviews with survey respondents have revealed that, with the exception of depreciation, book records are not kept for each category. Thus, these data must be estimated from other information.

4. **Nonmedia costs and expenditures.** Caution should be used in interpreting site cleanup data. Much of media, nonmedia, and other pollution abatement expenditures can be linked to laws and regulations. The expenditures are predictable, and industry estimates are reliable within the standard errors. Many site cleanup expenditures are related to laws, and, therefore, are predictable by industry. However, some site cleanup incidents are the result of accidents. This makes the data more volatile than the media, underground storage tanks, and other pollution abatement expenditures data which are generally relatable to existing and pending legislation. Note that standard errors are given only for key measures, not for specific types of pollution abatement. In addition, there are abandoned sites under site cleanup, but since no plants are located on or specifically associated with the sites, the expenses are not covered by this survey.
5. **Air capital expenditures for major group 29.** The air capital expenditures for Major Group 29, Petroleum and Coal Products, include expenditures to meet the clean fuel requirements of the Clean Air Act. Expenditures for equipment and structures yielding cleaner fuel generally also achieve pollution abatement in the production process. Thus, it is generally not possible to separate clean fuel expenditures from pollution abatement expenditures for the production process.

Operational Errors. In addition to the response limitations, the estimates are subject to various operational errors; e.g., errors of collection, reporting, and transcription. The operational errors would also occur if a complete canvass were conducted under the same conditions used for this survey. Explicit measures of the effects of the operational errors generally are not available. However, it is believed that most of the important operational errors were detected and corrected in the course of the Census Bureau's review of the data for reasonability and consistency.

NONMANUFACTURING

Table 14 and tables 15a through 15d present nonmanufacturing pollution abatement capital expenditures data. The data are collected on the Form PA-2, Plant and Equipment Survey: Supplement for Pollution Abatement. The Bureau of the Census has conducted the survey annually since 1988. Prior to 1988, the Bureau of Economic Analysis conducted the survey.

Summary of Survey Results

In 1992, pollution abatement capital expenditures for the media, nonmedia, and other by nonmanufacturing companies amounted to \$405 million for mining, \$4,367 million for petroleum, and \$3,038 million for electric utilities. Pollution abatement capital expenditures for the media air, water, and solid/contained waste amounted to \$318 million for mining, \$3,874 million for petroleum, and \$2,887 million for electric utilities. This represented a 16 percent increase, a 9 percent increase, and a 49 percent increase, respectively, compared with the prior year. Air capital expenditures showed gains of 11 percent for petroleum and 85 percent for electric utilities and a decrease of 10 percent for mining. Water capital expenditures showed an increase of 21 percent for mining and decreases of 8 percent for petroleum and 1 percent for electric utilities. Solid/contained waste capital expenditures rose 84 percent for mining, 79 percent for petroleum, and 18 percent for electric utilities. Nonmedia and other expenditures were not collected prior to 1992.

Information in the Tables

Historic Table. Table 14 shows pollution abatement capital expenditures for the media air, water, and solid/contained waste totals and for total nonmedia and other by industry. Table 14 also shows new plant and equipment data by industry.

Detail Tables. Detail for table 14 is shown in tables 15a through 15d. Within tables 15a through 15c, the media capital expenditures are separated on the basis of abatement technique and by hazardous and nonhazardous expenditures. For air expenditures (table 15a), data also are shown as a group for the major types of air pollutants: particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons/volatile organic compounds, and lead. If an air expenditure is not for one of the major types of air pollutants and is not hazardous, it is classified as other. In table 15d, nonmedia and other abatement expenditures are shown for underground storage tanks, site cleanup, noise pollution, radiation, multimedia, or n.e.c. types of pollutants.

Changes in Data Collection From the 1991 to the 1992 Survey

The 1992 PA-2 survey form differs from previous years. These changes may affect the year-to-year comparisons of some of the results.

Some of the general terminology and definitions are changed or new:

Pollution abatement is redefined as ". . . for the purpose of reducing or eliminating unwanted emissions or wastes that are created by the production process

and harmful to the environment or the removal of pollution created by production in prior years. For this survey, only expenditures with the primary purpose of protecting the environment are included." The revised pollution abatement definition replaces a reference to "pollutants" in prior definitions with "unwanted emissions or wastes." It expands the prior definition by adding the qualification "harmful to the environment" to the qualification "created by the production process." The definition then goes a step further and specifies that expenditures qualify for reporting only if the *primary purpose* is environmental protection. It adds the reporting of expenditures to remove pollution created by production in prior years.

The techniques for pollution abatement are clarified. "Prevention" is changed to "source reduction" and "waste minimization." Definitions are provided on the form for these. "Collection/disposal" and "recycling" are now defined.

Instructions and the type of data collected for capital expenditures for the media are changed:

Capital expenditures now include a measure of "end of line" and "production process enhancements" (formerly changes-in-production process) for solid/contained waste as well as for air and water. New "special instructions" explain how to report production process enhancement expenditures if it is not feasible to report only the portion intended for environmental protection.

"Percent hazardous" is now collected for air and water pollution abatement capital expenditures as well as for solid/contained waste.

Type-of-pollutants data are now collected for air pollution capital expenditures. Air pollutants are collected by three categories:

1. Hazardous
2. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons/volatile organic compounds, and lead
3. Other nonhazardous air pollutants

The instructions clarify that "research and development" is *not* reportable.

Though not specified in the prior-year instructions, expenditures for testing and monitoring equipment were excluded from previous surveys. These expenditures are reportable for 1992.

This report shows pollution abatement expenditures for "nonmedia" and "other" for the first time. The "nonmedia" include data for underground storage tanks and site

cleanup. "Other" expenditures are for noise abatement, radiation abatement, multimedia, and not elsewhere classified. "Multimedia" expenditures are for the abatement of pollutants that cross media.

Scope

The survey covers companies classified in mining, petroleum, and electric utility industries and includes all operations of the company. A company's capital expenditures are assigned to a single industry in accordance with the standard industrial classification (SIC) of the company's principal product or service. For mining, the survey covers the four SIC major groups: 10, Metal Mining; 12, Coal Mining; 13, Oil and Gas Extraction; and 14, Nonmetallic Minerals, Except Fuels. For petroleum, the survey covers SIC Major Group 29, Petroleum and Coal Products. The survey of pollution abatement expenditures in nonmanufacturing also covers SIC major group 29 used in the manufacturing survey, but the data differ. The manufacturing survey collects data at the plant level and represents only manufacturing operations of companies, while the PA-2 collects data at the company level and may cover the petroleum extraction and distribution network of a company. For electric utilities, the survey covers SIC Industry Groups 491, Electric Services; and 493, Combination Utility Services, with the exception of Rural Electric Administration utilities.

Methodology

The total new plant and equipment expenditures shown in table 14 are estimates from the Plant and Equipment Expenditures Survey (P&E) conducted by the Bureau of the Census. See the U. S. Department of Commerce News, Wednesday, April 10, 1991, CB91-125, PESVY(90)-4 for a description of the P&E's coverage and methodology. The same mail panel is used for the P&E and its pollution abatement supplement, the PA-2. Spending ratios derived from the data collected on the PA-2 are applied to the P&E estimates to yield the total new pollution abatement capital expenditures estimates.

Limitations of the Data

The data are subject to various response and operational errors; e.g., errors of collection, reporting, and transcription. However, it is believed that most of the important operational errors were detected and corrected in the course of the Census Bureau's review of the data for reasonability and consistency.

SELECTED INDUSTRIAL AIR POLLUTION CONTROL EQUIPMENT

Table 16 presents Selected Industrial Air Pollution Control Equipment: 1988 to 1992. These data are collected by

the Bureau of the Census annually on the Current Industrial Reports Form MA35J. This information is provided for reference. For more detail, see the MA35J annual publication.

Scope

This survey covers firms engaged in the manufacture of selected industrial air pollution control equipment.

Methodology

The statistics in table 16 were collected by mail on Form MA35J. The survey panel includes all known manufacturers of the selected products specifically designed for use in air pollution control, approximately 100 companies.

Revisions

Statistics for previous years may be revised, primarily as the result of corrected data from respondents.

Limitations of the Data

The data are subject to various response and operational errors; e.g., errors of collection, reporting, and transcription. However, it is believed that most of the significant errors are identified by the computer edit and corrected in the course of the Census Bureau's review of the data for reasonableness and consistency.

QUESTIONS CONCERNING THIS REPORT

Please direct questions concerning data in this report to the Bureau of the Census, Industry Division, Federal Office Building 4, Room 2105, Washington, DC 20233, or call the Technology and Innovation Branch on 301-763-1755.

TERMINOLOGY AND ABBREVIATIONS

For an explanation of the terms used in this report, see appendixes A and B, which are reproductions of the report forms MA-200 and PA-2, including instructions.

The following abbreviations and symbols appear frequently in the tables:

-	Represents zero
(D)	Withheld to avoid disclosing operations of individual companies
(Z)	Less than half the unit shown
(X)	Not applicable
(NA)	Not available
EOL	End of line
n.e.c.	Not elsewhere classified
PACE	Pollution abatement capital expenditures
PAOC	Pollution abatement operating costs
PPE	Production process enhancements
r	Revised by 5 percent or more from previously published figures

Figure 1.
Pollution Abatement Capital Expenditures by
Major Group and Media: 1988 to 1992

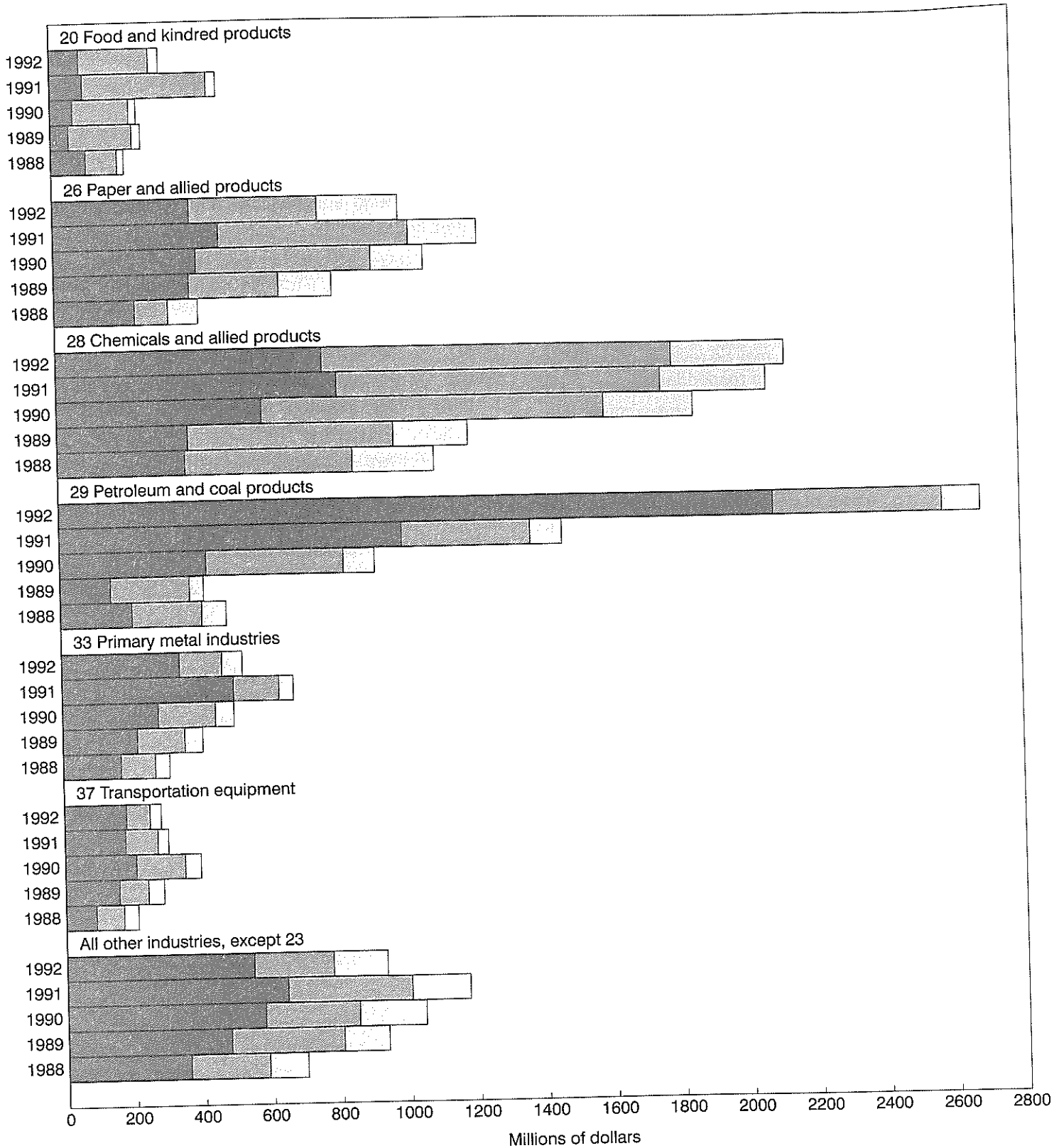
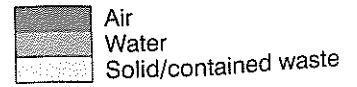


Figure 2.
Pollution Abatement Capital Expenditures by State: 1992

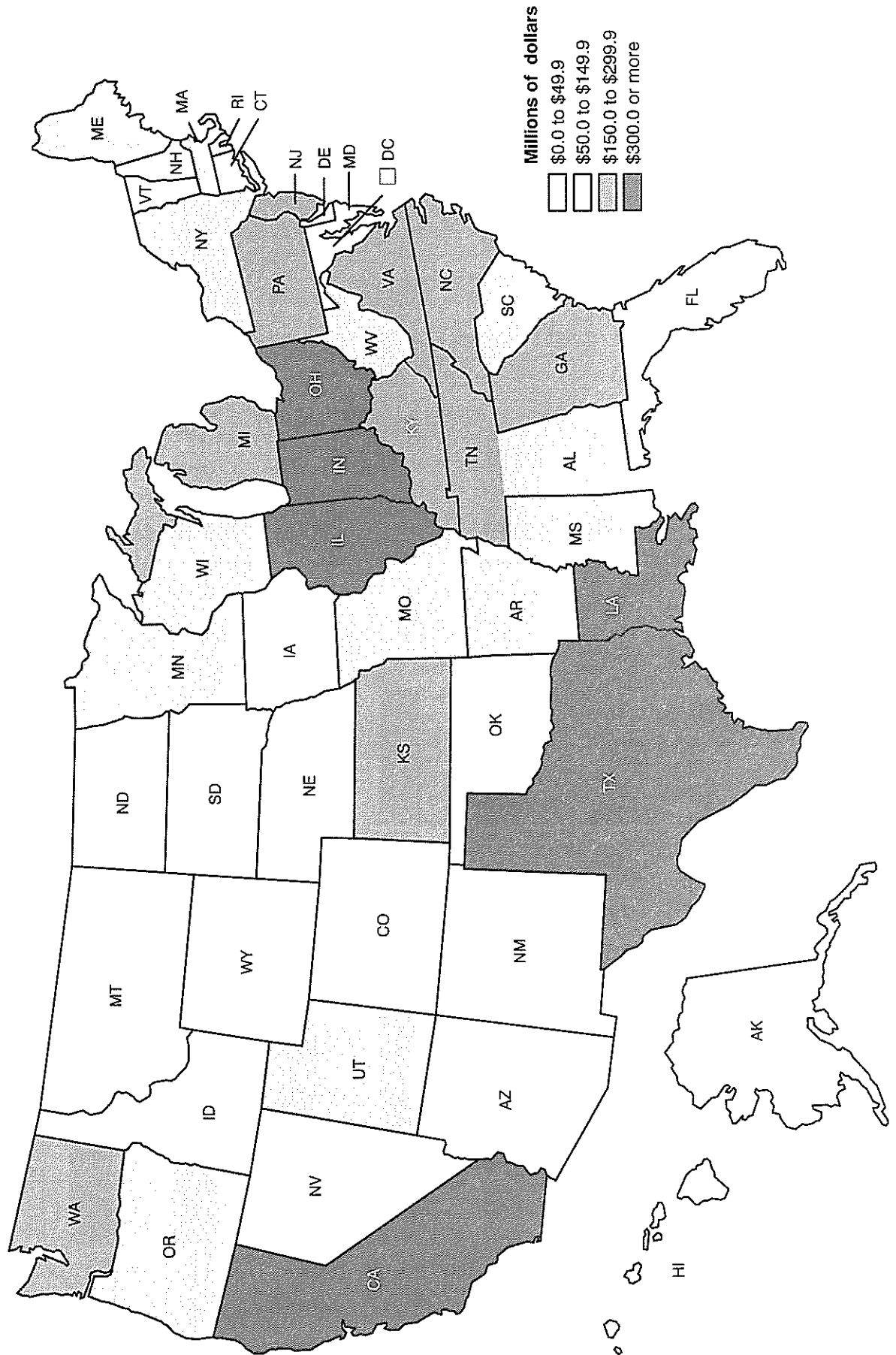


Figure 3. Pollution Abatement Capital Expenditures (PACE) and Operating Costs (PAOC) by Major Group and Media: 1992

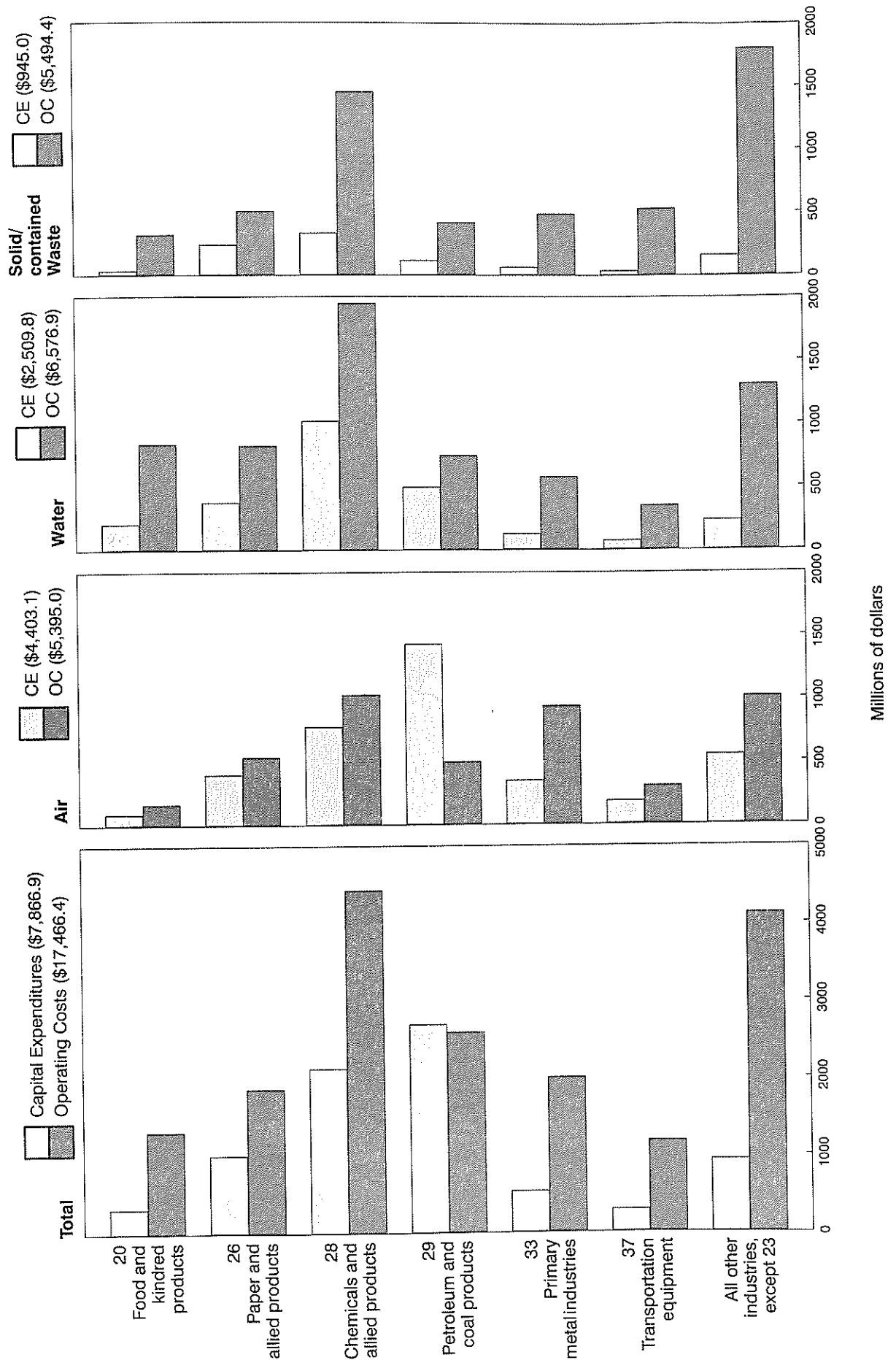


Figure 4.
**Pollution Abatement Operating Costs by Kinds of Cost
for All Industries: 1992**

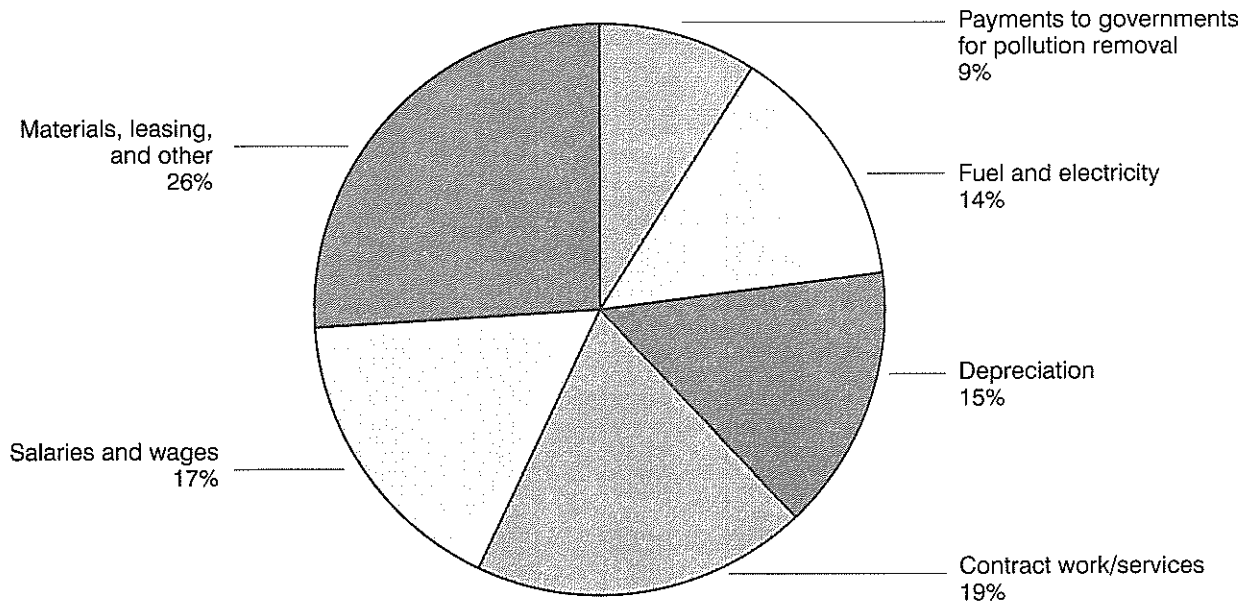


Table 1. Summary Capital Expenditures and Operating Costs by Major Groups: 1988 to 1992

(Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1988, see MA200(88)-1. Statistics in other than the first two columns in

SIC code	Major group	Annual survey of manufactures (ASM) ¹		Pollution abatement capital expenditures (PACE) ²					
		Value of shipments	New capital expenditures	Total PACENM ³	Media				Nonmedia and other
					Total	Air	Water	Solid/contained waste	
	All industries	1992.. (NA)	(NA)	8 393.0	7 866.9	4 403.1	2 509.8	954.0	526.1
		1991.. 2 826 207.3	98 916.4	(NA)	7 390.1	3 706.3	2 814.6	869.2	(NA)
		1990.. 2 873 501.6	101 953.1	(NA)	6 030.8	2 562.0	2 651.4	817.5	(NA)
		1989.. 2 793 014.5	97 186.7	(NA)	4 309.0	1 819.0	1 824.5	665.5	(NA)
		1988.. 2 682 605.9	80 571.7	(NA)	3 423.3	1 524.1	1 289.4	609.7	(NA)
20	Food and kindred products	1992.. (NA)	(NA)	352.1	316.8	85.1	202.6	29.1	35.2
		1991.. 387 600.9	9 361.9	(NA)	481.8	94.6	359.5	27.7	(NA)
		1990.. 384 009.0	8 858.4	(NA)	249.0	64.6	163.3	21.1	(NA)
		1989.. 364 403.7	8 329.3	(NA)	260.6	51.7	183.6	25.2	(NA)
		1988.. 351 514.9	7 492.7	(NA)	211.0	100.2	91.0	19.8	(NA)
21	Tobacco products	1992.. (NA)	(NA)	15.1	14.5	12.9	(D)	(D)	.6
		1991.. 32 031.7	405.3	(NA)	5.9	3.8	.5	1.6	(NA)
		1990.. 29 922.4	277.8	(NA)	5.9	4.0	.8	1.1	(NA)
		1989.. 25 803.1	399.2	(NA)	10.6	5.6	1.2	3.9	(NA)
		1988.. 23 831.8	409.7	(NA)	7.9	7.4	.2	.4	(NA)
22	Textile mill products	1992.. (NA)	(NA)	43.0	34.3	11.8	18.7	3.9	8.7
		1991.. 65 705.9	2 109.4	(NA)	56.8	27.8	21.4	7.6	(NA)
		1990.. 65 951.4	2 316.5	(NA)	45.9	18.7	24.8	2.4	(NA)
		1989.. 67 321.5	2 276.8	(NA)	29.5	9.7	16.5	3.3	(NA)
		1988.. 64 767.9	2 242.7	(NA)	18.9	8.0	8.0	2.9	(NA)
24	Lumber and wood products	1992.. (NA)	(NA)	102.6	94.5	50.7	18.9	24.9	8.1
		1991.. 70 568.9	1 573.2	(NA)	141.2	102.0	13.8	25.4	(NA)
		1990.. 74 287.2	1 874.9	(NA)	105.1	57.8	10.4	36.9	(NA)
		1989.. 74 328.4	1 954.0	(NA)	60.0	45.9	6.6	7.5	(NA)
		1988.. 72 065.4	1 731.9	(NA)	44.5	31.6	7.5	5.4	(NA)
25	Furniture and fixtures	1992.. (NA)	(NA)	25.6	17.9	14.3	.8	2.8	7.7
		1991.. 40 027.3	728.8	(NA)	23.7	16.2	2.8	4.7	(NA)
		1990.. 41 682.0	916.4	(NA)	23.6	19.0	2.3	2.3	(NA)
		1989.. 41 152.3	986.2	(NA)	14.3	10.8	1.3	2.1	(NA)
		1988.. 39 226.1	936.1	(NA)	27.9	20.4	1.0	6.5	(NA)
26	Paper and allied products	1992.. (NA)	(NA)	1 022.6	1 004.6	396.7	373.4	234.5	18.0
		1991.. 128 824.1	9 008.7	(NA)	1 232.6	480.8	552.7	199.0	(NA)
		1990.. 131 444.6	10 809.2	(NA)	1 075.2	414.0	509.6	151.7	(NA)
		1989.. 131 366.3	10 067.1	(NA)	808.2	392.4	261.0	154.9	(NA)
		1988.. 122 556.2	7 210.6	(NA)	417.7	233.4	97.2	87.1	(NA)
27	Printing and publishing	1992.. (NA)	(NA)	47.9	41.8	32.9	4.5	4.4	6.1
		1991.. 156 684.6	5 041.4	(NA)	37.2	26.8	6.2	4.2	(NA)
		1990.. 157 059.5	5 812.3	(NA)	67.8	56.4	4.4	7.0	(NA)
		1989.. 149 911.8	5 761.1	(NA)	35.1	25.6	2.6	6.9	(NA)
		1988.. 143 906.8	5 008.0	(NA)	70.0	56.3	4.7	9.0	(NA)
28	Chemicals and allied products	1992.. (NA)	(NA)	2 315.8	2 120.9	774.5	1 017.3	329.1	194.9
		1991.. 292 325.8	16 008.7	(NA)	2 066.1	816.4	942.3	307.5	(NA)
		1990.. 288 183.7	15 202.1	(NA)	1 852.1	596.2	995.0	260.9	(NA)
		1989.. 278 084.9	13 480.0	(NA)	1 194.8	380.3	598.6	215.9	(NA)
		1988.. 259 699.1	10 858.0	(NA)	1 095.0	370.7	487.8	236.5	(NA)
29	Petroleum and coal products	1992.. (NA)	(NA)	2 702.8	2 685.0	2 079.8	492.6	112.6	17.8
		1991.. 158 076.4	5 895.9	(NA)	1 462.5	996.7	373.3	92.5	(NA)
		1990.. 172 588.6	4 158.1	(NA)	916.8	425.7	400.8	90.3	(NA)
		1989.. 143 702.1	3 331.2	(NA)	417.6	146.5	230.4	40.7	(NA)
		1988.. 131 414.8	2 614.1	(NA)	482.8	208.2	203.7	70.8	(NA)
30	Rubber and miscellaneous plastics products	1992.. (NA)	(NA)	108.2	96.7	71.1	18.2	7.3	11.5
		1991.. 100 667.9	4 214.7	(NA)	81.7	50.8	18.8	12.2	(NA)
		1990.. 101 398.2	4 344.8	(NA)	93.8	68.9	11.0	13.9	(NA)
		1989.. 98 416.8	4 573.0	(NA)	78.2	50.3	16.0	12.0	(NA)
		1988.. 94 200.2	3 558.6	(NA)	40.7	21.7	11.3	7.8	(NA)
31	Leather and leather products	1992.. (NA)	(NA)	9.6	8.5	.9	6.7	.9	1.1
		1991.. 9 142.2	99.5	(NA)	15.0	1.1	9.6	4.3	(NA)
		1990.. 9 887.3	114.4	(NA)	8.3	.7	6.5	1.1	(NA)
		1989.. 9 852.1	121.9	(NA)	3.6	.6	2.9	.1	(NA)
		1988.. 9 663.7	100.0	(NA)	4.0	1.9	1.6	.5	(NA)
32	Stone, clay and glass products	1992.. (NA)	(NA)	154.6	138.8	93.4	20.2	25.3	15.7
		1991.. 59 610.6	2 381.3	(NA)	154.4	119.9	22.2	12.3	(NA)
		1990.. 63 468.0	2 729.2	(NA)	127.5	94.1	19.8	13.6	(NA)
		1989.. 63 555.9	2 874.7	(NA)	97.3	73.2	17.1	7.0	(NA)
		1988.. 63 059.4	2 244.2	(NA)	62.3	42.6	13.6	6.1	(NA)
33	Primary metal industries	1992.. (NA)	(NA)	560.6	525.7	342.6	123.5	59.5	34.9
		1991.. 132 836.6	5 878.7	(NA)	673.4	499.2	131.9	42.2	(NA)
		1990.. 146 052.0	5 788.6	(NA)	499.1	278.6	166.8	59.7	(NA)
		1989.. 152 967.5	5 656.9	(NA)	407.0	216.3	138.7	52.1	(NA)
		1988.. 149 079.8	4 669.9	(NA)	309.8	167.3	100.6	41.8	(NA)
34	Fabricated metal products	1992.. (NA)	(NA)	145.4	103.3	42.4	42.4	18.5	42.1
		1991.. 157 077.3	4 071.6	(NA)	176.9	80.7	66.4	29.8	(NA)
		1990.. 163 052.8	4 744.8	(NA)	171.0	52.9	61.1	57.0	(NA)
		1989.. 162 181.1	4 612.7	(NA)	151.0	50.5	71.3	29.2	(NA)
		1988.. 158 833.8	4 168.7	(NA)	146.8	45.5	75.3	26.1	(NA)
35	Industrial machinery and equipment	1992.. (NA)	(NA)	174.2	150.3	88.8	31.7	29.8	23.9
		1991.. 243 479.4	7 334.3	(NA)	128.4	88.7	27.6	12.1	(NA)
		1990.. 256 344.7	8 293.8	(NA)	107.8	46.7	41.3	19.8	(NA)
		1989.. 253 642.1	8 051.5	(NA)	169.5	99.8	54.8	14.9	(NA)
		1988.. 243 357.6	6 859.0	(NA)	77.2	21.8	33.2	22.3	(NA)
36	Electronic and other electric equipment	1992.. (NA)	(NA)	149.8	126.6	63.0	45.6	17.9	23.2
		1991.. 197 879.5	8 121.2	(NA)	233.7	90.7	122.7	20.3	(NA)
		1990.. 194 847.9	9 237.1	(NA)	177.5	92.8	58.4	26.3	(NA)
		1989.. 192 617.7	8 664.1	(NA)	188.7	66.6	94.3	27.8	(NA)
		1988.. 186 950.8	7 972.4	(NA)	154.2	80.6	54.6	19.0	(NA)

See footnotes at end of table.

this table cover manufacturing establishments with 20 or more employees. See introductory text for a detailed description of survey coverage and for the meaning of abbreviations and symbols]

Pollution abatement operating costs (PAOC) ²						Standard error of change (percent)		Standard error of estimate (percent)		SIC code
Total PAOCNM ⁴	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/contained waste						
19 228.0	17 466.4	5 395.0	6 576.9	5 494.4	1 761.6	5	2	3	2	1992
(NA)	17 308.9	4 955.6	6 345.0	6 008.3	(NA)	4	2	4	2	1991
(NA)	17 070.7	5 010.9	6 416.4	5 643.4	(NA)	4	2	2	2	1990
(NA)	15 625.6	4 694.2	5 853.4	5 078.0	(NA)	6	2	3	2	1989
(NA)	14 008.2	4 466.5	5 275.9	4 265.8	(NA)	(X)	(X)	4	2	1988
1 340.1	1 312.0	162.7	835.7	313.6	28.1	28	5	7	3	1992 20
(NA)	1 254.2	149.6	788.5	316.1	(NA)	53	4	42	5	1991
(NA)	1 108.8	145.9	692.4	270.4	(NA)	12	3	11	4	1990
(NA)	1 056.2	137.4	663.5	255.3	(NA)	27	6	12	4	1989
(NA)	1 160.0	157.8	673.3	328.9	(NA)	(X)	(X)	19	5	1988
(D)	33.5	11.2	10.8	11.5	(D)	94	13	15	6	1992 21
(NA)	48.4	16.4	13.7	18.3	(NA)	11	2	36	18	1991
(NA)	44.8	15.9	13.3	15.6	(NA)	8	4	30	17	1990
(NA)	42.4	14.1	13.5	14.9	(NA)	53	17	40	15	1989
(NA)	37.6	12.4	14.8	10.4	(NA)	(X)	(X)	1	2	1988
264.2	256.2	38.1	152.5	65.7	7.9	20	11	10	4	1992 22
(NA)	213.7	36.1	123.5	54.1	(NA)	47	7	32	9	1991
(NA)	186.3	26.2	114.7	57.5	(NA)	38	5	25	8	1990
(NA)	165.9	25.3	109.4	51.3	(NA)	32	10	18	7	1989
(NA)	177.0	30.5	98.8	47.6	(NA)	(X)	(X)	11	6	1988
268.0	243.0	89.3	49.5	104.2	25.0	29	12	12	5	1992 24
(NA)	298.4	91.1	34.8	172.6	(NA)	64	10	42	13	1991
(NA)	259.3	86.2	37.1	136.0	(NA)	82	8	25	12	1990
(NA)	270.0	88.4	38.6	143.0	(NA)	62	15	44	10	1989
(NA)	236.1	84.0	57.6	94.5	(NA)	(X)	(X)	15	9	1988
126.0	118.5	43.0	14.3	61.2	7.5	20	14	15	6	1992 25
(NA)	136.2	45.9	24.3	66.0	(NA)	37	5	23	16	1991
(NA)	140.8	50.5	23.4	66.9	(NA)	68	8	35	16	1990
(NA)	132.6	50.4	25.8	56.4	(NA)	21	28	26	16	1989
(NA)	118.4	33.8	12.4	72.3	(NA)	(X)	(X)	30	20	1988
1 896.2	1 860.7	535.6	822.7	502.4	35.5	5	6	6	4	1992 26
(NA)	1 635.0	400.8	790.7	443.5	(NA)	4	2	3	4	1991
(NA)	1 606.8	397.5	788.3	421.0	(NA)	4	3	3	4	1990
(NA)	1 449.0	388.1	686.8	374.2	(NA)	6	5	2	4	1989
(NA)	1 343.3	372.4	627.7	343.2	(NA)	(X)	(X)	3	3	1988
260.0	239.0	85.6	36.5	117.0	21.0	18	11	13	4	1992 27
(NA)	228.1	87.7	30.3	110.2	(NA)	13	14	12	11	1991
(NA)	240.7	70.5	30.6	139.6	(NA)	45	10	23	10	1990
(NA)	281.6	67.3	36.2	178.1	(NA)	10	18	7	11	1989
(NA)	206.4	72.0	34.2	100.3	(NA)	(X)	(X)	18	8	1988
4 862.2	4 425.1	1 026.9	1 946.8	1 451.3	437.1	3	4	3	3	1992 28
(NA)	4 046.9	879.6	1 786.9	1 380.5	(NA)	5	3	3	3	1991
(NA)	3 943.4	841.8	1 799.0	1 302.5	(NA)	5	2	2	2	1990
(NA)	3 509.2	794.0	1 613.8	1 101.4	(NA)	9	3	4	2	1989
(NA)	3 074.9	706.4	1 428.5	940.1	(NA)	(X)	(X)	8	2	1988
3 190.8	2 585.4	1 428.9	742.8	413.7	605.4	11	4	6	4	1992 29
(NA)	2 849.0	1 464.7	793.9	590.4	(NA)	3	2	2	3	1991
(NA)	2 704.9	1 472.2	701.9	530.8	(NA)	7	4	3	4	1990
(NA)	2 170.0	1 258.2	578.7	333.0	(NA)	3	2	3	2	1989
(NA)	2 005.5	1 175.8	561.7	268.0	(NA)	(X)	(X)	2	2	1988
403.9	379.6	105.7	73.3	200.5	24.3	39	9	27	5	1992 30
(NA)	440.9	121.0	76.9	243.0	(NA)	22	14	20	9	1991
(NA)	427.6	96.6	113.4	217.6	(NA)	17	4	15	10	1990
(NA)	403.3	85.3	99.6	218.4	(NA)	29	15	12	9	1989
(NA)	277.9	62.5	62.2	153.3	(NA)	(X)	(X)	11	6	1988
53.9	53.5	3.7	30.6	19.2	.4	40	37	43	13	1992 31
(NA)	45.9	2.1	28.2	15.6	(NA)	90	8	55	29	1991
(NA)	48.9	7.0	26.1	15.7	(NA)	70	7	25	25	1990
(NA)	41.6	2.8	23.2	15.6	(NA)	50	57	27	27	1989
(NA)	23.1	2.5	11.3	9.3	(NA)	(X)	(X)	41	18	1988
521.6	491.2	248.5	94.6	148.1	30.3	19	5	15	4	1992 32
(NA)	464.9	220.5	85.1	159.2	(NA)	21	3	16	4	1991
(NA)	497.3	247.6	93.1	156.7	(NA)	14	8	10	5	1990
(NA)	591.7	328.4	85.0	178.3	(NA)	26	15	13	10	1989
(NA)	438.4	247.7	67.7	123.1	(NA)	(X)	(X)	12	6	1988
2 101.1	1 893.4	933.1	575.0	485.3	107.7	5	4	5	3	1992 33
(NA)	2 002.6	911.7	564.0	526.9	(NA)	6	3	5	3	1991
(NA)	2 025.5	943.7	565.4	516.4	(NA)	5	2	4	4	1990
(NA)	1 931.1	883.1	574.3	473.7	(NA)	7	4	5	4	1989
(NA)	1 809.0	965.8	516.1	327.2	(NA)	(X)	(X)	4	3	1988
869.3	761.2	130.4	284.3	346.6	108.0	8	6	7	4	1992 34
(NA)	842.6	133.8	301.1	407.6	(NA)	12	8	11	5	1991
(NA)	813.8	114.2	343.5	356.1	(NA)	12	5	9	8	1990
(NA)	895.7	123.8	389.4	382.4	(NA)	19	15	9	8	1989
(NA)	761.9	135.0	316.8	310.1	(NA)	(X)	(X)	17	10	1988
524.6	463.7	65.4	160.5	237.9	60.9	22	7	7	4	1992 35
(NA)	573.9	70.0	165.1	338.8	(NA)	23	5	18	8	1991
(NA)	557.7	77.9	159.5	320.3	(NA)	25	7	10	7	1990
(NA)	571.9	80.6	170.5	320.8	(NA)	83	14	38	9	1989
(NA)	429.6	68.4	139.4	221.8	(NA)	(X)	(X)	6	7	1988
722.1	657.1	117.9	288.8	250.4	65.0	18	10	6	5	1992 36
(NA)	833.0	22.1	323.6	409.5	(NA)	44	10	33	12	1991
(NA)	787.8	113.1	370.3	304.4	(NA)	18	7	12	14	1990
(NA)	729.1	100.9	308.9	319.3	(NA)	47	14	21	12	1989
(NA)	659.3	92.2	252.5	314.6	(NA)	(X)	(X)	33	5	1988

Table 1. Summary Capital Expenditures and Operating Costs by Major Groups: 1988 to 1992

[Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1988, see MA200(88)-1. Statistics in other than the first two columns in

SIC code	Major group	Annual survey of manufactures (ASM) ¹		Pollution abatement capital expenditures (PACE) ²						
		Value of shipments	New capital expenditures	Total PACENM ³	Media				Nonmedia and other	
					Total	Air	Water	Solid/contained waste		
37	Transportation equipment -----	1992..	(NA)	(NA)	321.0	281.0	179.4	69.2	32.5	40.0
		1991..	364 032.1	10 646.9	(NA)	301.4	175.8	84.7	30.8	(NA)
		1990..	367 926.7	10 578.7	(NA)	395.3	206.6	142.6	46.1	(NA)
		1989..	365 980.7	9 966.7	(NA)	286.8	158.0	84.6	46.2	(NA)
		1988..	354 047.8	7 147.3	(NA)	210.2	87.6	80.4	42.2	(NA)
38	Instruments and related products -----	1992..	(NA)	(NA)	123.2	89.1	52.7	18.8	17.5	34.1
		1991..	127 159.7	4 489.5	(NA)	104.4	27.1	44.3	33.0	(NA)
		1990..	123 776.7	4 292.0	(NA)	91.5	57.7	25.5	8.2	(NA)
		1989..	118 486.1	4 427.3	(NA)	86.1	33.9	37.8	14.4	(NA)
		1988..	114 528.4	3 961.0	(NA)	30.7	15.5	11.8	3.4	(NA)
39	Miscellaneous manufacturing industries -----	1992..	(NA)	(NA)	19.1	16.6	10.2	(D)	(D)	2.5
		1991..	37 131.4	822.1	(NA)	13.1	7.3	3.8	2.0	(NA)
		1990..	37 205.2	805.5	(NA)	17.7	6.6	7.0	4.1	(NA)
		1989..	35 841.8	824.5	(NA)	10.0	3.3	5.2	1.5	(NA)
		1988..	34 869.4	714.7	(NA)	11.3	3.6	5.7	2.0	(NA)

¹Includes Major Group 23, Apparel and Other Textile Products.²Excludes Major Group 23, Apparel and Other Textile Products.³PACENM denotes pollution abatement capital expenditures, including the nonmedia and other.⁴PAOCNM denotes pollution abatement operating costs, including the nonmedia and other.

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this table cover manufacturing establishments with 20 or more employees. See introductory text for a detailed description of survey coverage and for the meaning of abbreviations and symbols]

Pollution abatement operating costs (PAOC) ²						Standard error of change (percent)		Standard error of estimate (percent)		SIC code
Total PAOCNM ⁴	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/ contained waste						
1 298.5	1 171.7	298.5	347.0	526.2	126.8	10	5	10		
(NA)	1 118.3	254.7	319.6	544.0	(NA)	1	1	6	4	1992 37
(NA)	1 232.0	247.3	373.1	611.6	(NA)	12	4	10	3	1991
(NA)	1 000.3	212.2	318.1	470.1	(NA)	6	4	5	4	1990
(NA)	974.4	215.7	299.2	459.5	(NA)	(X)	(X)	2	3	1989
									3	1988
393.3	331.9	48.0	89.4	194.5	61.5	18	8	11		
(NA)	280.0	33.3	77.9	168.7	(NA)	1	1	20	4	1992 38
(NA)	247.7	37.4	68.5	141.7	(NA)	12	4	10	6	1991
(NA)	239.9	36.2	70.9	132.8	(NA)	33	9	12	7	1990
(NA)	197.7	21.7	79.9	96.1	(NA)	(X)	(X)	3	7	1989
									5	1988
(D)	89.7	22.7	21.7	45.3	(D)	23	11	7		
(NA)	74.9	14.5	17.0	43.4	(NA)	1	1	17	5	1992 39
(NA)	114.7	19.2	32.7	62.7	(NA)	33	24	19	8	1991
(NA)	124.0	17.7	47.3	58.9	(NA)	19	72	16	59	1990
(NA)	76.7	10.1	20.9	45.7	(NA)	(X)	(X)	15	44	1989
									9	1988

Table 2. Summary Capital Expenditures and Operating Costs by States: 1988 to 1992

[Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1988, see MA200(88)-1. Statistics in this table cover manufacturing

State and year	Pollution abatement capital expenditures (PACE) ¹					
	Total PACENM ²	Media				Nonmedia and other
		Total	Air	Water	Solid/contained waste	
United States	1992.. 8 393.0	7 866.9	4 403.1	2 509.8	954.0	526.1
	1991.. (NA)	7 390.1	3 706.3	2 814.6	869.2	(NA)
	1990.. (NA)	6 030.8	2 562.0	2 651.4	817.5	(NA)
	1989.. (NA)	4 309.0	1 819.0	1 824.5	665.5	(NA)
	1988.. (NA)	3 423.3	1 524.1	1 289.4	609.7	(NA)
Alabama	1992.. 126.8	119.4	54.3	48.2	16.9	7.4
	1991.. (NA)	316.6	143.0	133.7	39.9	(NA)
	1990.. (NA)	195.7	70.6	99.1	26.0	(NA)
	1989.. (NA)	104.6	39.8	49.5	15.3	(NA)
	1988.. (NA)	58.9	18.0	25.4	15.5	(NA)
Alaska	1992.. 15.3	15.3	2.1	11.4	1.8	-
	1991.. (NA)	9.3	6.0	(D)	(D)	(NA)
	1990.. (NA)	11.1	8.5	(D)	(D)	(NA)
	1989.. (NA)	(D)	6.3	(D)	2	(NA)
	1988.. (NA)	(D)	(D)	(D)	(D)	(NA)
Arizona	1992.. 32.0	30.8	13.6	16.2	1.1	1.2
	1991.. (NA)	24.4	15.6	5.3	3.4	(NA)
	1990.. (NA)	18.3	9.7	5.5	3.1	(NA)
	1989.. (NA)	48.3	30.9	7.5	10.0	(NA)
	1988.. (NA)	(D)	(D)	1.6	3.6	(NA)
Arkansas	1992.. 81.9	75.6	28.3	41.2	6.0	6.4
	1991.. (NA)	57.1	17.6	28.4	11.2	(NA)
	1990.. (NA)	80.0	34.4	37.8	7.7	(NA)
	1989.. (NA)	74.5	54.3	16.8	3.3	(NA)
	1988.. (NA)	90.0	62.8	19.9	7.2	(NA)
California	1992.. 589.8	547.9	418.7	88.5	40.7	41.9
	1991.. (NA)	696.6	443.7	226.4	26.5	(NA)
	1990.. (NA)	503.0	286.6	176.1	40.3	(NA)
	1989.. (NA)	367.9	141.0	186.9	40.0	(NA)
	1988.. (NA)	408.4	243.2	134.9	30.3	(NA)
Colorado	1992.. 15.1	13.7	6.5	5.9	1.2	1.4
	1991.. (NA)	30.0	7.9	11.0	11.1	(NA)
	1990.. (NA)	26.0	9.4	13.0	3.6	(NA)
	1989.. (NA)	49.3	8.6	38.5	2.2	(NA)
	1988.. (NA)	10.9	2.3	(D)	(D)	(NA)
Connecticut	1992.. 34.9	29.3	7.9	13.2	8.2	5.5
	1991.. (NA)	70.8	14.4	51.2	5.1	(NA)
	1990.. (NA)	41.3	10.9	26.6	3.8	(NA)
	1989.. (NA)	51.9	10.0	30.8	11.1	(NA)
	1988.. (NA)	25.4	4.6	12.7	8.1	(NA)
Delaware	1992.. 61.1	59.8	43.9	(D)	(D)	1.3
	1991.. (NA)	60.0	33.0	(D)	(D)	(NA)
	1990.. (NA)	25.7	23.0	2.1	.5	(NA)
	1989.. (NA)	22.5	16.0	4.1	2.4	(NA)
	1988.. (NA)	12.5	(D)	7.0	(D)	(NA)
District of Columbia	1992.. (Z)	(Z)	(Z)	(Z)	-	-
	1991.. (NA)	(D)	-	(D)	-	(NA)
	1990.. (NA)	(D)	(D)	(D)	(D)	(NA)
	1989.. (NA)	(D)	(D)	(D)	(D)	(NA)
	1988.. (NA)	(D)	(D)	(D)	(D)	(NA)
Florida	1992.. 110.8	105.9	24.5	74.0	7.4	4.9
	1991.. (NA)	90.1	18.6	63.1	8.4	(NA)
	1990.. (NA)	130.5	64.3	59.3	6.9	(NA)
	1989.. (NA)	82.9	53.0	19.8	10.2	(NA)
	1988.. (NA)	64.0	33.9	17.2	12.9	(NA)
Georgia	1992.. 186.0	173.3	146.9	15.8	10.6	12.7
	1991.. (NA)	271.0	170.0	86.6	14.4	(NA)
	1990.. (NA)	238.3	124.8	98.8	14.7	(NA)
	1989.. (NA)	145.4	78.1	51.5	15.7	(NA)
	1988.. (NA)	80.7	24.1	36.2	20.5	(NA)
Hawaii	1992.. 2.8	2.8	.5	2.3	-	(Z)
	1991.. (NA)	4.0	1.8	(D)	(D)	(NA)
	1990.. (NA)	23.2	12.6	(D)	(D)	(NA)
	1989.. (NA)	(D)	(D)	(D)	(D)	(NA)
	1988.. (NA)	7.9	3.5	(D)	(D)	(NA)
Idaho	1992.. 25.8	25.0	14.3	10.3	.4	.8
	1991.. (NA)	36.5	26.2	9.4	.9	(NA)
	1990.. (NA)	32.2	4.1	26.1	2.1	(NA)
	1989.. (NA)	17.3	5.3	6.5	5.5	(NA)
	1988.. (NA)	11.2	(D)	(D)	2.7	(NA)
Illinois	1992.. 366.8	350.5	250.1	81.3	19.1	16.2
	1991.. (NA)	207.0	129.8	63.0	14.2	(NA)
	1990.. (NA)	273.2	81.0	158.3	33.8	(NA)
	1989.. (NA)	179.3	78.4	78.0	22.9	(NA)
	1988.. (NA)	146.7	93.0	37.0	16.8	(NA)
Indiana	1992.. 383.4	330.9	220.6	94.3	16.0	32.5
	1991.. (NA)	364.4	204.5	139.4	20.5	(NA)
	1990.. (NA)	246.7	94.2	131.7	20.7	(NA)
	1989.. (NA)	175.7	72.3	86.1	17.2	(NA)
	1988.. (NA)	116.7	33.4	57.3	26.0	(NA)
Iowa	1992.. 52.2	46.9	27.0	14.2	5.7	5.3
	1991.. (NA)	38.3	22.1	12.3	4.9	(NA)
	1990.. (NA)	30.5	17.6	9.7	3.2	(NA)
	1989.. (NA)	35.6	11.5	19.6	4.5	(NA)
	1988.. (NA)	27.0	18.2	6.4	2.4	(NA)
Kansas	1992.. 193.9	186.1	153.7	23.5	8.9	7.8
	1991.. (NA)	85.0	68.9	9.7	6.4	(NA)
	1990.. (NA)	35.6	12.8	20.1	2.7	(NA)
	1989.. (NA)	24.7	7.9	15.0	1.8	(NA)
	1988.. (NA)	14.1	2.8	10.3	1.0	(NA)

See footnotes at end of table.

establishments with 20 or more employees. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

Total PAOCNM ²	Pollution abatement operating costs (PAOC) ¹					Standard error of change (percent)		Standard error of estimate (percent)		State and year
	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/contained waste						
19 228.0	17 466.4	5 395.0	6 576.9	5 494.4	1 761.6	5	2	3	2	1992 U.S.
(NA)	17 308.9	4 955.6	6 345.0	6 008.3	(NA)	4	2	4	2	1991
(NA)	17 070.7	5 010.9	6 416.4	5 643.4	(NA)	4	2	2	2	1990
(NA)	15 625.6	4 694.2	5 853.4	5 078.0	(NA)	6	2	3	2	1989
(NA)	14 008.2	4 466.5	5 275.9	4 265.8	(NA)	(X)	(X)	4	2	1988
401.6	380.0	136.2	146.7	97.1	21.6	4	11	7	6	1992 AL
(NA)	388.5	96.9	156.4	135.3	(NA)	12	9	8	11	1991
(NA)	338.8	93.5	138.8	106.5	(NA)	20	8	6	6	1990
(NA)	294.0	93.6	125.7	74.7	(NA)	21	10	12	8	1989
(NA)	252.3	89.1	106.1	57.2	(NA)	(X)	(X)	5	4	1988
31.5	31.4	8.2	14.7	8.5	.1	112	16	67	21	1992 AK
(NA)	45.6	12.8	21.8	11.0	(NA)	9	4	11	9	1991
(NA)	32.7	9.8	15.9	7.0	(NA)	2	15	1	8	1990
(NA)	21.6	6.9	9.6	5.1	(NA)	(X)	19	(X)	16	1989
(NA)	18.6	8.4	7.0	3.3	(NA)	(X)	(X)	(X)	5	1988
143.4	129.4	66.4	36.0	27.1	14.0	21	17	14	10	1992 AZ
(NA)	104.8	61.5	22.0	21.2	(NA)	15	6	11	9	1991
(NA)	115.9	68.1	25.1	22.7	(NA)	8	7	9	8	1990
(NA)	101.9	59.1	22.9	19.9	(NA)	(X)	7	(X)	9	1989
(NA)	135.3	100.4	17.1	17.9	(NA)	(X)	(X)	(X)	5	1988
224.6	208.1	56.2	92.3	59.5	16.5	23	14	16	11	1992 AR
(NA)	174.2	46.7	79.0	48.5	(NA)	10	5	8	6	1991
(NA)	161.0	46.2	75.9	39.0	(NA)	14	7	13	6	1990
(NA)	179.8	48.3	88.3	43.3	(NA)	6	12	5	9	1989
(NA)	140.0	41.4	64.0	34.6	(NA)	(X)	(X)	5	5	1988
1 637.6	1 492.6	490.3	584.1	418.2	145.0	11	6	8	4	1992 CA
(NA)	1 717.0	616.4	549.7	550.9	(NA)	18	7	12	5	1991
(NA)	1 818.5	673.7	558.2	586.6	(NA)	10	6	6	6	1990
(NA)	1 526.6	543.3	463.3	520.0	(NA)	13	8	6	4	1989
(NA)	1 363.0	471.9	401.8	489.3	(NA)	(X)	(X)	13	3	1988
95.5	83.5	11.3	44.5	27.7	12.0	7	10	13	12	1992 CO
(NA)	251.7	28.5	107.3	115.9	(NA)	28	39	7	28	1991
(NA)	267.3	22.1	188.2	57.0	(NA)	34	19	24	48	1990
(NA)	191.5	20.3	109.3	61.9	(NA)	279	108	62	39	1989
(NA)	69.4	12.4	25.4	31.5	(NA)	(X)	(X)	4	7	1988
197.6	168.5	23.6	52.8	92.1	29.1	6	11	9	5	1992 CT
(NA)	213.9	22.8	82.9	108.2	(NA)	17	9	10	14	1991
(NA)	249.5	27.8	118.3	103.4	(NA)	11	14	8	21	1990
(NA)	219.2	29.4	81.6	108.2	(NA)	26	19	13	12	1989
(NA)	160.0	27.6	58.8	73.4	(NA)	(X)	(X)	5	8	1988
153.3	145.5	67.9	54.1	23.5	7.9	17	16	16	15	1992 DE
(NA)	155.2	64.3	65.1	25.8	(NA)	23	2	5	10	1991
(NA)	145.2	58.4	60.9	25.9	(NA)	11	2	11	9	1990
(NA)	180.5	88.1	70.3	22.2	(NA)	28	8	6	7	1989
(NA)	169.8	84.2	57.4	28.1	(NA)	(X)	(X)	15	5	1988
13.3	1.4	.3	.4	.7	11.9	1	86	46	40	1992 DC
(NA)	1.1	(Z)	.4	.7	(NA)	(X)	60	(X)	57	1991
(NA)	1.4	(Z)	.6	.8	(NA)	(X)	17	(X)	59	1990
(NA)	1.6	.2	(D)	(D)	(NA)	(X)	48	(X)	50	1989
(NA)	1.9	.2	.7	.1	(NA)	(X)	(X)	44	23	1988
336.7	304.3	81.6	125.4	97.3	32.4	6	8	5	5	1992 FL
(NA)	291.5	88.0	114.5	89.0	(NA)	4	6	3	6	1991
(NA)	322.4	97.5	128.8	96.1	(NA)	9	6	5	8	1990
(NA)	347.4	100.6	133.0	113.9	(NA)	12	12	5	9	1989
(NA)	314.1	123.8	101.6	88.6	(NA)	(X)	(X)	9	7	1988
396.8	375.7	118.4	152.3	105.0	21.1	17	8	16	6	1992 GA
(NA)	422.3	120.1	191.3	110.8	(NA)	26	10	21	7	1991
(NA)	407.8	104.4	187.5	116.0	(NA)	10	10	8	7	1990
(NA)	433.6	144.0	163.3	125.3	(NA)	47	17	8	11	1989
(NA)	299.4	87.4	131.6	80.4	(NA)	(X)	(X)	25	5	1988
16.2	12.8	3.3	4.6	4.9	3.4	43	31	53	33	1992 HI
(NA)	15.8	(D)	9.0	(D)	(NA)	3	8	33	18	1991
(NA)	12.0	3.5	(D)	(D)	(NA)	62	16	23	13	1990
(NA)	7.0	3.2	2.5	1.3	(NA)	(X)	9	(X)	15	1989
(NA)	16.2	4.8	5.9	5.5	(NA)	(X)	(X)	4	13	1988
68.0	60.4	21.3	23.9	15.2	7.7	19	24	23	13	1992 ID
(NA)	37.7	11.1	15.6	11.1	(NA)	15	6	15	8	1991
(NA)	44.5	14.1	19.4	10.9	(NA)	25	3	4	10	1990
(NA)	41.6	13.7	18.5	9.4	(NA)	23	11	15	9	1989
(NA)	43.8	14.7	18.6	10.5	(NA)	(X)	(X)	5	8	1988
932.0	896.1	322.5	297.0	276.7	35.9	10	7	3	6	1992 IL
(NA)	783.4	261.9	263.7	257.8	(NA)	4	4	6	4	1991
(NA)	842.4	287.8	276.7	277.9	(NA)	22	5	7	5	1990
(NA)	753.5	273.9	252.4	227.2	(NA)	37	6	16	5	1989
(NA)	695.2	227.8	242.2	225.2	(NA)	(X)	(X)	27	4	1988
752.4	706.6	255.2	253.2	198.2	45.7	6	5	6	3	1992 IN
(NA)	667.5	197.2	240.1	230.2	(NA)	11	2	4	4	1991
(NA)	628.5	183.2	257.5	187.9	(NA)	14	4	10	3	1990
(NA)	671.3	207.2	276.1	188.1	(NA)	14	7	5	5	1989
(NA)	582.9	190.3	239.9	152.7	(NA)	(X)	(X)	8	4	1988
178.9	166.9	53.3	60.0	53.6	12.0	15	12	9	7	1992 IA
(NA)	149.1	46.4	56.7	46.0	(NA)	13	3	10	9	1991
(NA)	140.6	44.3	51.0	45.3	(NA)	8	11	8	9	1990
(NA)	147.6	43.1	53.3	51.2	(NA)	17	14	7	10	1989
(NA)	126.1	38.8	55.2	32.0	(NA)	(X)	(X)	11	6	1988
113.1	107.3	29.0	37.0	41.3	5.7	78	13	35	11	1992 KS
(NA)	139.7	47.8	42.2	49.7	(NA)	31	11	9	13	1991
(NA)	142.4	41.0	49.5	52.0	(NA)	15	6	10	8	1990
(NA)	116.8	33.1	48.1	35.6	(NA)	18	19	4	11	1989
(NA)	86.3	18.7	42.2	25.5	(NA)	(X)	(X)	10	9	1988

Table 2. Summary Capital Expenditures and Operating Costs by States: 1988 to 1992—Con.

[Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1988, see MA200(88)-1. Statistics in this table cover manufacturing

State and year	Pollution abatement capital expenditures (PACE) ¹					
	Total PACENM ²	Media				Nonmedia and other
		Total	Air	Water	Solid/contained waste	
Kentucky ----- 1992..	197.5	180.9	132.4	25.7	22.8	16.6
----- 1991..	(NA)	152.0	86.4	50.6	15.1	(NA)
----- 1990..	(NA)	135.5	60.3	68.4	6.9	(NA)
----- 1989..	(NA)	53.5	30.7	17.5	5.3	(NA)
----- 1988..	(NA)	71.1	31.9	29.1	10.2	(NA)
Louisiana ----- 1992..	1 091.0	1 057.2	477.6	430.8	148.8	33.8
----- 1991..	(NA)	564.2	315.6	184.0	64.5	(NA)
----- 1990..	(NA)	301.9	85.4	144.9	71.6	(NA)
----- 1989..	(NA)	191.3	61.0	100.1	30.2	(NA)
----- 1988..	(NA)	144.5	44.9	58.8	40.8	(NA)
Maine ----- 1992..	67.2	62.2	23.8	26.8	11.6	5.0
----- 1991..	(NA)	95.4	21.0	(D)	(D)	(NA)
----- 1990..	(NA)	104.1	25.6	25.1	53.4	(NA)
----- 1989..	(NA)	82.4	26.5	21.0	34.9	(NA)
----- 1988..	(NA)	46.8	22.4	9.8	14.6	(NA)
Maryland ----- 1992..	45.2	38.1	16.4	16.2	5.5	7.1
----- 1991..	(NA)	94.6	67.6	21.9	5.2	(NA)
----- 1990..	(NA)	133.1	80.6	45.2	7.3	(NA)
----- 1989..	(NA)	72.9	26.6	41.0	5.3	(NA)
----- 1988..	(NA)	36.9	13.5	11.7	5.7	(NA)
Massachusetts ----- 1992..	65.0	59.5	18.4	35.6	5.5	5.5
----- 1991..	(NA)	55.6	17.5	26.3	11.8	(NA)
----- 1990..	(NA)	69.9	14.5	44.2	11.1	(NA)
----- 1989..	(NA)	44.2	14.8	25.2	4.2	(NA)
----- 1988..	(NA)	37.2	11.0	22.2	4.0	(NA)
Michigan ----- 1992..	183.9	159.3	99.4	37.9	22.0	24.6
----- 1991..	(NA)	172.9	90.0	49.7	33.1	(NA)
----- 1990..	(NA)	178.9	97.2	52.7	29.1	(NA)
----- 1989..	(NA)	289.0	180.6	80.6	27.9	(NA)
----- 1988..	(NA)	154.4	58.7	67.4	28.4	(NA)
Minnesota ----- 1992..	137.2	133.1	91.8	29.7	11.6	4.1
----- 1991..	(NA)	64.4	43.9	13.8	6.7	(NA)
----- 1990..	(NA)	92.6	54.6	30.4	7.6	(NA)
----- 1989..	(NA)	46.6	11.3	23.0	12.3	(NA)
----- 1988..	(NA)	47.4	25.4	16.1	5.8	(NA)
Mississippi ----- 1992..	115.8	112.8	88.3	15.5	8.8	3.0
----- 1991..	(NA)	68.2	43.2	19.0	6.0	(NA)
----- 1990..	(NA)	68.7	27.2	35.1	6.5	(NA)
----- 1989..	(NA)	67.1	32.0	29.8	5.2	(NA)
----- 1988..	(NA)	23.0	10.5	8.4	4.1	(NA)
Missouri ----- 1992..	69.8	65.2	28.5	25.5	11.2	4.5
----- 1991..	(NA)	61.4	39.4	16.6	5.3	(NA)
----- 1990..	(NA)	72.4	22.3	43.8	6.3	(NA)
----- 1989..	(NA)	38.0	13.4	16.3	8.3	(NA)
----- 1988..	(NA)	56.8	29.7	21.5	5.6	(NA)
Montana ----- 1992..	7.6	7.1	2.2	(D)	(D)	.5
----- 1991..	(NA)	18.3	14.7	(D)	(D)	(NA)
----- 1990..	(NA)	9.5	6.0	(D)	(D)	(NA)
----- 1989..	(NA)	4.2	2.4	1.6	.2	(NA)
----- 1988..	(NA)	(D)	(D)	(D)	(D)	(NA)
Nebraska ----- 1992..	12.4	8.0	3.7	2.6	1.7	4.4
----- 1991..	(NA)	5.6	2.7	2.2	.7	(NA)
----- 1990..	(NA)	5.8	3.4	1.9	.4	(NA)
----- 1989..	(NA)	4.3	1.2	2.6	.5	(NA)
----- 1988..	(NA)	5.6	2.8	(D)	(D)	(NA)
Nevada ----- 1992..	5.4	5.3	2.1	2.5	.8	.1
----- 1991..	(NA)	2.2	1.0	1.2	(Z)	(NA)
----- 1990..	(NA)	4.1	(D)	(D)	3.1	(NA)
----- 1989..	(NA)	1.3	(D)	.9	(D)	(NA)
----- 1988..	(NA)	138.0	134.4	3.0	.5	(NA)
New Hampshire ----- 1992..	17.6	(D)	(D)	2.2	(D)	(D)
----- 1991..	(NA)	8.5	2.5	3.6	2.4	(NA)
----- 1990..	(NA)	9.7	3.8	2.9	3.0	(NA)
----- 1989..	(NA)	7.7	2.2	1.4	4.1	(NA)
----- 1988..	(NA)	10.8	(D)	(D)	2.3	(NA)
New Jersey ----- 1992..	192.7	154.0	65.6	70.3	18.0	38.8
----- 1991..	(NA)	245.5	100.3	124.0	21.3	(NA)
----- 1990..	(NA)	152.3	60.3	74.3	17.6	(NA)
----- 1989..	(NA)	121.4	44.8	56.6	20.0	(NA)
----- 1988..	(NA)	84.6	24.2	45.9	14.5	(NA)
New Mexico ----- 1992..	44.3	44.3	36.2	(D)	(D)	-
----- 1991..	(NA)	25.0	9.5	(D)	(D)	(NA)
----- 1990..	(NA)	67.3	34.0	32.7	.7	(NA)
----- 1989..	(NA)	9.9	9.3	.4	.1	(NA)
----- 1988..	(NA)	(D)	(D)	(D)	(D)	(NA)
New York ----- 1992..	184.5	128.8	72.9	29.0	26.8	55.7
----- 1991..	(NA)	200.5	88.8	55.4	56.3	(NA)
----- 1990..	(NA)	249.3	121.8	78.9	48.7	(NA)
----- 1989..	(NA)	209.5	96.7	74.0	38.8	(NA)
----- 1988..	(NA)	102.1	45.8	33.0	23.2	(NA)
North Carolina ----- 1992..	281.0	259.8	97.3	132.2	30.3	21.2
----- 1991..	(NA)	276.3	69.8	181.0	26.5	(NA)
----- 1990..	(NA)	212.3	81.3	110.6	20.4	(NA)
----- 1989..	(NA)	114.7	44.4	46.3	24.0	(NA)
----- 1988..	(NA)	89.3	51.7	30.1	7.6	(NA)
North Dakota ----- 1992..	3.7	3.7	1.1	2.2	.3	-
----- 1991..	(NA)	(D)	(D)	(D)	-	(NA)
----- 1990..	(NA)	(D)	(D)	(D)	(D)	(NA)
----- 1989..	(NA)	3.3	1.8	(D)	(D)	(NA)
----- 1988..	(NA)	4.9	(D)	1.4	(D)	(NA)

See footnotes at end of table.

establishments with 20 or more employees. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

Pollution abatement operating costs (PAOC) ¹						Standard error of change (percent)		Standard error of estimate (percent)		State and year
Total PAOCNM ²	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/contained waste						
339.1	324.8	138.4	102.2	84.1	14.3	11	7	6	5	1992 KY
(NA)	331.3	121.4	107.8	102.1	(NA)	17	8	8	6	1991
(NA)	327.7	131.2	103.8	92.7	(NA)	30	4	13	5	1990
(NA)	295.5	118.1	94.2	82.2	(NA)	10	8	7	5	1989
(NA)	237.5	101.9	80.4	55.2	(NA)	(X)	(X)	12	5	1988
969.2	920.0	317.3	347.6	255.1	49.3	5	5	2	5	1992 LA
(NA)	892.4	282.3	366.7	243.4	(NA)	7	5	2	3	1991
(NA)	827.0	261.3	328.9	236.7	(NA)	8	2	4	3	1990
(NA)	682.9	240.8	278.5	163.7	(NA)	11	5	4	3	1989
(NA)	643.8	213.5	257.4	172.9	(NA)	(X)	(X)	8	4	1988
129.7	123.5	21.2	60.7	41.5	6.2	6	12	8	10	1992 ME
(NA)	127.3	18.8	59.6	48.9	(NA)	12	3	7	7	1991
(NA)	113.5	16.0	56.2	41.2	(NA)	16	4	13	7	1990
(NA)	117.8	21.1	63.0	33.6	(NA)	5	12	3	5	1989
(NA)	88.5	14.8	46.8	26.9	(NA)	(X)	(X)	2	8	1988
210.0	205.6	55.4	80.5	69.7	4.4	8	7	19	6	1992 MD
(NA)	212.4	47.6	77.7	87.1	(NA)	8	8	4	4	1991
(NA)	194.2	47.6	77.8	68.8	(NA)	11	3	10	6	1990
(NA)	192.4	49.9	83.4	59.1	(NA)	38	7	15	6	1989
(NA)	216.3	70.1	84.0	62.1	(NA)	(X)	(X)	13	6	1988
261.0	246.2	34.3	106.9	105.1	14.8	20	11	11	7	1992 MA
(NA)	247.8	39.1	99.2	109.5	(NA)	19	16	16	9	1991
(NA)	249.2	33.7	88.8	126.8	(NA)	29	11	18	13	1990
(NA)	268.9	51.3	84.6	19.3	(NA)	23	22	12	16	1989
(NA)	208.9	34.2	74.3	100.4	(NA)	(X)	(X)	16	7	1988
796.1	763.0	220.2	290.8	252.0	33.1	8	5	7	3	1992 MI
(NA)	692.6	186.1	266.0	240.5	(NA)	6	4	6	3	1991
(NA)	739.5	195.9	273.6	270.0	(NA)	14	5	7	5	1990
(NA)	703.8	180.0	274.6	249.2	(NA)	42	8	23	4	1989
(NA)	713.6	227.0	296.6	190.1	(NA)	(X)	(X)	4	7	1988
261.4	254.5	72.2	102.5	79.8	7.0	24	15	7	6	1992 MN
(NA)	247.3	58.7	87.3	101.3	(NA)	7	18	10	14	1991
(NA)	211.9	61.2	77.4	73.3	(NA)	26	4	3	7	1990
(NA)	204.2	54.8	73.9	75.5	(NA)	17	10	14	7	1989
(NA)	168.5	41.3	72.7	54.4	(NA)	(X)	(X)	10	6	1988
271.9	269.1	120.9	86.1	62.1	2.8	32	10	6	7	1992 MS
(NA)	216.0	101.0	62.6	52.3	(NA)	19	3	19	5	1991
(NA)	201.0	92.4	65.0	43.6	(NA)	7	4	6	5	1990
(NA)	160.6	62.5	62.2	36.0	(NA)	29	9	5	6	1989
(NA)	153.9	53.2	63.7	37.1	(NA)	(X)	(X)	10	6	1988
299.1	287.6	79.2	111.6	96.8	11.6	11	8	8	4	1992 MO
(NA)	268.4	59.8	115.2	93.4	(NA)	13	15	8	7	1991
(NA)	344.2	72.9	160.1	111.2	(NA)	17	5	13	17	1990
(NA)	319.6	66.4	137.4	115.8	(NA)	16	25	18	18	1989
(NA)	230.4	66.0	82.6	81.7	(NA)	(X)	(X)	16	5	1988
(D)	25.5	17.3	4.8	3.4	(D)	17	7	9	12	1992 MT
(NA)	44.5	25.2	11.9	7.4	(NA)	82	17	43	5	1991
(NA)	39.9	21.9	11.7	6.4	(NA)	67	5	7	16	1990
(NA)	39.6	21.8	12.5	5.3	(NA)	(X)	18	(X)	14	1989
(NA)	31.3	19.4	8.3	3.6	(NA)	(X)	(X)	(X)	4	1988
62.7	60.0	12.8	23.6	23.5	2.7	26	28	11	12	1992 NE
(NA)	41.1	8.7	14.8	17.6	(NA)	14	10	15	16	1991
(NA)	37.9	9.3	14.6	14.0	(NA)	29	12	19	15	1990
(NA)	32.9	9.4	12.1	11.4	(NA)	18	11	15	11	1989
(NA)	43.9	10.9	18.1	14.9	(NA)	(X)	(X)	19	11	1988
12.7	11.0	3.4	4.6	3.0	1.8	128	65	45	20	1992 NV
(NA)	9.0	3.1	2.6	3.3	(NA)	41	61	29	50	1991
(NA)	7.8	1.4	2.9	3.4	(NA)	273	12	69	38	1990
(NA)	9.5	2.1	5.3	2.2	(NA)	2	53	52	53	1989
(NA)	11.3	4.6	3.0	3.7	(NA)	(X)	(X)	58	33	1988
47.4	44.1	5.8	20.6	17.7	3.4	(X)	17	(X)	15	1992 NH
(NA)	49.7	5.2	22.6	21.9	(NA)	23	5	13	13	1991
(NA)	51.3	6.3	21.5	23.5	(NA)	28	8	26	14	1990
(NA)	51.9	7.3	19.7	24.9	(NA)	17	22	23	14	1989
(NA)	36.1	3.1	18.2	14.8	(NA)	(X)	(X)	6	8	1988
784.8	673.8	146.6	285.7	241.5	111.0	8	16	12	13	1992 NJ
(NA)	669.5	188.7	244.4	236.4	(NA)	8	4	4	9	1991
(NA)	668.9	169.9	273.8	225.3	(NA)	10	5	6	6	1990
(NA)	615.5	147.2	231.3	237.0	(NA)	14	9	8	7	1989
(NA)	595.4	163.4	185.3	186.8	(NA)	(X)	(X)	7	4	1988
65.2	63.4	34.2	11.4	17.8	1.8	127	52	70	42	1992 NM
(NA)	54.7	29.1	11.5	14.1	(NA)	16	4	26	15	1991
(NA)	51.8	31.9	7.3	12.6	(NA)	438	5	64	17	1990
(NA)	45.0	26.0	8.0	11.1	(NA)	(X)	15	(X)	18	1989
(NA)	56.2	(D)	(D)	8.0	(NA)	(X)	(X)	4	3	1988
718.5	650.6	115.5	235.6	289.4	67.9	7	7	8	5	1992 NY
(NA)	685.5	106.0	248.2	311.3	(NA)	12	9	8	6	1991
(NA)	619.5	109.6	239.9	270.0	(NA)	14	3	12	6	1990
(NA)	624.6	111.5	241.9	271.2	(NA)	23	10	10	6	1989
(NA)	556.5	87.7	206.8	282.1	(NA)	(X)	(X)	6	7	1988
580.8	554.4	185.5	213.2	155.6	26.5	8	9	4	3	1992 NC
(NA)	433.4	113.5	182.6	137.2	(NA)	15	9	8	7	1991
(NA)	431.4	117.7	172.1	141.7	(NA)	16	5	9	7	1990
(NA)	411.1	110.2	168.7	132.2	(NA)	12	11	8	8	1989
(NA)	344.3	109.2	143.6	91.5	(NA)	(X)	(X)	4	5	1988
(D)	19.3	4.4	6.8	8.1	(D)	29	117	32	52	1992 ND
(NA)	8.7	(D)	3.3	(D)	(NA)	(X)	4	(X)	12	1991
(NA)	8.0	1.7	2.8	3.5	(NA)	(X)	10	(X)	13	1990
(NA)	5.3	1.3	2.2	1.8	(NA)	23	13	27	18	1989
(NA)	10.2	(D)	4.5	(D)	(NA)	(X)	(X)	19	18	1988

Table 2. Summary Capital Expenditures and Operating Costs by States: 1988 to 1992—Con.

[Million dollars, except percentages. Totals may not agree with detail because of independent rounding. For data prior to 1988, see MA200(88)-1. Statistics in this table cover manufacturing

State and year	Pollution abatement capital expenditures (PACE) ¹						
	Total PACENM ²	Media				Nonmedia and other	
		Total	Air	Water	Solid/contained waste		
Ohio	1992.. 335.6	309.1	142.7	127.4	39.0	26.4	
	1991.. (NA)	290.0	130.9	93.8	65.3	(NA)	
	1990.. (NA)	298.9	130.8	128.5	39.5	(NA)	
	1989.. (NA)	240.4	107.0	99.5	33.9	(NA)	
	1988.. (NA)	172.1	55.4	78.4	38.2	(NA)	
Oklahoma	1992.. 42.6	41.1	13.9	10.8	16.4	1.5	
	1991.. (NA)	63.4	28.8	30.4	4.2	(NA)	
	1990.. (NA)	38.3	18.2	17.3	2.7	(NA)	
	1989.. (NA)	34.5	18.8	12.1	2.6	(NA)	
	1988.. (NA)	20.7	13.4	4.7	2.6	(NA)	
Oregon	1992.. 109.5	105.8	37.0	63.2	5.6	3.7	
	1991.. (NA)	74.3	12.9	47.4	14.0	(NA)	
	1990.. (NA)	51.5	23.2	21.8	6.5	(NA)	
	1989.. (NA)	39.3	16.5	16.7	6.1	(NA)	
	1988.. (NA)	36.6	18.4	12.7	5.5	(NA)	
Pennsylvania	1992.. 305.7	272.4	140.5	63.0	68.9	33.4	
	1991.. (NA)	340.4	185.9	124.3	30.2	(NA)	
	1990.. (NA)	206.1	94.1	81.5	30.6	(NA)	
	1989.. (NA)	166.2	71.5	71.7	23.0	(NA)	
	1988.. (NA)	119.0	51.3	46.4	21.2	(NA)	
Rhode Island	1992.. 5.4	2.2	.8	1.3	.2	3.2	
	1991.. (NA)	5.9	1.4	4.2	.2	(NA)	
	1990.. (NA)	13.6	4.2	5.7	3.7	(NA)	
	1989.. (NA)	12.1	3.3	5.3	3.6	(NA)	
	1988.. (NA)	13.4	5.7	5.2	2.5	(NA)	
South Carolina	1992.. 126.0	119.9	44.1	64.7	11.1	6.1	
	1991.. (NA)	99.3	42.8	44.5	12.0	(NA)	
	1990.. (NA)	127.4	53.6	57.0	16.8	(NA)	
	1989.. (NA)	100.8	43.6	46.8	10.4	(NA)	
	1988.. (NA)	47.3	14.9	22.0	10.4	(NA)	
South Dakota	1992.. 4.3	(D)	(D)	1.1	.5	(D)	
	1991.. (NA)	3.0	2.2	.2	.6	(NA)	
	1990.. (NA)	(D)	(D)	(D)	(D)	(NA)	
	1989.. (NA)	(D)	(D)	(D)	(D)	(NA)	
	1988.. (NA)	(D)	(D)	(D)	(D)	(NA)	
Tennessee	1992.. 222.2	218.3	163.9	33.5	21.0	3.9	
	1991.. (NA)	139.2	95.1	28.4	15.7	(NA)	
	1990.. (NA)	136.3	84.4	39.2	12.7	(NA)	
	1989.. (NA)	86.1	38.4	32.8	14.9	(NA)	
	1988.. (NA)	148.1	42.8	78.9	26.5	(NA)	
Texas	1992.. 1 491.8	1 446.0	777.2	483.5	185.3	45.8	
	1991.. (NA)	1 055.7	511.4	390.1	154.2	(NA)	
	1990.. (NA)	895.3	328.7	417.8	148.8	(NA)	
	1989.. (NA)	481.0	150.1	214.9	116.0	(NA)	
	1988.. (NA)	365.3	78.4	183.6	103.3	(NA)	
Utah	1992.. 86.9	86.4	74.8	10.0	1.6	5	
	1991.. (NA)	61.9	51.7	8.8	1.4	(NA)	
	1990.. (NA)	32.2	5.8	21.6	4.7	(NA)	
	1989.. (NA)	17.9	5.7	11.0	1.3	(NA)	
	1988.. (NA)	16.4	(D)	(D)	3.9	(NA)	
Vermont	1992.. (D)	13.7	1.5	9.0	3.2	(D)	
	1991.. (NA)	3.0	(D)	.3	(D)	(NA)	
	1990.. (NA)	(D)	1.4	5.0	(D)	(NA)	
	1989.. (NA)	6.2	(D)	4.5	(D)	(NA)	
	1988.. (NA)	4.1	.7	3.2	.1	(NA)	
Virginia	1992.. 222.8	217.6	128.0	65.1	24.4	5.2	
	1991.. (NA)	119.0	60.9	39.3	18.8	(NA)	
	1990.. (NA)	75.5	24.3	36.6	14.6	(NA)	
	1989.. (NA)	79.2	36.4	37.1	5.7	(NA)	
	1988.. (NA)	70.4	29.5	25.7	15.2	(NA)	
Washington	1992.. 195.3	186.7	101.5	41.5	43.7	8.5	
	1991.. (NA)	389.0	86.2	283.5	19.3	(NA)	
	1990.. (NA)	127.4	30.7	61.4	35.2	(NA)	
	1989.. (NA)	104.9	30.9	45.4	28.6	(NA)	
	1988.. (NA)	56.6	20.4	21.7	14.5	(NA)	
West Virginia	1992.. 90.4	85.1	21.5	33.6	30.0	5.3	
	1991.. (NA)	51.3	27.4	18.8	5.1	(NA)	
	1990.. (NA)	51.5	20.8	27.0	3.7	(NA)	
	1989.. (NA)	40.4	11.2	22.3	6.9	(NA)	
	1988.. (NA)	69.9	20.1	28.4	20.4	(NA)	
Wisconsin	1992.. 147.3	136.9	63.2	52.2	21.5	10.4	
	1991.. (NA)	201.1	120.2	50.2	30.7	(NA)	
	1990.. (NA)	164.2	97.2	40.0	27.0	(NA)	
	1989.. (NA)	119.2	62.6	28.5	28.1	(NA)	
	1988.. (NA)	73.9	35.7	15.3	22.9	(NA)	
Wyoming	1992.. (D)	11.8	(D)	6.3	(D)	(D)	
	1991.. (NA)	13.9	8.7	2.8	2.4	(NA)	
	1990.. (NA)	13.9	(D)	(D)	(D)	(NA)	
	1989.. (NA)	5.0	(D)	3.0	(D)	(NA)	
	1988.. (NA)	(D)	(D)	1.2	.5	(NA)	

¹Excludes Major Group 23, Apparel and Other Textile Products.²PACENM denotes pollution abatement capital expenditures, including the nonmedia and other.³PAOCNM denotes pollution abatement operating costs, including the nonmedia and other.

establishments with 20 or more employees. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

Pollution abatement operating costs (PAOC) ¹						Standard error of change (percent)		Standard error of estimate (percent)		State and year
Total PAOCNM ²	Media				Nonmedia and other	PACE	PAOC	PACE	PAOC	
	Total	Air	Water	Solid/contained waste						
1 170.0	1 030.8	271.6	365.9	393.4	139.2	10	4	5	4	1992 OH
(NA)	1 031.9	271.0	373.3	387.6	(NA)	11	5	9	3	1991
(NA)	1 115.4	283.8	415.0	416.6	(NA)	9	4	7	5	1990
(NA)	984.0	280.0	362.3	341.7	(NA)	11	8	5	4	1989
(NA)	946.7	255.1	376.5	315.0	(NA)	(X)	(X)	7	7	1988
122.6	117.0	37.5	42.8	36.7	5.7	18	11	15	9	1992 OK
(NA)	110.0	31.8	40.6	37.6	(NA)	38	7	23	6	1991
(NA)	84.8	22.8	33.0	29.0	(NA)	11	5	7	7	1990
(NA)	82.7	18.6	30.0	34.1	(NA)	40	11	9	9	1989
(NA)	88.2	18.9	36.5	32.8	(NA)	(X)	(X)	23	8	1988
182.9	170.3	48.3	76.8	45.2	12.6	40	17	14	8	1992 OR
(NA)	200.4	53.5	70.4	76.5	(NA)	38	21	26	19	1991
(NA)	159.4	47.5	55.1	56.8	(NA)	17	5	10	11	1990
(NA)	141.9	49.5	47.3	45.1	(NA)	26	20	12	10	1989
(NA)	181.1	47.4	61.6	72.1	(NA)	(X)	(X)	22	23	1988
952.1	890.9	256.9	295.4	338.6	51.3	9	6	8	5	1992 PA
(NA)	867.6	175.8	275.5	416.2	(NA)	19	6	8	5	1991
(NA)	880.3	268.8	271.5	340.0	(NA)	11	4	9	4	1990
(NA)	833.4	264.6	258.5	310.2	(NA)	13	6	8	5	1989
(NA)	778.2	270.6	260.5	247.1	(NA)	(X)	(X)	6	4	1988
33.7	31.0	5.9	12.1	13.0	2.8	12	17	23	13	1992 RI
(NA)	34.4	3.9	14.3	16.1	(NA)	15	5	21	15	1991
(NA)	62.4	8.9	25.6	27.9	(NA)	35	1	28	14	1990
(NA)	63.1	8.5	22.4	32.1	(NA)	19	18	17	15	1989
(NA)	59.5	8.6	26.7	24.2	(NA)	(X)	(X)	13	10	1988
379.2	360.1	104.1	140.7	115.9	19.1	18	12	14	7	1992 SC
(NA)	344.4	65.0	141.7	137.7	(NA)	7	16	5	9	1991
(NA)	346.2	85.1	146.5	114.5	(NA)	19	3	8	16	1990
(NA)	329.1	81.2	133.7	114.2	(NA)	38	22	16	15	1989
(NA)	236.2	52.4	109.4	74.4	(NA)	(X)	(X)	9	5	1988
16.6	16.5	2.9	6.3	7.3	(Z)	(D)	80	(D)	33	1992 SD
(NA)	9.0	1.0	4.8	3.1	(NA)	629	17	60	29	1991
(NA)	6.4	.1	3.5	2.8	(NA)	(X)	25	(X)	25	1990
(NA)	4.9	.2	2.3	2.5	(NA)	(X)	21	(X)	22	1989
(NA)	8.7	4.0	2.9	1.8	(NA)	(X)	(X)	(X)	29	1988
474.7	441.0	99.0	189.8	152.2	33.7	20	8	12	6	1992 TN
(NA)	420.8	92.1	183.5	145.2	(NA)	12	8	7	6	1991
(NA)	398.6	91.4	179.9	127.4	(NA)	18	3	9	6	1990
(NA)	353.0	82.6	153.5	116.9	(NA)	5	7	8	6	1989
(NA)	356.0	95.2	149.7	111.0	(NA)	(X)	(X)	4	4	1988
2 700.2	2 092.2	791.7	753.7	546.8	608.0	11	4	8	2	1992 TX
(NA)	2 054.6	739.5	695.3	619.8	(NA)	5	4	4	3	1991
(NA)	1 888.0	709.7	606.4	571.9	(NA)	4	3	3	2	1990
(NA)	1 584.7	603.3	553.6	427.8	(NA)	3	3	2	3	1989
(NA)	1 474.8	594.9	541.5	398.4	(NA)	(X)	(X)	2	2	1988
129.7	123.4	52.4	31.8	39.1	6.3	73	38	49	22	1992 UT
(NA)	90.7	45.4	18.1	27.1	(NA)	92	20	20	18	1991
(NA)	94.7	29.0	17.8	48.0	(NA)	28	11	46	31	1990
(NA)	82.7	29.6	20.7	32.4	(NA)	38	48	34	27	1989
(NA)	48.7	18.7	15.6	14.5	(NA)	(X)	(X)	8	12	1988
19.8	17.5	2.9	5.9	8.8	2.2	170	37	38	24	1992 VT
(NA)	14.7	1.5	6.0	7.2	(NA)	28	15	5	20	1991
(NA)	16.6	5.2	4.8	6.7	(NA)	(X)	10	(X)	27	1990
(NA)	13.8	5.3	3.8	4.7	(NA)	97	29	58	31	1989
(NA)	17.3	3.0	7.3	7.1	(NA)	(X)	(X)	28	19	1988
361.9	334.4	93.5	139.3	101.6	27.4	58	11	26	8	1992 VA
(NA)	271.1	69.3	115.0	86.7	(NA)	29	3	19	5	1991
(NA)	271.9	68.8	119.3	83.7	(NA)	6	6	4	5	1990
(NA)	259.8	59.4	119.2	81.2	(NA)	11	8	8	8	1989
(NA)	268.4	76.6	111.7	80.1	(NA)	(X)	(X)	7	5	1988
394.3	368.2	124.1	132.2	111.9	26.1	26	8	14	6	1992 WA
(NA)	387.0	113.4	136.0	137.6	(NA)	134	8	52	6	1991
(NA)	374.4	102.8	150.2	121.4	(NA)	21	5	6	6	1990
(NA)	328.3	106.2	134.1	88.0	(NA)	33	9	17	7	1989
(NA)	313.6	107.0	129.5	77.0	(NA)	(X)	(X)	8	6	1988
306.6	283.6	75.9	124.1	83.5	23.1	21	24	12	17	1992 WV
(NA)	328.0	78.6	118.7	130.7	(NA)	3	3	5	2	1991
(NA)	208.9	49.7	94.1	65.1	(NA)	7	2	5	3	1990
(NA)	180.6	41.1	89.3	60.3	(NA)	6	9	6	4	1989
(NA)	137.5	34.6	64.8	38.1	(NA)	(X)	(X)	7	5	1988
404.3	394.1	83.1	176.1	134.9	10.2	16	13	22	10	1992 WI
(NA)	354.0	84.7	142.8	126.5	(NA)	14	10	8	7	1991
(NA)	348.4	75.9	150.0	122.5	(NA)	10	9	9	7	1990
(NA)	343.8	68.9	146.3	128.5	(NA)	23	12	7	10	1989
(NA)	301.4	51.2	146.6	103.7	(NA)	(X)	(X)	13	4	1988
28.8	28.7	15.5	9.8	3.3	.1	48	38	29	17	1992 WY
(NA)	19.9	6.2	7.0	6.7	(NA)	27	1	48	21	1991
(NA)	18.5	4.3	(D)	(D)	(NA)	78	15	31	20	1990
(NA)	12.9	5.5	4.2	3.2	(NA)	(X)	25	(X)	28	1989
(NA)	31.2	25.4	3.4	2.5	(NA)	(X)	(X)	(X)	52	1988

Table 3. Capital Expenditures by Industries for All Media: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	All Industries¹	7 866.9	4 403.1	2 509.8	954.0	3
20	Food and kindred products	316.8	85.1	202.6	29.1	7
201	Meat products	46.8	3.7	37.1	6.0	12
2011	Meat packing plants	10.5	1.5	8.3	.7	22
2013	Sausages and other prepared meats	5.6	.1	2.0	3.5	67
2015	Poultry slaughtering and processing	30.8	2.0	26.9	1.8	11
202	Dairy products	36.7	3.8	23.5	9.3	25
2021	Creamery butter	1.5	-	-	1.5	83
2022	Cheese, natural and processed	12.7	.3	12.2	.2	50
2023	Dry, condensed, and evaporated dairy products	4.5	.4	(D)	(D)	11
2024	Ice cream and frozen desserts	6.9	.1	(D)	(D)	80
2026	Fluid milk	11.1	3.0	7.0	1.1	25
203	Preserved fruits and vegetables	46.9	3.8	40.7	2.3	10
2032	Canned specialties	1.3	(D)	.3	(D)	14
2033	Canned fruits and vegetables	19.9	2.2	16.7	1.0	15
2034	Dehydrated fruits, vegetables, and soups	4.0	(Z)	(D)	(D)	29
2035	Pickles, sauces, and salad dressings	1.0	(D)	(D)	(Z)	45
2037	Frozen fruits and vegetables	18.4	.7	17.3	.5	15
2038	Frozen specialties, n.e.c.	2.2	.1	1.7	.5	49
204	Grain mill products	52.9	32.3	17.1	3.5	7
2041	Flour and other grain mill products	1.5	1.3	(Z)	.1	56
2043	Cereal breakfast foods	9.0	6.5	(D)	(D)	11
2046	Wet corn milling	31.4	21.0	5.4	.8	1
2047	Dog and cat food	8.6	2.4	5.4	.8	33
2048	Prepared feeds, n.e.c.	1.8	1.0	.8	(Z)	54
205	Bakery products	18.2	7.0	9.0	2.2	25
2051	Bread, cake, and related products	11.5	3.4	6.1	2.0	34
2052	Cookies and crackers	5.8	3.6	1.9	.3	36
2053	Frozen bakery products, except bread	1.0	-	1.0	-	77
206	Sugar and confectionery products	27.7	6.3	20.5	.9	22
2061	Raw cane sugar	7.5	.5	6.7	.3	50
2063	Beet sugar	12.7	4.5	8.3	(Z)	37
2064	Candy and other confectionery products	(D)	(D)	(D)	.1	(X)
2068	Salted and roasted nuts and seeds	(D)	(D)	(D)	.1	(X)
207	Fats and oils	20.4	15.9	3.5	1.0	54
2074	Cottonseed oil mills	11.5	10.3	1.1	-	95
2075	Soybean oil mills	4.8	3.5	.5	.8	16
2077	Animal and marine fats and oils	1.3	1.1	.1	-	96
2079	Edible fats and oils, n.e.c.	2.9	1.0	1.7	.2	21
208	Beverages	27.6	7.7	17.5	2.5	5
2082	Malt beverages	(D)	(D)	(D)	(D)	(X)
2086	Bottled and canned soft drinks	(D)	.7	3.4	(D)	(X)
2087	Flavoring extracts and syrups, n.e.c.	1.7	(D)	(D)	-	58
209	Miscellaneous food and kindred products	39.7	4.5	33.8	1.4	34
2091	Canned and cured fish and seafoods	(D)	-	(D)	-	(X)
2095	Roasted coffee	1.5	(D)	(Z)	(D)	39
2096	Potato chips and similar snacks	(D)	(D)	(D)	(D)	(X)
2099	Food preparations, n.e.c.	18.5	1.0	17.0	.5	46
21	Tobacco products	14.5	12.9	(D)	(D)	15
211	Cigarettes	9.7	9.5	(D)	(D)	22
2111	Cigarettes	9.7	9.5	(D)	(D)	22
214	Tobacco stemming and redrying	4.5	3.2	(D)	(D)	3
2141	Tobacco stemming and redrying	4.5	3.2	(D)	(D)	3
22	Textile mill products	34.3	11.8	18.7	3.9	10
221	Broadwoven fabrics mills, cotton	5.0	1.5	2.7	.8	30
2211	Broadwoven fabrics mills, cotton	5.0	1.5	2.7	.8	30
222	Broadwoven fabrics mills, manmade fiber and silk	3.4	1.5	1.4	.5	17
2221	Broadwoven fabrics mills, manmade fiber and silk	3.4	1.5	1.4	.5	17
223	Broadwoven fabrics mills, wool	1.3	(D)	1.0	(D)	22
2231	Broadwoven fabrics mills, wool	1.3	(D)	1.0	(D)	22
225	Knitting mills	5.4	3.1	2.1	.3	12
2257	Weft knit fabrics mills	1.8	(D)	(D)	.2	11
2258	Lace and warp knit fabrics mills	2.1	(D)	(D)	(Z)	27
226	Textile finishing, except wool	12.0	2.2	9.0	.8	21
2261	Finishing plants, cotton	6.9	(D)	5.7	(D)	30
2262	Finishing plants, manmade	4.5	(D)	3.2	(D)	32
228	Yarn and thread mills	3.1	1.8	.7	.6	23
2281	Yarn spinning mills	2.1	1.1	(D)	(D)	26
2282	Throwing and winding mills	1.0	.7	(D)	(D)	45
229	Miscellaneous textile goods	3.5	(D)	1.4	(D)	9
2295	Coated fabrics, not rubberized	.5	(D)	(D)	-	58
2297	Nonwoven fabrics	2.9	1.1	(D)	(D)	4
24	Lumber and wood products	94.5	50.7	18.9	24.9	12
241	Logging	1.0	(Z)	.9	.1	44
2411	Logging	1.0	(Z)	.9	.1	44
242	Sawmills and planing mills	24.6	9.0	4.7	10.9	6
2421	Sawmills and planing mills, general	22.9	8.1	4.4	10.4	5
2426	Hardwood dimension and flooring mills	1.8	.9	.4	.5	31

See footnotes at end of table.

Table 3. Capital Expenditures by Industries for All Media: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
24	Lumber and wood products—Con.					
243	Millwork, plywood, and structural members	23.5	10.3	3.4	9.7	29
2431	Millwork	5.8	1.1		4.3	64
2434	Wood kitchen cabinets	7.3	2.8	.4		64
2435	Hardwood veneer and plywood	4.1	4.1	.1	4.4	56
2436	Softwood veneer and plywood	6.0	2.1	(2)	-	73
245	Wood buildings and mobile homes	(D)	(D)	2.8	1.0	39
2451	Mobile homes	(D)	(D)	.1	.2	(X)
249	Miscellaneous wood products	(D)	(D)	-	(2)	(X)
2491	Wood preserving	10.0	(D)	9.7	3.9	(X)
2493	Reconstituted wood products	16.8	4	6.9	2.8	11
2499	Wood products, n.e.c.	(D)	(D)	2.8	1.0	11
25	Furniture and fixtures	17.9	14.3	(2)	.1	(X)
251	Household furniture	11.0	9.7	.8	2.8	15
2511	Wood household furniture	9.7	8.6	.1	1.1	22
252	Office furniture	3.4	2.3		1.1	25
2521	Wood office furniture	2.0	1.7	.3	.8	30
2522	Office furniture, except wood	1.5	.7	.1	.2	50
254	Partitions and fixtures	2.6	1.7	.2	.6	11
2542	Partitions and fixtures, except wood	2.3	1.4	.3	.6	27
26	Paper and allied products	1 004.6	396.7	373.4	234.5	30
261	Pulp mills	147.1	82.9	42.6	21.6	6
2611	Pulp mills	147.1	82.9	42.6	21.6	5
262	Paper mills	611.0	158.1	266.4	186.6	8
2621	Paper mills	611.0	158.1	266.4	186.6	8
263	Paperboard mills	203.9	129.7	57.1	17.1	8
2631	Paperboard mills	203.9	129.7	57.1	17.1	8
265	Paperboard containers and boxes	7.9	4.4	1.5	1.9	24
2653	Corrugated and solid fiber boxes	3.0	.7	.9	1.3	35
2657	Folding paperboard boxes	3.6	2.5	.5	.6	35
267	Miscellaneous converted paper products	34.8	21.7	5.8	7.3	13
2671	Paper coated and laminated, packaging	6.0	3.6	1.4	1.0	44
2672	Paper coated and laminated, n.e.c.	14.2	11.4	1.6	1.2	19
2673	Bags; plastics, laminated, and coated	4.0	3.0	.5	.5	36
2676	Sanitary paper products	5.8	(D)	1.2	(D)	15
2677	Envelopes	1.6	-	.1	1.6	70
2679	Converted paper products, n.e.c.	1.6	(D)	.8	(D)	37
27	Printing and publishing	41.8	32.9	4.5	4.4	13
271	Newspapers	2.3	.3	1.7	.2	32
2711	Newspapers	2.3	.3	1.7	.2	32
273	Books	3.7	3.4	.2	.2	19
2732	Book printing	3.3	3.0	.1	.2	22
275	Commercial printing	28.9	24.8	1.7	2.4	14
2752	Commercial printing, lithographic	17.0	14.7	1.1	1.2	12
2754	Commercial printing, gravure	8.0	7.5	(D)	(D)	38
2759	Commercial printing, n.e.c.	3.9	2.6	(D)	(D)	44
276	Manifold business forms	1.5	(D)	.3	(D)	38
2761	Manifold business forms	1.5	(D)	.3	(D)	38
278	Blankbooks and bookbinding	3.7	(D)	-	(D)	84
2789	Bookbinding and related work	3.5	(D)	-	(D)	88
28	Chemicals and allied products	2 120.9	774.5	1 017.3	329.1	3
281	Industrial inorganic chemicals	230.9	77.7	110.9	42.3	9
2812	Alkalies and chlorine	62.0	(D)	50.5	(D)	4
2813	Industrial gases	3.5	(D)	1.0	(D)	-
2816	Inorganic pigments	26.9	17.2	6.1	3.6	3
2819	Industrial inorganic chemicals, n.e.c.	138.6	50.8	53.4	34.4	14
282	Plastics materials and synthetics	370.7	192.1	136.4	42.1	5
2821	Plastics materials and resins	205.0	98.2	76.6	30.2	6
2822	Synthetic rubber	61.6	37.0	17.4	7.3	25
2823	Cellulosic manmade fibers	(D)	(D)	(D)	(D)	(X)
2824	Organic fibers, noncellulosic	(D)	(D)	(D)	(D)	(X)
283	Drugs	190.4	68.7	88.1	33.7	5
2833	Medicinals and botanicals	83.1	31.5	(D)	(D)	1
2834	Pharmaceutical preparations	103.3	36.4	42.7	24.3	9
2835	Diagnostic substances	2.7	(D)	2.1	(D)	20
2836	Biological products, except diagnostic	1.3	(D)	(D)	(D)	4
284	Soaps, cleaners, and toilet goods	48.0	19.3	24.4	4.3	8
2841	Soap and other detergents	22.1	7.2	12.4	2.5	13
2842	Polishes and sanitation goods	4.1	(D)	1.2	(D)	17
2843	Surface active agents	17.8	9.0	7.8	1.0	11
2844	Toilet preparations	3.9	(D)	3.0	(D)	22
285	Paints and allied products	14.6	5.9	6.8	2.0	17
2851	Paints and allied products	14.6	5.9	6.8	2.0	17
286	Industrial organic chemicals	1 013.4	332.8	529.0	151.7	4
2861	Gum and wood chemicals	4.4	(D)	3.0	(D)	-
2865	Cyclic crudes and intermediates	134.1	(D)	64.8	(D)	6
2869	Industrial organic chemicals, n.e.c.	874.9	292.7	461.2	121.0	4
287	Agricultural chemicals	210.6	57.7	108.0	44.9	1
2873	Nitrogenous fertilizers	23.7	18.0	(D)	(D)	5
2874	Phosphatic fertilizers	80.7	19.7	(D)	(D)	1
2879	Agricultural chemicals, n.e.c.	105.3	19.7	58.0	27.6	1

See footnotes at end of table.

Table 3. Capital Expenditures by Industries for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
28	Chemicals and allied products—Con.	42.2	20.3	13.7	8.2	6
289	Miscellaneous chemical products	6.2	2.0	1.0	3.2	21
2891	Adhesives and sealants	7.3	(D)	(D)	2.6	3
2892	Explosives	1.2	1.1	(Z)	-	86
2893	Printing ink	1.1	(D)	(D)	.3	37
2895	Carbon black	26.5	12.4	12.0	2.0	6
2899	Chemical preparations, n.e.c.					6
		2 685.0	2 079.8	492.6	112.6	6
29	Petroleum and coal products	2 674.6	2 074.8	488.0	111.7	6
291	Petroleum refining	2 674.6	2 074.8	488.0	111.7	6
2911	Petroleum refining					7
295	Asphalt paving and roofing materials	3.4	2.6	.5	.2	4
2952	Asphalt felts and coatings	2.7	2.2	.3	.2	9
299	Miscellaneous petroleum and coal products	7.0	2.4	4.1	.6	12
2992	Lubricating oils and greases	5.0	1.0	(D)	(D)	9
2999	Petroleum and coal products, n.e.c.	2.0	1.4	(D)	(D)	27
		96.7	71.1	18.2	7.3	9
30	Rubber and miscellaneous plastics products	3.8	2.4	1.1	.3	9
301	Tires and inner tubes	3.8	2.4	1.1	.3	9
3011	Tires and inner tubes					16
305	Hose and belting and gaskets and packing	4.6	2.6	(D)	(D)	18
3052	Rubber and plastics hose and belting	4.1	2.2	(D)	(D)	20
306	Fabricated rubber products, n.e.c.	10.6	7.7	(D)	(D)	60
3061	Mechanical rubber goods	3.4	2.2	.2	(D)	4
3069	Fabricated rubber products, n.e.c.	7.2	5.6	(D)	(D)	34
308	Miscellaneous plastics products, n.e.c.	77.3	58.3	13.5	5.5	20
3081	Unsupported plastics film and sheet	23.3	17.8	3.8	1.7	45
3083	Laminated plastics plate, sheet, and profile shapes	1.2	.2	1.0	.1	86
3084	Plastics pipe	1.0	.6	.2	.2	82
3086	Plastics foam products	30.9	27.6	2.7	.6	33
3087	Custom compounding of purchased plastics	4.9	1.9	2.2	.8	21
3089	Plastics products, n.e.c.	14.7	10.0	3.1	1.6	43
31	Leather and leather products	8.1	.8	6.6	.7	45
311	Leather tanning and finishing	8.1	.8	6.6	.7	45
3111	Leather tanning and finishing					15
		138.8	93.4	20.2	25.3	46
32	Stone, clay, and glass products	1.6	1.1	(Z)	.5	46
321	Flat glass	1.6	1.1	(Z)	.5	46
3211	Flat glass					10
322	Glass and glassware, pressed or blown	14.1	8.7	4.5	1.0	21
3221	Glass containers	4.2	1.2	2.5	.4	10
3229	Pressed and blown glass, n.e.c.	10.0	7.4	2.0	.5	8
323	Products of purchased glass	18.2	(D)	(D)	(D)	8
3231	Products of purchased glass	18.2	(D)	(D)	(D)	8
324	Cement, hydraulic	34.5	29.9	3.0	1.6	22
3241	Cement, hydraulic	34.5	29.9	3.0	1.6	22
325	Structural clay products	5.8	(D)	(D)	(D)	31
3253	Ceramic wall and floor tile	1.6	(D)	(D)	(D)	-
3255	Clay refractories	2.3	2.3	(Z)	-	63
3259	Structural clay products, n.e.c.	1.2	1.2	-	-	82
326	Pottery and related products	1.5	.9	.3	.3	11
327	Concrete, gypsum, and plaster products	27.7	8.2	2.2	17.2	66
3272	Concrete products, n.e.c.	1.5	.8	.6	.1	31
3273	Ready-mixed concrete	21.8	4.5	1.4	15.9	83
3274	Lime	1.8	1.4	(D)	(D)	41
3275	Gypsum products	2.6	1.5	(D)	(D)	17
329	Miscellaneous nonmetallic mineral products	35.4	27.6	4.4	3.4	12
3291	Abrasive products	11.1	9.1	(D)	(D)	6
3295	Minerals, ground or treated	7.7	5.5	(D)	(D)	48
3296	Mineral wool	14.0	11.2	1.9	1.0	12
3297	Nonclay refractories	2.1	1.5	.4	.3	36
		525.7	342.6	123.5	59.5	5
33	Primary metal industries	276.7	199.2	59.6	17.8	8
331	Blast furnace and basic steel products	254.1	189.0	54.9	10.2	9
3312	Blast furnaces and steel mills	13.6	7.2	.2	6.3	36
3313	Electrometallurgical products	1.7	.9	.4	.3	29
3315	Steel wire and related products	4.2	(D)	3.5	(D)	4
3316	Cold finishing of steel shapes	3.1	(D)	.6	(D)	27
3317	Steel pipe and tubes					13
332	Iron and steel foundries	58.5	33.4	6.6	18.5	15
3321	Gray and ductile iron foundries	46.7	24.5	5.2	17.0	2
3324	Steel investment foundries	2.7	2.3	.4	(Z)	17
3325	Steel foundries, n.e.c.	8.6	6.2	1.0	1.4	4
333	Primary nonferrous metals	108.5	71.9	21.6	15.1	5
3331	Primary copper	49.2	41.4	(D)	(D)	7
3334	Primary aluminum	36.5	26.0	6.3	4.1	9
3339	Primary nonferrous metals, n.e.c.	22.8	4.4	(D)	(D)	7
334	Secondary nonferrous metals	11.1	10.1	(D)	(D)	7
3341	Secondary nonferrous metals	11.1	10.1	(D)	(D)	6
335	Nonferrous rolling and drawing	53.6	17.3	30.3	6.0	13
3351	Copper rolling and drawing	13.2	(D)	10.1	(D)	3
3353	Aluminum sheet, plate, and foil	27.2	12.0	14.1	1.1	35
3354	Aluminum extruded products	3.9	.2	2.0	1.7	21
3356	Nonferrous rolling and drawing, n.e.c.	4.4	1.1	1.1	2.5	42
3357	Nonferrous wire drawing and insulating	4.7				

See footnotes at end of table.

Table 3. Capital Expenditures by Industries for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
33	Primary metal industries—Con.					
336	Nonferrous foundries (castings)	8.8	3.8	(D)	(D)	14
3363	Aluminum die-castings	4.3	1.0	1.9	1.5	13
3364	Nonferrous die-castings, except aluminum	1.9	.9	1.0	.1	42
3365	Aluminum foundries	1.5	1.0	(D)	(D)	10
339	Miscellaneous primary metal products	8.6	6.8	1.8	.1	36
3398	Metal heat treating	1.2	.5	.6	(Z)	27
3399	Primary metal products, n.e.c.	7.4	6.2	1.1	(Z)	42
34	Fabricated metal products	103.3	42.4	42.4	18.5	7
341	Metal cans and shipping containers	17.3	10.6	6.4	.3	23
3411	Metal cans	16.6	10.0	6.4	.3	24
342	Cutlery, handtools, and hardware	21.6	6.3	(D)	(D)	9
3421	Cutlery	(D)	(D)	(D)	.3	(X)
3423	Hand and edge tools, n.e.c.	3.9	2.3	.8	.8	36
3429	Hardware, n.e.c.	(D)	(D)	1.5	(D)	(X)
343	Plumbing and heating, except electric	2.3	.8	(D)	(D)	3
3432	Plumbing fixture fittings and trim	1.6	.2	(D)	(D)	4
344	Fabricated structural metal products	6.7	2.6	2.3	1.8	21
3443	Fabricated plate work (boiler shops)	2.0	1.0	.6	.4	18
3444	Sheet metal work	3.2	1.4	.9	.9	39
345	Screw machine products, bolts, etc.	4.5	1.6	2.2	.7	14
3451	Screw machine products	1.6	.4	.6	.3	37
3452	Bolts, nuts, rivets, and washers	2.9	1.1	1.3	.4	9
346	Metal forgings and stampings	6.8	1.9	4.0	.9	21
3462	Iron and steel forgings	2.6	.2	2.2	.2	41
3465	Automotive stampings	2.4	1.0	1.0	.4	31
3469	Metal stampings, n.e.c.	1.6	.7	.8	.2	39
347	Metal services, n.e.c.	14.6	5.0	7.6	2.0	19
3471	Plating and polishing	11.1	2.8	6.9	1.4	24
3479	Metal coating and allied services	3.5	2.2	.8	.6	23
348	Ordnance and accessories, n.e.c.	10.6	2.3	7.8	.5	6
3482	Small arms ammunition	4.2	.2	(D)	(D)	8
3483	Ammunition, except for small arms, n.e.c.	1.8	(D)	.7	(D)	21
3484	Small arms	1.3	.8	.4	.1	19
3489	Ordnance and accessories, n.e.c.	3.3	(D)	(D)	(D)	-
349	Miscellaneous fabricated metal products	18.9	11.3	5.8	1.8	25
3491	Industrial valves	4.5	2.9	1.1	.5	24
3494	Valves and pipe fittings, n.e.c.	2.5	1.1	1.2	.2	36
3495	Miscellaneous fabricated wire products	1.1	(Z)	1.0	-	93
3497	Metal foil and leaf	4.9	4.6	.1	.2	76
3498	Fabricated pipe and fittings	1.7	1.6	-	.1	81
3499	Fabricated metal products, n.e.c.	2.8	.4	2.1	.3	59
35	Industrial machinery and equipment	150.3	88.8	31.7	29.8	7
351	Engines and turbines	9.4	1.4	5.6	2.4	20
3511	Turbines and turbine generator sets	7.5	1.1	4.9	1.5	24
3519	Internal combustion engines, n.e.c.	1.9	.3	.7	.9	24
352	Farm and garden machinery	9.5	1.9	(D)	(D)	12
3523	Farm machinery and equipment	(D)	(D)	2.1	.5	(X)
3524	Lawn and garden equipment	(D)	(D)	(D)	(D)	(X)
353	Construction and related machinery	16.7	5.4	10.2	1.2	19
3531	Construction machinery	10.9	.6	9.6	.7	14
3535	Conveyors and conveying equipment	3.0	2.9	.1	(Z)	84
3537	Industrial trucks and tractors	1.2	1.2	-	(Z)	92
354	Metalworking machinery	6.8	4.9	1.0	.9	16
3541	Machine tools, metal cutting types	(D)	(D)	(Z)	(D)	(X)
3544	Special dies, tools, jigs, and fixtures	1.6	1.0	.2	.4	58
3545	Machine tool accessories	1.2	.7	.5	(Z)	32
3548	Welding apparatus	(D)	(D)	.1	(D)	(X)
355	Special industry machinery	1.6	.6	.4	.6	19
356	General industrial machinery	16.8	2.0	3.0	11.8	14
3561	Pumps and pumping equipment	3.9	.3	1.1	2.6	50
3562	Ball and roller bearings	2.0	.5	1.0	.5	37
3565	Packaging machinery	(D)	-	-	(D)	(X)
3569	General industrial machinery, n.e.c.	(D)	.9	.2	(D)	(X)
357	Computer and office equipment	11.8	5.2	(D)	(D)	10
3571	Electronic computers	3.9	2.0	1.7	.2	18
3572	Computer storage devices	6.7	2.6	(D)	(D)	14
3577	Computer peripheral equipment, n.e.c.	1.1	.6	(D)	(D)	24
358	Refrigeration and service machinery	63.1	56.6	4.0	2.5	9
3585	Refrigeration and heating equipment	61.8	55.8	3.8	2.3	9
359	Industrial machinery, n.e.c.	14.5	10.8	2.8	.9	44
3592	Carburetors, pistons, rings, and valves	4.6	3.9	.3	.4	62
3593	Fluid power cylinders and actuators	1.1	.2	.7	.1	62
3599	Industrial machinery, n.e.c.	8.7	6.5	1.8	.3	65
36	Electronic and other electric equipment	126.6	63.0	45.6	17.9	6
361	Electric distribution equipment	3.2	2.0	.7	.4	22
3613	Switchgear and switchboard apparatus	2.3	1.6	.2	.4	30
362	Electrical industrial apparatus	9.0	2.1	5.0	1.8	20
3621	Motors and generators	4.5	.8	2.0	1.6	20
3624	Carbon and graphite products	2.7	.9	1.8	(Z)	56
3625	Relays and industrial controls	1.8	.5	1.2	.1	13
363	Household appliances	7.4	2.7	2.7	2.0	14
3632	Household refrigerators and freezers	3.8	1.3	(D)	(D)	18
3633	Household laundry equipment	1.4	(Z)	(D)	(D)	8

See footnotes at end of table.

Table 3. Capital Expenditures by Industries for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
36	Electronic and other electric equipment—					
	Con.	10.8	5.4	4.5	.9	23
364	Electric lighting and wiring equipment	3.6	2.0	(D)	(D)	48
3641	Electric lamp bulbs and tubes	2.1	.5	1.2	(D)	38
3643	Current-carrying wiring devices	2.0	1.1	(D)	(D)	17
3644	Noncurrent-carrying wiring devices	1.1	1.1	(D)	(Z)	96
3646	Commercial lighting fixtures	1.7	.4	1.2	(Z)	64
3648	Lighting equipment, n.e.c.					3
365	Household audio and video equipment	1.3	.5	.6	.2	3
3651	Household audio and video equipment	1.1	.5	.6	.1	3
366	Communications equipment	5.7	2.6	1.5	1.6	27
3661	Telephone and telegraph apparatus	3.1	(D)	.3	(D)	14
3663	Radio and television communications equipment	2.6	(D)	1.3	(D)	55
367	Electronic components and accessories	69.2	33.8	27.0	8.4	8
3671	Electron tubes	2.0	(D)	(D)	(Z)	45
3672	Printed circuit boards	9.9	1.7	5.3	2.9	14
3674	Semiconductors and related devices	49.8	28.7	17.6	3.6	9
3678	Electronic connectors	1.3	(D)	(D)	(D)	83
3679	Electronic components, n.e.c.	5.6	.9	2.9	1.8	38
369	Miscellaneous electrical equipment and supplies	20.0	13.8	3.6	2.6	13
3691	Storage batteries	4.3	3.1	.9	.3	38
3692	Primary batteries, dry and wet	(D)	(D)	(D)	(X)	(X)
3694	Engine electrical equipment	5.5	3.2	.7	1.7	35
3695	Magnetic and optical recording media	(D)	(D)	(D)	.1	(X)
37	Transportation equipment	281.0	179.4	69.2	32.5	10
371	Motor vehicles and equipment	173.8	141.4	23.8	8.6	16
3711	Motor vehicles and car bodies	122.3	113.9	4.1	4.2	22
3714	Motor vehicle parts and accessories	50.4	26.5	19.6	4.3	9
372	Aircraft and parts	77.3	27.6	33.0	16.7	7
3721	Aircraft	24.4	13.3	4.5	6.6	11
3724	Aircraft engines and engine parts	22.5	(D)	11.9	(D)	12
3728	Aircraft parts and equipment, n.e.c.	30.4	(D)	16.5	(D)	10
373	Ship and boat building and repairing	2.6	.5	.7	1.4	19
3731	Ship building and repairing	2.4	.5	.7	1.2	20
374	Railroad equipment	(D)	.2	(D)	(D)	(X)
3743	Railroad equipment	(D)	.2	(D)	(D)	(X)
375	Motorcycles, bicycles, and parts	(D)	(D)	(D)	(D)	(X)
3751	Motorcycles, bicycles, and parts	(D)	(D)	(D)	(D)	(X)
376	Guided missiles, space vehicles, parts	17.7	6.4	7.4	3.9	13
3761	Guided missiles and space vehicles	11.3	4.4	4.0	2.9	9
3764	Space propulsion units and parts	4.2	1.9	1.3	1.0	32
3769	Space vehicle equipment, n.e.c.	2.1	-	2.1	-	66
379	Miscellaneous transportation equipment	(D)	(D)	(D)	.5	(X)
3795	Tanks and tank components	(D)	(Z)	(D)	(D)	(X)
3799	Transportation equipment, n.e.c.	1.4	(D)	1.1	(D)	8
38	Instruments and related products	89.1	52.7	18.8	17.5	11
381	Search and navigation equipment	12.0	7.7	2.8	1.5	5
3812	Search and navigation equipment	12.0	7.7	2.8	1.5	5
382	Measuring and controlling devices	(D)	(D)	(D)	3.6	(X)
3821	Laboratory apparatus and furniture	1.6	.1	1.5	-	89
3822	Environmental controls	1.1	.5	.2	.4	48
3824	Fluid meters and counting devices	(D)	(D)	(Z)	(Z)	(X)
3825	Instruments to measure electricity	1.4	.9	.4	(Z)	22
3826	Analytical instruments	1.1	.5	.5	.1	43
3829	Measuring and controlling devices, n.e.c.	6.5	(D)	(D)	3.0	68
384	Medical instruments and supplies	9.3	4.8	2.7	1.8	20
3841	Surgical and medical instruments	3.3	2.3	.3	.7	17
3842	Surgical appliances and supplies	3.1	2.1	.3	.7	25
3844	X-ray apparatus and tubes	1.1	.4	.4	.3	39
3845	Electromedical equipment	1.7	-	1.6	(Z)	91
385	Ophthalmic goods	(D)	(D)	(D)	(Z)	(X)
3851	Ophthalmic goods	(D)	(D)	(D)	(Z)	(X)
386	Photographic equipment and supplies	52.2	34.7	7.0	10.5	15
3861	Photographic equipment and supplies	52.2	34.7	7.0	10.5	15
39	Miscellaneous manufacturing industries	16.6	10.2	(D)	(D)	7
393	Musical instruments	1.2	1.1	.2	(Z)	44
3931	Musical instruments	1.2	1.1	.2	(Z)	44
394	Toys and sporting goods	2.1	.9	.8	.4	26
3949	Sporting and athletic goods, n.e.c.	1.9	.9	.8	.3	27
395	Pens, pencils, office, and art supplies	1.3	(D)	(D)	(D)	31
3951	Pens and mechanical pencils	1.0	(D)	(D)	(D)	38
396	Costume jewelry and notions	2.4	.3	1.3	.7	30
3965	Fasteners, buttons, needles, and pins	2.1	.3	1.1	.7	34
399	Miscellaneous manufactures	8.8	(D)	(D)	1.0	3
3995	Burial caskets	(D)	(D)	(D)	(D)	(X)
3996	Hard surface floor coverings, n.e.c.	(D)	6.3	(D)	(D)	(X)

*Excludes Major Group 23, Apparel and Other Textile Products.

Table 4a. Capital Expenditures by Major Groups for the Media Air: 1992

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Major group	Total PACE	Air							Standard error of estimate (PACE) (percent)
			Total	Type of pollutant abated			Abatement technique			
				Hazardous	Nonhazardous		End of line	Production process enhancements		
					Total	Particulates, etc. ¹			Other	
	All Industries²	7 866.9	4 403.1	959.1	3 444.0	3 033.8	410.4	2 533.7	1 869.5	3
20	Food and kindred products	316.8	85.1	2.0	83.1	58.0	25.2	69.9	15.1	7
21	Tobacco products	14.5	12.9	(2)	12.9	5.5	7.3	5.8	7.1	15
22	Textile mill products	34.3	11.8	1.6	10.2	5.4	4.7	8.4	3.3	10
24	Lumber and wood products	94.5	50.7	2.3	48.4	24.0	24.4	42.0	8.7	12
25	Furniture and fixtures	17.9	14.3	1.8	12.5	7.6	4.8	7.8	6.5	15
26	Paper and allied products	1 004.6	396.7	61.7	334.9	215.6	119.3	263.0	133.7	6
27	Printing and publishing	41.8	32.9	3.8	29.1	26.8	2.3	19.1	13.8	13
28	Chemicals and allied products	2 120.9	774.5	323.4	451.0	374.2	76.8	532.4	242.0	3
29	Petroleum and coal products	2 685.0	2 079.8	328.5	1 751.3	1 713.2	38.1	930.3	1 149.4	6
30	Rubber and miscellaneous plastics products	96.7	71.1	39.9	31.3	24.6	6.7	59.4	11.7	27
31	Leather and leather products	8.5	.9	(Z)	.9	.5	.4	.6	.3	43
32	Stone, clay, and glass products	138.8	93.4	16.0	77.4	60.5	16.9	72.9	20.5	15
33	Primary metal industries	525.7	342.6	69.3	273.4	249.1	24.2	249.5	93.1	5
34	Fabricated metal products	103.3	42.4	9.9	32.5	25.5	6.9	33.8	8.6	7
35	Industrial machinery and equipment	150.3	88.8	19.5	69.3	43.4	25.9	31.2	57.6	7
36	Electronic and other electric equipment	126.6	63.0	27.7	35.3	27.6	7.8	41.1	21.9	6
37	Transportation equipment	281.0	179.4	19.9	159.5	146.1	13.3	131.0	48.4	10
38	Instruments and related products	89.1	52.7	30.8	21.9	17.8	4.1	28.0	24.7	11
39	Miscellaneous manufacturing industries	16.6	10.2	.8	9.4	8.4	1.0	7.3	2.9	7

¹Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons/volatile organic compounds, and lead.

²Excludes Major Group 23, Apparel and Other Textile Products.

Table 4b. Capital Expenditures by Major Groups for the Media Water: 1992

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Major group	Total PACE	Water					Standard error of estimate (PACE) (percent)
			Total	Type of pollutant abated		Abatement technique		
				Hazardous	Nonhazardous	End of line	Production process enhancements	
	All Industries¹	7 866.9	2 509.8	886.5	1 623.3	1 867.9	641.9	3
20	Food and kindred products	316.8	202.6	8.2	194.4	162.3	40.3	7
21	Tobacco products	14.5	(D)	(D)	(D)	(D)	(Z)	15
22	Textile mill products	34.3	18.7	.6	18.1	15.3	3.4	10
24	Lumber and wood products	94.5	18.9	7.8	11.1	10.5	8.4	12
25	Furniture and fixtures	17.9	.8	.2	.6	.3	.5	15
26	Paper and allied products	1 004.6	373.4	61.3	312.1	169.3	204.1	6
27	Printing and publishing	41.8	4.5	3.1	1.4	3.0	1.5	13
28	Chemicals and allied products	2 120.9	1 017.3	390.2	627.1	845.4	172.0	3
29	Petroleum and coal products	2 685.0	492.6	267.2	225.4	391.6	101.0	6
30	Rubber and miscellaneous plastics products	96.7	16.2	3.9	14.3	12.4	5.8	27
31	Leather and leather products	8.5	6.7	.5	6.2	6.4	.3	43
32	Stone, clay, and glass products	138.8	20.2	5.3	14.8	12.0	8.2	15
33	Primary metal industries	525.7	123.5	33.3	90.3	99.3	24.2	5
34	Fabricated metal products	103.3	42.4	23.5	18.9	28.3	14.1	7
35	Industrial machinery and equipment	150.3	31.7	6.0	25.7	16.9	14.8	7
36	Electronic and other electric equipment	126.6	45.6	22.9	22.7	28.9	16.7	6
37	Transportation equipment	281.0	69.2	40.5	28.7	53.0	16.2	10
38	Instruments and related products	89.1	18.8	10.9	7.9	10.1	8.7	11
39	Miscellaneous manufacturing industries	16.6	(D)	(D)	(D)	(D)	1.7	7

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 4c. Capital Expenditures by Major Groups for the Media Solid/Contained Waste: 1992

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	Major group	Total PACE	Solid/contained waste				Standard error of estimate (PACE) (percent)	
			Total	Type of pollutant abated		Abatement technique		
				Hazardous	Nonhazardous	End of line		Production process enhancements
	All industries¹	7 866.9	954.0	333.5	620.4	620.0	334.0	3
20	Food and kindred products	316.8	29.1	1.5	27.6	22.0	7.1	7
21	Tobacco products	14.5	(D)	-	(D)	.5	(D)	15
22	Textile mill products	34.3	3.9	.6	3.3	2.3	1.5	10
24	Lumber and wood products	94.5	24.9	4.7	20.3	13.9	11.0	12
25	Furniture and fixtures	17.9	2.8	.7	2.1	1.8	1.0	15
26	Paper and allied products	1 004.6	234.5	12.9	221.7	133.3	101.2	6
27	Printing and publishing	41.8	4.4	1.1	3.3	2.4	2.0	13
28	Chemicals and allied products	2 120.9	329.1	174.0	155.1	239.7	89.4	3
29	Petroleum and coal products	2 685.0	112.6	60.2	52.3	56.3	56.2	6
30	Rubber and miscellaneous plastics products	96.7	7.3	2.8	4.5	4.3	3.1	27
31	Leather and leather products	8.5	.9	(Z)	.9	.5	.4	43
32	Stone, clay, and glass products	138.8	25.3	2.6	22.7	20.1	5.2	15
33	Primary metal industries	525.7	59.5	12.7	46.9	42.4	17.1	5
34	Fabricated metal products	103.3	18.5	7.4	11.0	12.9	5.6	7
35	Industrial machinery and equipment	150.3	29.8	11.2	18.6	17.3	12.5	7
36	Electronic and other electric equipment	126.6	17.9	10.4	7.5	10.8	7.1	6
37	Transportation equipment	281.0	32.5	19.9	12.6	27.6	4.9	10
38	Instruments and related products	89.1	17.5	9.5	8.1	10.3	7.2	11
39	Miscellaneous manufacturing industries	16.6	(D)	1.3	(D)	1.6	(D)	7

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1992

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	United States¹	7 866.9	4 403.1	2 509.8	954.0	3
20	Food and kindred products	316.8	85.1	202.6	29.1	7
21	Tobacco products	14.5	12.9	(D)	(D)	15
22	Textile mill products	34.3	11.8	18.7	3.9	10
24	Lumber and wood products	94.5	50.7	18.9	24.9	12
25	Furniture and fixtures	17.9	14.3	.8	2.8	15
26	Paper and allied products	1 004.6	396.7	373.4	234.5	6
27	Printing and publishing	41.8	32.9	4.5	4.4	13
28	Chemicals and allied products	2 120.9	774.5	1 017.3	329.1	3
29	Petroleum and coal products	2 685.0	2 079.8	492.6	112.6	6
30	Rubber and miscellaneous plastics products	96.7	71.1	18.2	7.3	27
31	Leather and leather products	8.5	.9	6.7	.9	43
32	Stone, clay, and glass products	138.8	93.4	20.2	25.3	15
33	Primary metal industries	525.7	342.6	123.5	59.5	5
34	Fabricated metal products	103.3	42.4	42.4	18.5	7
35	Industrial machinery and equipment	150.3	88.8	31.7	29.8	7
36	Electronic and other electric equipment	126.6	63.0	45.6	17.9	6
37	Transportation equipment	281.0	179.4	69.2	32.5	10
38	Instruments and related products	89.1	52.7	18.8	17.5	11
39	Miscellaneous manufacturing industries	16.6	10.2	(D)	(D)	7
	Alabama	119.4	54.3	48.2	16.9	7
20	Food and kindred products	4.9	1.8	2.6	.5	50
22	Textile mill products	1.8	.6	1.1	.1	21
24	Lumber and wood products	6.6	.6	.5	5.4	57
26	Paper and allied products	37.0	11.3	17.2	8.5	1
28	Chemicals and allied products	21.7	5.1	15.5	1.1	12
30	Rubber and miscellaneous plastics products	1.1	(D)	(D)	(D)	18
32	Stone, clay, and glass products	2.6	(D)	-	(D)	46
33	Primary metal industries	31.7	21.0	(D)	(D)	11
34	Fabricated metal products	1.7	1.4	.1	.2	44
35	Industrial machinery and equipment	8.6	8.3	.4	-	62
	Alaska	15.3	2.1	11.4	1.8	67
20	Food and kindred products	11.0	-	(D)	(D)	92
26	Paper and allied products	3.8	1.7	(D)	(D)	39
	Arizona	30.8	13.6	16.2	1.1	14
26	Paper and allied products	7.3	.1	7.2	-	45
33	Primary metal industries	(D)	(D)	(D)	(Z)	(X)
34	Fabricated metal products	3.1	1.7	1.4	-	79
36	Electronic and other electric equipment	(D)	(D)	(D)	(Z)	(X)
37	Transportation equipment	2.0	.8	(D)	(D)	16
38	Instruments and related products	1.7	1.3	(D)	(D)	22

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	Arkansas	75.6	28.3	41.2	6.0	16
20	Food and kindred products	(D)	(D)	(D)	(D)	(X)
24	Lumber and wood products	2.3	1.2	.5	.6	18
26	Paper and allied products	25.2	11.9	(D)	(D)	3
28	Chemicals and allied products	24.0	8.1	11.9	4.0	47
29	Petroleum and coal products	3.9	3.9	-	-	99
38	Instruments and related products	(D)	(D)	-	-	(X)
	California	547.9	418.7	88.5	40.7	8
20	Food and kindred products	27.6	11.5	11.1	5.0	16
22	Textile mill products	1.7	.1	1.4	.3	81
24	Lumber and wood products	5.7	(D)	1.0	(D)	1
26	Paper and allied products	12.5	3.6	6.5	2.4	26
27	Printing and publishing	5.1	3.6	.9	.6	26
28	Chemicals and allied products	24.1	8.7	13.6	1.8	15
29	Petroleum and coal products	394.4	352.9	34.0	7.4	10
30	Rubber and miscellaneous plastics products	4.2	3.1	.3	.7	38
32	Stone, clay, and glass products	6.9	5.2	.9	.8	44
33	Primary metal industries	10.7	2.6	2.2	5.9	33
34	Fabricated metal products	6.6	3.1	1.5	2.0	16
35	Industrial machinery and equipment	5.2	(D)	.9	(D)	7
36	Electronic and other electric equipment	17.5	8.6	5.9	3.0	14
37	Transportation equipment	17.7	6.8	6.8	4.1	12
38	Instruments and related products	5.5	3.4	1.0	1.1	20
39	Miscellaneous manufacturing industries	1.8	.8	.4	.6	36
	Colorado	13.7	6.5	5.9	1.2	13
20	Food and kindred products	2.9	(D)	(D)	(D)	2
35	Industrial machinery and equipment	3.3	2.1	1.1	.1	32
37	Transportation equipment	(D)	.8	1.9	(D)	(X)
38	Instruments and related products	(D)	(D)	(D)	(Z)	(X)
	Connecticut	29.3	7.9	13.2	8.2	9
28	Chemicals and allied products	3.6	1.6	1.9	.1	34
32	Stone, clay, and glass products	2.0	.5	1.5	-	73
33	Primary metal industries	1.4	.3	1.0	(Z)	53
34	Fabricated metal products	3.1	2.0	1.0	.1	28
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(X)
37	Transportation equipment	(D)	(D)	(D)	(D)	(X)
	Delaware	59.8	43.9	(D)	(D)	16
28	Chemicals and allied products	(D)	(D)	7.3	(D)	(X)
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(X)
	Florida	105.9	24.5	74.0	7.4	5
20	Food and kindred products	22.1	2.0	19.4	.7	18
26	Paper and allied products	19.4	9.3	6.3	3.8	3
28	Chemicals and allied products	52.5	6.9	44.9	.8	2
32	Stone, clay, and glass products	5.5	3.2	1.7	.6	31
35	Industrial machinery and equipment	1.3	1.2	.1	(Z)	67
36	Electronic and other electric equipment	1.5	.5	.4	.6	24
37	Transportation equipment	1.2	.5	.1	.6	56
	Georgia	173.3	146.9	15.8	10.6	16
20	Food and kindred products	2.7	.8	1.5	.5	11
22	Textile mill products	3.0	1.3	1.1	.5	24
24	Lumber and wood products	2.7	1.6	.9	.2	2
26	Paper and allied products	104.3	96.2	4.3	3.8	11
27	Printing and publishing	1.8	1.7	(Z)	.1	50
28	Chemicals and allied products	17.5	12.6	3.6	1.2	15
30	Rubber and miscellaneous plastics products	27.4	26.1	.6	.7	92
32	Stone, clay, and glass products	4.1	2.5	(D)	(D)	9
33	Primary metal industries	2.3	(D)	(D)	(Z)	10
34	Fabricated metal products	1.8	.2	1.3	.3	40
37	Transportation equipment	2.8	(D)	.1	(D)	10
38	Instruments and related products	1.4	1.0	.2	.2	31
	Hawaii	2.8	.5	2.3	-	53
29	Petroleum and coal products	2.4	.2	2.2	-	61
	Idaho	25.0	14.3	10.3	.4	23
20	Food and kindred products	7.4	.2	(D)	(D)	77
24	Lumber and wood products	1.6	1.6	-	(Z)	25
26	Paper and allied products	(D)	(D)	(Z)	(D)	(X)
28	Chemicals and allied products	(D)	(D)	(D)	(Z)	(X)
	Illinois	350.5	250.1	81.3	19.1	3
20	Food and kindred products	19.6	6.2	11.4	2.0	18
24	Lumber and wood products	(D)	-	(D)	(D)	(X)
26	Paper and allied products	4.0	(D)	(D)	(Z)	55
27	Printing and publishing	3.2	2.5	.3	.3	43
28	Chemicals and allied products	39.2	17.9	16.6	4.7	13
29	Petroleum and coal products	229.9	(D)	34.5	(D)	1
30	Rubber and miscellaneous plastics products	3.3	2.9	.2	.2	41
32	Stone, clay, and glass products	3.0	2.5	(D)	(D)	30
33	Primary metal industries	19.4	13.3	3.9	2.2	21
34	Fabricated metal products	6.4	3.8	1.6	1.0	19
35	Industrial machinery and equipment	14.6	4.8	(D)	(D)	18
36	Electronic and other electric equipment	2.1	.8	1.2	.1	53
38	Instruments and related products	1.8	.3	1.5	-	80
39	Miscellaneous manufacturing industries	(D)	1.4	(D)	(D)	(X)

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	Indiana	330.9	220.6	94.3	16.0	6
20	Food and kindred products	10.6	3.3	6.8	.4	6
25	Furniture and fixtures	2.5	2.3	(D)	(D)	40
26	Paper and allied products	2.8	2.2	(D)	(D)	49
27	Printing and publishing	(D)	(D)	(Z)	.2	(X)
28	Chemicals and allied products	75.9	(D)	41.8	(D)	4
29	Petroleum and coal products	(D)	(D)	26.6	3.1	(X)
30	Rubber and miscellaneous plastics products	4.1	2.9	.6	.6	50
32	Stone, clay, and glass products	5.3	5.3	(Z)	(Z)	19
33	Primary metal industries	53.7	42.2	10.0	1.5	4
34	Fabricated metal products	4.8	1.5	2.8	.5	23
35	Industrial machinery and equipment	6.3	4.9	1.4	(Z)	49
36	Electronic and other electric equipment	3.3	1.4	1.6	.3	41
37	Transportation equipment	7.2	3.4	1.2	2.5	8
38	Instruments and related products	1.5	.2	.8	.6	46
	Iowa	46.9	27.0	14.2	5.7	9
20	Food and kindred products	24.3	15.7	8.1	.4	4
28	Chemicals and allied products	5.3	1.6	2.6	1.2	3
30	Rubber and miscellaneous plastics products	1.4	.8	.1	.5	32
33	Primary metal industries	6.5	4.9	(D)	(D)	50
35	Industrial machinery and equipment	1.2	.1	(D)	(D)	37
36	Electronic and other electric equipment	3.7	.6	1.6	1.5	52
37	Transportation equipment	2.0	1.9	(Z)	(Z)	80
	Kansas	186.1	153.7	23.5	8.9	35
20	Food and kindred products	1.6	.2	1.3	.1	15
28	Chemicals and allied products	17.5	3.5	11.9	2.2	12
29	Petroleum and coal products	148.7	142.3	3.1	3.3	44
30	Rubber and miscellaneous plastics products	(D)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	(D)	(D)	(D)	(D)	(X)
35	Industrial machinery and equipment	1.9	(Z)	1.8	.1	57
37	Transportation equipment	7.1	2.0	2.9	2.2	37
	Kentucky	180.9	132.4	25.7	22.8	6
24	Lumber and wood products	(D)	(D)	(D)	.6	(X)
26	Paper and allied products	19.9	(D)	(D)	10.0	31
27	Printing and publishing	2.1	(D)	(Z)	(D)	1
28	Chemicals and allied products	34.2	9.9	17.5	6.8	25
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	2.9	(D)	.4	(D)	15
33	Primary metal industries	47.6	(D)	(D)	3.4	6
36	Electronic and other electric equipment	1.3	.6	.2	.4	29
37	Transportation equipment	(D)	(D)	(Z)	(Z)	(X)
	Louisiana	1 057.2	477.6	430.8	148.8	2
24	Lumber and wood products	4.1	(D)	2.9	(D)	50
26	Paper and allied products	34.2	14.6	(D)	(D)	1
28	Chemicals and allied products	639.7	166.5	362.4	110.8	3
29	Petroleum and coal products	374.2	293.7	56.4	24.2	2
37	Transportation equipment	3.9	(D)	(D)	-	37
	Maine	62.2	23.8	26.8	11.6	8
26	Paper and allied products	49.9	20.5	18.8	10.6	8
30	Rubber and miscellaneous plastics products	1.3	.3	1.0	.1	43
34	Fabricated metal products	1.9	(Z)	1.8	(Z)	85
35	Industrial machinery and equipment	(D)	(D)	(D)	(D)	(X)
36	Electronic and other electric equipment	2.1	1.1	1.1	-	81
37	Transportation equipment	(D)	(D)	(D)	(D)	(X)
	Maryland	38.1	16.4	16.2	5.5	19
20	Food and kindred products	9.1	1.5	5.6	2.0	57
27	Printing and publishing	4.1	3.6	.1	.4	77
28	Chemicals and allied products	15.0	8.2	4.8	2.0	19
32	Stone, clay, and glass products	(D)	(D)	(D)	(D)	(X)
33	Primary metal industries	4.5	1.7	2.5	.3	30
37	Transportation equipment	(D)	(D)	(D)	(D)	(X)
	Massachusetts	59.5	18.4	35.6	5.5	11
20	Food and kindred products	5.0	(Z)	4.8	.2	77
22	Textile mill products	4.9	1.0	3.8	.1	36
26	Paper and allied products	6.0	(Z)	5.8	.1	65
28	Chemicals and allied products	10.0	1.9	4.8	3.3	23
30	Rubber and miscellaneous plastics products	5.8	5.1	.3	.3	5
33	Primary metal industries	(D)	.6	(D)	.4	(X)
34	Fabricated metal products	4.8	.2	4.3	.3	14
36	Electronic and other electric equipment	4.2	2.9	1.1	.2	22
37	Transportation equipment	(D)	-	(D)	(Z)	(X)
38	Instruments and related products	9.3	5.9	3.1	.3	8
	Michigan	159.3	99.4	37.9	22.0	7
20	Food and kindred products	5.9	1.3	4.0	.6	30
26	Paper and allied products	(D)	1.5	(D)	(D)	(X)
28	Chemicals and allied products	48.1	35.9	6.9	5.2	13
30	Rubber and miscellaneous plastics products	5.3	4.8	.3	.2	84
33	Primary metal industries	33.8	19.1	12.7	2.0	5
34	Fabricated metal products	10.5	(D)	1.4	(D)	8
35	Industrial machinery and equipment	1.4	.5	.4	.4	37
37	Transportation equipment	44.7	31.7	10.8	2.2	15
38	Instruments and related products	(D)	(D)	(D)	(Z)	(X)

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
	Indiana	330.9	220.6	94.3	16.0	6
	Food and kindred products	10.6	3.3	6.8	.4	6
20	Furniture and fixtures	2.5	2.3	(D)	(D)	40
25	Paper and allied products	2.8	2.2	(D)	(D)	49
26	Printing and publishing	(D)	(D)	(Z)	.2	(X)
27	Chemicals and allied products	75.9	(D)	41.8	(D)	4
28	Petroleum and coal products	(D)	(D)	26.6	3.1	(X)
29	Rubber and miscellaneous plastics products	4.1	2.9	.6	.6	50
30	Stone, clay, and glass products	5.3	5.3	(Z)	(Z)	19
32	Primary metal industries	53.7	42.2	10.0	1.5	4
33	Fabricated metal products	4.8	1.5	2.8	.5	23
34	Industrial machinery and equipment	6.3	4.9	1.4	(Z)	49
35	Electronic and other electric equipment	3.3	1.4	1.6	.3	41
36	Transportation equipment	7.2	3.4	1.2	2.5	8
37	Instruments and related products	1.5	.2	.8	.6	46
	Iowa	46.9	27.0	14.2	5.7	9
	Food and kindred products	24.3	15.7	8.1	.4	4
20	Chemicals and allied products	5.3	1.6	2.6	1.2	3
28	Rubber and miscellaneous plastics products	1.4	.8	.1	.5	32
30	Primary metal industries	6.5	4.9	(D)	(D)	50
33	Industrial machinery and equipment	1.2	.1	(D)	(D)	37
35	Electronic and other electric equipment	3.7	.6	1.6	1.5	52
36	Transportation equipment	2.0	1.9	(Z)	(Z)	80
37						
	Kansas	186.1	153.7	23.5	8.9	35
	Food and kindred products	1.6	.2	1.3	.1	15
20	Chemicals and allied products	17.5	3.5	11.9	2.2	12
28	Petroleum and coal products	148.7	142.3	3.1	3.3	44
29	Rubber and miscellaneous plastics products	(D)	(D)	(D)	(D)	(X)
30	Stone, clay, and glass products	(D)	(D)	(D)	(D)	(X)
32	Primary metal industries	1.9	(Z)	1.8	.1	57
35	Industrial machinery and equipment	7.1	2.0	2.9	2.2	37
37	Transportation equipment					
	Kentucky	180.9	132.4	25.7	22.8	6
	Lumber and wood products	(D)	(D)	(D)	.6	(X)
24	Paper and allied products	19.9	(D)	(D)	10.0	31
26	Printing and publishing	2.1	(D)	(Z)	(D)	1
27	Chemicals and allied products	34.2	9.9	17.5	6.8	25
28	Petroleum and coal products	(D)	(D)	(D)	(D)	(X)
29	Stone, clay, and glass products	2.9	(D)	.4	(D)	15
32	Primary metal industries	47.6	(D)	(D)	3.4	6
33	Electronic and other electric equipment	1.3	.6	.2	.4	29
36	Transportation equipment	(D)	(D)	(D)	(Z)	(X)
37						
	Louisiana	1 057.2	477.6	430.8	148.8	2
	Lumber and wood products	4.1	(D)	2.9	(D)	50
24	Paper and allied products	34.2	14.6	(D)	(D)	1
26	Chemicals and allied products	639.7	166.5	362.4	110.8	3
28	Petroleum and coal products	374.2	293.7	56.4	24.2	2
29	Transportation equipment	3.9	(D)	(D)	-	37
37						
	Maine	62.2	23.8	26.8	11.6	8
	Paper and allied products	49.9	20.5	18.8	10.6	8
26	Rubber and miscellaneous plastics products	1.3	.3	1.0	.1	43
30	Fabricated metal products	1.9	(Z)	1.8	(Z)	85
34	Industrial machinery and equipment	(D)	(D)	(D)	(D)	(X)
35	Electronic and other electric equipment	2.1	1.1	1.1	-	81
36	Transportation equipment	(D)	(D)	(D)	(D)	(X)
37						
	Maryland	38.1	16.4	16.2	5.5	19
	Food and kindred products	9.1	1.5	5.6	2.0	57
20	Printing and publishing	4.1	3.6	.1	.4	77
27	Chemicals and allied products	15.0	8.2	4.8	2.0	19
28	Stone, clay, and glass products	(D)	(D)	(D)	(D)	(X)
32	Primary metal industries	4.5	1.7	2.5	.3	30
33	Transportation equipment	(D)	(D)	(D)	(D)	(X)
37						
	Massachusetts	59.5	18.4	35.6	5.5	11
	Food and kindred products	5.0	(Z)	4.8	.2	77
20	Textile mill products	4.9	1.0	3.8	.1	36
22	Paper and allied products	6.0	(Z)	5.8	.1	65
26	Chemicals and allied products	10.0	1.9	4.8	3.3	23
28	Rubber and miscellaneous plastics products	5.8	5.1	.3	.3	5
30	Primary metal industries	(D)	.6	(D)	.4	(X)
33	Fabricated metal products	4.8	.2	4.3	.3	14
34	Electronic and other electric equipment	4.2	2.9	1.1	.2	22
36	Transportation equipment	(D)	(D)	(D)	(Z)	(X)
37	Instruments and related products	9.3	5.9	3.1	.3	8
38						
	Michigan	159.3	99.4	37.9	22.0	7
	Food and kindred products	5.9	1.3	4.0	.6	30
20	Paper and allied products	(D)	1.5	(D)	(D)	(X)
26	Chemicals and allied products	48.1	35.9	6.9	5.2	13
28	Rubber and miscellaneous plastics products	5.3	4.8	.3	.2	84
30	Primary metal industries	33.8	19.1	12.7	2.0	5
33	Fabricated metal products	10.5	(D)	1.4	(D)	8
34	Industrial machinery and equipment	1.4	.5	.4	.4	37
35	Transportation equipment	44.7	31.7	10.8	2.2	15
37	Instruments and related products	(D)	(D)	(D)	(Z)	(X)
38						

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
Minnesota						
	-----	133.1	91.8	29.7	11.6	
20	Food and kindred products	4.4				7
24	Lumber and wood products	1.2	1.1			
26	Paper and allied products	32.2	.7	3.1	.2	33
27	Printing and publishing	2.4	(D)	(D)	(D)	-
28	Chemicals and allied products	2.9	1.6	(Z)	5.9	3
	-----		(D)	1.5	.8	40
29	Petroleum and coal products	(D)			(D)	27
32	Stone, clay, and glass products	(D)	(D)	(D)	(D)	
33	Primary metal industries	1.7	(D)	(D)	.2	(X)
34	Fabricated metal products	1.1	.3	.1	1.4	(X)
35	Industrial machinery and equipment	1.9	.5	.1	.6	32
	-----		1.2	(D)	(D)	25
36	Electronic and other electric equipment	2.7	(D)			44
37	Transportation equipment	25.7	24.3	(D)	1.3	26
38	Instruments and related products	1.1	1.0	(D)	(D)	35
	-----				.1	77
Mississippi						
	-----	112.8	88.3	15.8	8.8	
20	Food and kindred products	1.7				6
24	Lumber and wood products	(D)	(Z)	1.5		
26	Paper and allied products	15.0	.7	(D)	.2	4
28	Chemicals and allied products	30.3	(D)	(D)	(Z)	(X)
29	Petroleum and coal products	(D)	20.8	6.7	5.2	5
33	Primary metal industries	1.3	(D)	.7	2.8	21
36	Electronic and other electric equipment	2.7	1.0	.3	.1	(X)
	-----		1.2	1.4	(Z)	59
	-----				.2	36
Missouri						
	-----	65.2	28.5	25.5	11.2	
20	Food and kindred products	6.6				8
24	Lumber and wood products	(D)	3.0	(D)	(D)	
25	Furniture and fixtures	2.1	(Z)	(D)	(Z)	6
27	Printing and publishing	(D)	2.1	-	(Z)	(X)
28	Chemicals and allied products	27.6	1.2	(D)	(Z)	95
	-----		8.7	12.7	6.2	(X)
32	Stone, clay, and glass products	2.8				13
33	Primary metal industries	8.9	2.4	(D)	(D)	16
34	Fabricated metal products	5.3	6.0	2.4	.6	19
36	Electronic and other electric equipment	4.2	(D)	(D)	(Z)	3
37	Transportation equipment	3.5	3.2	(D)	(D)	42
	-----		(D)	(D)	(D)	-
Montana						
	-----	7.1	2.2	(D)	(D)	9
28	Chemicals and allied products	(D)	(D)	.1		(X)
33	Primary metal industries	(D)	(D)	(D)		(X)

Nebraska						
	-----	8.0	3.7	2.6	1.7	11
20	Food and kindred products	(D)	(D)	1.5		(X)
36	Electronic and other electric equipment	(D)	(D)	.2		(X)

Nevada						
	-----	5.3	2.1	2.5	.8	45
26	Paper and allied products	(D)	1.6	(D)	(D)	(X)
28	Chemicals and allied products	(D)	.3	(D)	(D)	(X)

New Hampshire						
	-----	(D)	(D)	2.2	(D)	(X)
26	Paper and allied products	(D)	(D)	.4	(D)	(X)

New Jersey						
	-----	154.0	65.6	70.3	18.0	12
20	Food and kindred products	17.4				22
26	Paper and allied products	20.2	4.5	12.8	.2	65
28	Chemicals and allied products	57.3	6.1	.4	13.7	16
29	Petroleum and coal products	30.6	10.9	44.1	2.3	19
30	Rubber and miscellaneous plastics products	(D)	24.3	5.9	.4	(X)
	-----		(D)	3.0	.1	5
32	Stone, clay, and glass products	2.6				(X)
33	Primary metal industries	7.4	1.0	1.5	.1	30
34	Fabricated metal products	7.9	7.0	(D)	(D)	11
38	Instruments and related products	2.0	6.8	.7	.3	49
39	Miscellaneous manufacturing industries	(D)	1.6	(D)	(D)	5
	-----		(D)			(X)
New Mexico						
	-----	44.3	36.2	(D)	(D)	70
29	Petroleum and coal products	34.6	34.3	.3	(Z)	90
33	Primary metal industries	(D)	(D)	(D)	(D)	(X)
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(X)
	-----					(X)
New York						
	-----	128.8	72.9	29.0	26.8	8
20	Food and kindred products	7.1				31
26	Paper and allied products	12.3	1.0	5.0	1.1	30
27	Printing and publishing	1.7	1.0	3.6	7.8	31
28	Chemicals and allied products	18.7	1.3	(Z)	.4	19
30	Rubber and miscellaneous plastics products	1.5	(D)	6.7	(D)	27
	-----		.9	.1	.6	
32	Stone, clay, and glass products	4.6				22
33	Primary metal industries	13.2	3.9	.5	.2	28
34	Fabricated metal products	3.3	10.1	1.3	.2	10
35	Industrial machinery and equipment	23.3	2.0	(D)	1.5	4
36	Electronic and other electric equipment	4.9	(D)	(D)	2.1	23
37	Transportation equipment	2.2	1.4	.8	.4	34
38	Instruments and related products	34.2	1.0	(D)	(D)	22
	-----		21.0			
North Carolina						
	-----	259.8	97.3	132.2	30.3	4
20	Food and kindred products	5.8	1.1	3.3		26
21	Tobacco products	10.0	9.6	(D)	1.4	22
22	Textile mill products	11.1	5.6	3.9	1.6	15
24	Lumber and wood products	12.7	11.2	.7	.9	66
25	Furniture and fixtures	3.4	3.2	.1	.1	36

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
North Carolina—Con.						
26	Paper and allied products	(D)	(D)	(D)	4.7	(X)
27	Printing and publishing	4.5	4.3	(Z)	.2	66
28	Chemicals and allied products	50.6	14.8	19.9	16.0	5
30	Rubber and miscellaneous plastics products	3.7	2.2	1.3	.2	20
32	Stone, clay, and glass products	(D)	(D)	3.2	1.0	(X)
33	Primary metal industries	1.3	.3	.8	.2	20
34	Fabricated metal products	1.9	1.1	.4	.4	26
35	Industrial machinery and equipment	2.0	.2	1.3	.5	54
36	Electronic and other electric equipment	3.9	1.1	2.2	.6	11
37	Transportation equipment	1.0	.9	(Z)	(Z)	61
38	Instruments and related products	3.1	.7	(D)	(D)	12
		3.7	1.1	2.2	.3	32
North Dakota						
20	Food and kindred products	3.0	1.0	1.9	-	35
		309.1	142.7	127.4	39.0	5
Ohio						
20	Food and kindred products	10.8	5.6	4.7	.5	32
25	Furniture and fixtures	3.4	(D)	(Z)	(D)	20
26	Paper and allied products	(D)	(D)	(D)	(Z)	(X)
27	Printing and publishing	1.4	1.3	.1	.1	40
28	Chemicals and allied products	64.5	24.3	30.9	9.3	10
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	9.5	7.4	1.1	(D)	24
32	Stone, clay, and glass products	8.5	6.1	1.1	1.3	19
33	Primary metal industries	54.0	18.5	27.7	7.8	14
34	Fabricated metal products	6.1	2.7	2.8	.6	25
35	Industrial machinery and equipment	40.5	(D)	(D)	11.6	5
36	Electronic and other electric equipment	4.3	1.7	2.1	.5	18
37	Transportation equipment	6.8	4.5	1.6	.7	3
		41.1	13.9	10.8	16.4	15
Oklahoma						
26	Paper and allied products	1.0	.2	.7	(Z)	38
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	(D)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	1.1	(D)	(D)	-	3
33	Primary metal industries	3.4	.3	.4	2.7	48
34	Fabricated metal products	1.2	.3	.6	.3	31
		105.8	37.0	63.2	5.6	14
Oregon						
20	Food and kindred products	14.4	.2	14.0	.3	32
24	Lumber and wood products	9.4	6.9	1.4	1.1	16
26	Paper and allied products	43.3	3.3	37.5	2.5	28
28	Chemicals and allied products	1.4	.8	.3	.2	28
33	Primary metal industries	6.9	3.0	3.9	(Z)	7
35	Industrial machinery and equipment	6.1	4.4	1.5	.2	86
36	Electronic and other electric equipment	(D)	(D)	(D)	1.0	(X)
38	Instruments and related products	(D)	(D)	(D)	(Z)	(X)
		272.4	140.5	63.0	68.9	8
Pennsylvania						
20	Food and kindred products	17.9	3.4	6.4	8.0	35
24	Lumber and wood products	3.9	.1	.1	3.7	95
26	Paper and allied products	19.1	(D)	4.3	(D)	10
27	Printing and publishing	2.4	2.2	.1	.1	29
28	Chemicals and allied products	87.2	42.8	21.9	22.5	19
29	Petroleum and coal products	55.6	(D)	11.4	(D)	1
30	Rubber and miscellaneous plastics products	2.7	1.8	.2	.7	32
32	Stone, clay, and glass products	4.6	2.5	1.2	.9	16
33	Primary metal industries	43.9	29.6	8.4	5.8	16
34	Fabricated metal products	6.6	4.2	1.4	1.0	27
35	Industrial machinery and equipment	2.2	1.5	.4	.3	8
36	Electronic and other electric equipment	7.6	3.3	2.6	1.7	21
37	Transportation equipment	(D)	2.0	3.5	(D)	(X)
38	Instruments and related products	(D)	(D)	.5	.6	(X)
39	Miscellaneous manufacturing industries	2.9	(D)	.3	(D)	7
		2.2	.8	1.3	.2	23
Rhode Island						
South Carolina						
22	Textile mill products	8.1	2.1	5.1	.9	14
24	Lumber and wood products	1.3	.3	(D)	(D)	16
26	Paper and allied products	11.9	6.0	5.4	.5	7
28	Chemicals and allied products	69.7	21.5	43.0	5.3	23
30	Rubber and miscellaneous plastics products	3.6	2.7	.8	.1	1
32	Stone, clay, and glass products	3.3	(D)	-	(D)	9
33	Primary metal industries	(D)	1.9	(D)	(D)	(X)
34	Fabricated metal products	6.5	3.8	2.7	(Z)	59
35	Industrial machinery and equipment	6.4	.7	(D)	(D)	10
36	Electronic and other electric equipment	2.9	.7	2.2	(Z)	52
37	Transportation equipment	(D)	(D)	(Z)	(Z)	(X)
		(D)	(D)	1.1	.5	(X)
South Dakota						
24	Lumber and wood products	(D)	(D)	-	.2	(X)
Tennessee						
20	Food and kindred products	5.8	2.0	2.9	.9	17
22	Textile mill products	1.0	(D)	(D)	.1	11
24	Lumber and wood products	9.0	(D)	(D)	(D)	29
26	Paper and allied products	2.1	.8	.7	.6	18
28	Chemicals and allied products	118.0	85.3	21.1	11.6	2

See footnotes at end of table.

Table 5. Capital Expenditures by States and Major Groups for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PACE	Air	Water	Solid/contained waste	Standard error of estimate (PACE) (percent)
Tennessee—Con.						
29	Petroleum and coal products	17.7	16.5	(D)	(D)	54
30	Rubber and miscellaneous plastics products	3.2	1.7	1.5	(D)	1
32	Stone, clay, and glass products	3.0	1.8	1.2	(Z)	68
33	Primary metal industries	13.8	(D)	1.1	(D)	5
34	Fabricated metal products	1.3	.7	.4	.2	31
35	Industrial machinery and equipment	6.6	3.3	1.6	1.7	11
36	Electronic and other electric equipment	1.1	.4	.4	.2	17
37	Transportation equipment	33.3	33.0	.3	.1	66
39	Miscellaneous manufacturing industries	1.4	.1	.6	.7	26
Texas						
20	Food and kindred products	1 446.0	777.2	483.5	185.3	8
24	Lumber and wood products	18.8	11.5	6.4	.9	59
26	Paper and allied products	4.2	1.4	2.3	.4	45
28	Chemicals and allied products	141.0	17.7	41.5	81.8	24
29	Petroleum and coal products	389.6	158.7	185.0	45.9	7
30	Rubber and miscellaneous plastics products	785.8	524.8	227.7	33.3	13
32	Stone, clay, and glass products	4.2	2.3	1.6	.3	33
33	Primary metal industries	28.1	10.8	1.8	15.4	65
34	Fabricated metal products	47.7	36.3	6.5	4.9	7
35	Industrial machinery and equipment	5.9	.9	4.4	.7	15
36	Electronic and other electric equipment	1.6	1.1	.4	.2	12
37	Transportation equipment	9.2	5.7	3.4	.1	31
38	Instruments and related products	(D)	(D)	(D)	.9	(X)
		(D)	(D)	(D)	.2	(X)
Utah						
29	Petroleum and coal products	86.4	74.8	10.0	1.6	49
33	Primary metal industries	48.8	47.1	1.7	-	86
35	Industrial machinery and equipment	(D)	(D)	(D)	(D)	(X)
37	Transportation equipment	2.1	1.9	.1	.1	89
		(D)	(D)	(D)	(D)	(X)
Vermont						
36	Electronic and other electric equipment	13.7	1.5	9.0	3.2	38
37	Transportation equipment	(D)	(D)	(D)	(Z)	(X)
38	Instruments and related products	(D)	(D)	(D)	.2	(X)
		6.2	.2	3.0	2.9	72
Virginia						
20	Food and kindred products	217.6	128.0	65.1	24.4	26
21	Tobacco products	8.4	1.9	6.2	.2	33
24	Lumber and wood products	(D)	(D)	(D)	(D)	(X)
26	Paper and allied products	4.1	3.5	(D)	(D)	72
28	Chemicals and allied products	49.5	(D)	17.3	(D)	3
		41.4	21.1	16.5	3.9	4
29	Petroleum and coal products	67.3	40.6	19.6	7.1	82
30	Rubber and miscellaneous plastics products	1.9	.8	.7	.4	49
33	Primary metal industries	4.3	.9	.3	3.1	44
34	Fabricated metal products	1.2	(Z)	1.0	.2	39
35	Industrial machinery and equipment	2.4	1.0	.9	.5	39
36	Electronic and other electric equipment	(D)	.1	(D)	.4	(X)
37	Transportation equipment	29.7	28.4	.6	.7	30
Washington						
20	Food and kindred products	186.7	101.5	41.5	43.7	14
24	Lumber and wood products	9.3	(Z)	9.2	.1	58
26	Paper and allied products	11.0	(D)	(D)	(D)	9
28	Chemicals and allied products	42.4	24.2	5.4	12.8	29
29	Petroleum and coal products	(D)	(Z)	(D)	(D)	(X)
		36.9	24.4	9.3	3.2	28
32	Stone, clay, and glass products	11.5	9.1	2.3	.1	63
33	Primary metal industries	35.4	27.7	5.5	2.2	49
34	Fabricated metal products	1.0	.4	.5	.1	36
36	Electronic and other electric equipment	3.8	1.3	1.1	1.4	78
37	Transportation equipment	(D)	(D)	5.8	(D)	(X)
West Virginia						
28	Chemicals and allied products	85.1	21.5	33.6	30.0	12
33	Primary metal industries	66.2	11.6	28.8	25.8	10
34	Fabricated metal products	15.1	8.4	2.8	3.8	51
		1.0	1.0	-	(Z)	42
Wisconsin						
20	Food and kindred products	136.9	63.2	52.2	21.5	22
26	Paper and allied products	3.7	.5	2.6	.6	14
27	Printing and publishing	91.5	37.1	37.6	16.9	32
28	Chemicals and allied products	(D)	(D)	.5	(D)	(X)
31	Leather and leather products	5.5	3.5	1.6	.3	14
		5.6	.2	4.9	.5	65
32	Stone, clay, and glass products	(D)	(D)	(D)	.5	(X)
33	Primary metal industries	4.3	3.6	.6	.1	12
34	Fabricated metal products	2.4	.8	1.3	.4	27
35	Industrial machinery and equipment	1.0	.3	.2	.5	18
36	Electronic and other electric equipment	1.8	1.6	.1	.1	16
37	Transportation equipment	7.2	5.1	(D)	(D)	35
38	Instruments and related products	1.3	.2	.3	.8	38
Wyoming						
20	Food and kindred products	11.8	(D)	8.3	(D)	29
28	Chemicals and allied products	4.7	.2	4.5	-	6
29	Petroleum and coal products	4.9	(D)	1.1	(D)	65
		2.0	1.3	.6	-	79

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 6a. Capital Expenditures by States for the Media Air: 1992

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

State	Air								Standard error of estimate (PACE) (percent)
	Total PACE	Type of pollutant abated					Abatement technique		
		Total	Hazardous	Nonhazardous		End of line	Production process enhancements		
				Total	Particulates, etc. ¹			Other	
United States²	7 866.9	4 403.1	959.1	3 444.0	3 033.8	410.4	2 533.7	1 869.5	3
Alabama	119.4	54.3	10.7	43.6	21.2	22.5	45.8	8.5	7
Alaska	15.3	2.1	(D)	(D)	(D)	(Z)	(D)	(D)	67
Arizona	30.8	13.6	1.3	12.2	9.1	3.1	3.3	10.2	14
Arkansas	75.6	28.3	7.2	21.0	12.3	8.7	16.2	12.1	16
California	547.9	418.7	94.6	324.1	311.9	12.3	215.8	202.9	8
Colorado	13.7	6.5	3.3	3.2	1.5	1.7	2.2	4.3	13
Connecticut	29.3	7.9	2.8	5.1	3.8	1.3	5.3	2.6	9
Delaware	59.8	43.9	5.1	38.7	38.1	.6	20.3	23.5	16
Florida	105.9	24.5	1.6	22.9	18.2	4.7	21.6	2.9	5
Georgia	173.3	146.9	36.2	110.7	59.6	51.1	111.8	35.1	16
Hawaii	2.8	.5	-	.5	.5	-	(Z)	.5	53
Idaho	25.0	14.3	(D)	6.2	6.2	(D)	7.9	6.4	23
Illinois	350.5	250.1	15.7	234.4	221.6	12.7	(D)	(D)	3
Indiana	330.9	220.6	25.7	194.9	183.9	11.0	81.9	138.7	6
Iowa	46.9	27.0	1.3	25.7	16.9	8.8	23.4	3.5	9
Kansas	186.1	153.7	4.7	148.9	141.9	7.1	14.2	139.5	35
Kentucky	180.9	132.4	8.7	123.7	119.1	4.6	(D)	(D)	6
Louisiana	1 057.2	477.6	169.4	308.2	288.7	19.5	244.9	232.7	2
Maine	62.2	23.8	11.1	12.7	(D)	(D)	20.2	3.6	8
Maryland	38.1	16.4	1.8	14.6	10.8	3.8	9.6	6.8	19
Massachusetts	59.5	18.4	3.8	14.6	12.9	1.7	9.9	8.5	11
Michigan	159.3	99.4	19.6	79.8	70.5	9.3	61.6	37.8	7
Minnesota	133.1	91.8	3.2	88.6	83.4	5.2	(D)	(D)	7
Mississippi	112.8	88.3	(D)	(D)	72.6	(D)	25.6	62.7	6
Missouri	65.2	28.5	5.3	23.3	21.5	1.8	19.0	9.6	8
Montana	7.1	2.2	(D)	(D)	2.0	(D)	2.2	(Z)	9
Nebraska	8.0	3.7	.4	3.3	2.6	.7	1.5	2.2	11
Nevada	5.3	2.1	.2	1.9	1.9	(Z)	.3	1.8	45
New Hampshire	(D)	(D)	.5	(D)	1.2	(D)	(D)	(D)	(X)
New Jersey	154.0	65.6	19.6	46.0	37.8	8.2	38.0	27.5	12
New Mexico	44.3	36.2	(D)	(D)	(D)	(Z)	15.5	20.7	70
New York	128.8	72.9	33.5	39.4	23.0	16.4	33.5	39.4	8
North Carolina	258.8	97.3	14.7	82.6	50.5	32.1	73.2	24.0	4
North Dakota	3.7	1.1	-	1.1	(Z)	1.1	1.1	-	32
Ohio	309.1	142.7	26.4	116.2	89.5	26.7	95.8	46.8	5
Oklahoma	41.1	13.9	4.5	9.4	9.0	.4	7.8	6.1	15
Oregon	105.8	37.0	16.6	20.4	12.7	7.7	30.6	6.4	14
Pennsylvania	272.4	140.5	39.4	101.1	93.3	7.8	92.1	48.5	8
Rhode Island	2.2	.8	.1	.7	.7	.1	.6	.2	23
South Carolina	119.9	44.1	14.0	30.2	23.1	7.1	32.2	12.0	14
South Dakota	(D)	(D)	(Z)	(D)	(D)	(D)	(D)	(D)	(X)
Tennessee	218.3	163.9	29.5	134.3	115.1	19.2	128.9	34.9	12
Texas	1 446.0	777.2	191.0	586.1	539.9	46.3	521.5	255.7	8
Utah	86.4	74.8	10.7	64.1	(D)	(D)	62.2	12.6	49
Vermont	13.7	1.5	1.2	.3	.3	(Z)	1.1	.4	38
Virginia	217.6	128.0	39.5	88.5	76.9	11.7	97.0	31.1	26
Washington	186.7	101.5	34.1	67.4	65.2	2.2	58.3	43.2	14
West Virginia	85.1	21.5	5.2	16.3	15.3	1.1	17.7	3.9	12
Wisconsin	136.9	63.2	22.7	40.5	32.1	8.4	27.6	35.5	22
Wyoming	11.8	(D)	(D)	4.2	3.7	.5	(D)	3.8	29

¹Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons/volatile organic compounds, and lead.
²Excludes Major Group 23, Apparel and Other Textile Products.

Table 6b. Capital Expenditures by States for the Media Water: 1992

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

State	Water						Standard error of estimate (PACE) (percent)
	Total PACE	Type of pollutant abated			Abatement technique		
		Total	Hazardous	Nonhazardous	End of line	Production process enhancements	
United States¹	7 866.9	2 509.8	886.5	1 623.3	1 867.9	641.9	3
Alabama	119.4	48.2	10.3	37.8	40.9	7.3	7
Alaska	15.3	11.4	(D)	(D)	(D)	(D)	67
Arizona	30.8	16.2	1.6	14.6	10.2	6.0	14
Arkansas	75.6	41.2	.5	40.7	(D)	(D)	16
California	547.9	88.5	32.5	56.0	59.2	29.3	8
Colorado	13.7	5.9	1.0	4.9	1.9	4.1	13
Connecticut	29.3	13.2	8.4	4.8	11.5	1.7	9
Delaware	59.8	(D)	(D)	6.6	7.2	(D)	16
Florida	105.9	74.0	2.5	71.5	71.5	2.4	5
Georgia	173.3	15.8	3.4	12.3	11.0	4.8	16

See footnotes at end of table.

Table 6b. Capital Expenditures by States for the Media Water: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Total PACE	Water					Standard error of estimate (PACE) (percent)
		Total	Type of pollutant abated		Abatement technique		
			Hazardous	Nonhazardous	End of line	Production process enhancements	
Hawaii	2.8	2.3	.9	1.4	2.2	.1	53
Idaho	25.0	10.3	(D)	(D)	9.7	.6	23
Illinois	350.5	81.3	24.0	57.3	59.9	21.4	3
Indiana	330.9	94.3	34.1	60.2	78.3	16.0	6
Iowa	46.9	14.2	3.1	11.2	10.0	4.2	9
Kansas	186.1	23.5	14.2	9.4	7.4	16.1	35
Kentucky	180.9	25.7	17.0	8.7	15.9	9.8	6
Louisiana	1 057.2	430.8	183.8	247.0	383.8	47.0	2
Maine	62.2	26.8	4.0	22.8	10.1	16.7	8
Maryland	38.1	16.2	3.0	13.2	6.1	10.1	19
Massachusetts	59.5	35.6	14.4	21.2	21.8	13.8	11
Michigan	159.3	37.9	14.1	23.9	31.4	6.5	7
Minnesota	133.1	29.7	.9	28.8	28.0	1.7	7
Mississippi	112.8	15.8	5.2	10.6	12.8	3.0	6
Missouri	65.2	25.5	11.0	14.5	19.9	5.6	8
Montana	7.1	(D)	(D)	.2	(D)	.1	9
Nebraska	8.0	2.6	.6	2.1	2.4	.2	11
Nevada	5.3	2.5	.9	1.6	(D)	(D)	45
New Hampshire	17.1	2.2	.7	1.5	1.8	.4	4
New Jersey	154.0	70.3	15.2	55.1	58.7	11.6	12
New Mexico	44.3	(D)	-	(D)	(D)	(D)	70
New York	128.8	29.0	10.3	18.7	20.7	8.3	8
North Carolina	259.8	132.2	10.4	121.8	(D)	(D)	4
North Dakota	3.7	2.2	.2	2.1	2.2	-	32
Ohio	309.1	127.4	27.2	100.2	110.2	17.2	5
Oklahoma	41.1	10.8	3.8	7.0	10.1	.7	15
Oregon	105.8	63.2	41.6	21.6	45.3	17.9	14
Pennsylvania	272.4	63.0	16.5	46.5	42.5	20.5	8
Rhode Island	2.2	1.3	1.1	.1	.4	.9	23
South Carolina	119.9	64.7	11.3	53.4	54.8	9.9	14
South Dakota	4.2	1.1	(D)	(D)	(D)	(D)	19
Tennessee	218.3	33.5	6.4	27.1	27.1	6.4	12
Texas	1 446.0	483.5	284.5	199.0	329.8	153.7	8
Utah	86.4	10.0	.5	9.5	9.5	.6	49
Vermont	13.7	9.0	2.9	6.1	6.8	2.2	38
Virginia	217.6	65.1	28.6	36.5	42.6	22.6	26
Washington	186.7	41.5	16.9	24.6	27.0	14.5	14
West Virginia	85.1	33.6	3.8	29.8	23.6	10.0	12
Wisconsin	136.9	52.2	2.1	50.1	39.0	13.2	22
Wyoming	11.8	6.3	.6	5.6	(D)	(D)	29

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 6c. Capital Expenditures by States for the Media Solid/Contained Waste: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Total PACE	Solid/contained waste					Standard error of estimate (PACE) (percent)
		Total	Type of pollutant abated		Abatement technique		
			Hazardous	Nonhazardous	End of line	Production process enhancements	
United States ¹	7 866.9	954.0	333.5	620.4	620.0	334.0	3
Alabama	119.4	16.9	2.6	14.3	14.2	2.8	7
Alaska	15.3	1.8	.8	1.0	.7	1.1	67
Arizona	30.8	1.1	.7	.4	.2	.9	14
Arkansas	75.6	6.0	2.0	4.1	5.4	.6	16
California	547.9	40.7	20.4	20.3	22.1	18.6	8
Colorado	13.7	1.2	.9	.4	1.0	.2	13
Connecticut	29.3	8.2	7.1	1.1	7.7	.5	9
Delaware	59.8	(D)	(D)	.2	(D)	(D)	16
Florida	105.9	7.4	1.2	6.2	6.2	1.2	5
Georgia	173.3	10.6	3.3	7.4	8.7	1.9	16
Hawaii	2.8	-	-	-	-	-	53
Idaho	25.0	.4	(Z)	-	-	-	23
Illinois	350.5	19.1	9.6	9.5	4.4	-	3
Indiana	330.9	16.0	10.6	5.4	11.3	7.9	6
Iowa	46.9	5.7	2.6	3.1	14.3	1.7	9
Kansas	186.1	8.9	3.9	5.0	2.8	2.9	35
Kentucky	180.9	22.8	4.0	18.8	19.7	3.0	6
Louisiana	1 057.2	148.8	55.2	93.6	128.9	19.9	2
Maine	62.2	11.6	1.9	9.7	8.2	3.3	8
Maryland	38.1	5.5	1.1	4.4	2.4	3.1	19
Massachusetts	59.5	5.5	4.1	1.4	2.7	2.8	11
Michigan	159.3	22.0	4.1	17.9	18.6	3.5	7
Minnesota	133.1	11.6	2.9	8.7	9.3	2.3	7
Mississippi	112.8	8.8	1.9	6.8	4.4	4.4	6
Missouri	65.2	11.2	6.0	5.1	10.0	1.2	8

See footnotes at end of table.

Table 6c. Capital Expenditures by States for the Media Solid/Contained Waste: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Solid/contained waste							Standard error of estimate (PACE) (percent)
	Total PACE	Total	Type of pollutant abated		Abatement technique			
			Hazardous	Nonhazardous	End of line	Production process enhancements		
Montana	7.1	(D)	(Z)	(D)	(D)	(Z)	9	
Nebraska	8.0	1.7	1.5	.2	.3	1.4	11	
Nevada	5.3	.8	—	.8	(D)	(D)	45	
New Hampshire	(D)	(D)	(D)	.1	(D)	(Z)	(X)	
New Jersey	154.0	18.0	1.9	16.2	5.5	12.5	12	
New Mexico	44.3	(D)	(D)	(D)	(D)	.1	70	
New York	126.8	26.8	12.1	14.7	19.7	7.1	8	
North Carolina	259.8	30.3	14.2	16.1	23.4	7.0	4	
North Dakota	3.7	.3	.1	.2	—	.3	32	
Ohio	309.1	39.0	11.9	27.1	33.5	5.5	5	
Oklahoma	41.1	16.4	9.2	7.2	2.3	14.1	15	
Oregon	105.8	5.6	2.6	3.1	4.7	.9	14	
Pennsylvania	272.4	68.9	21.2	47.6	29.4	39.4	8	
Rhode Island	2.2	.2	.1	.1	.1	(Z)	23	
South Carolina	119.9	11.1	2.7	8.4	7.3	3.8	14	
South Dakota	(D)	.5	—	.5	.5	(Z)	(X)	
Tennessee	218.3	21.0	6.8	14.1	13.6	7.4	12	
Texas	1 446.0	185.3	56.9	128.5	92.9	92.4	8	
Utah	86.4	1.6	.3	1.2	1.2	.4	49	
Vermont	13.7	3.2	.2	2.9	1.1	2.0	38	
Virginia	217.6	24.4	6.4	18.0	20.6	3.8	26	
Washington	186.7	43.7	4.7	39.0	(D)	(D)	14	
West Virginia	85.1	30.0	24.8	5.3	(D)	(D)	12	
Wisconsin	136.9	21.5	1.2	20.3	18.9	2.6	22	
Wyoming	11.8	(D)	(Z)	(D)	(D)	(D)	29	

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	All Industries ¹	17 466.4	5 395.0	6 576.9	5 494.4	1 907.3	910.9	331.3	665.0	2
20	Food and kindred products	1 312.0	162.7	835.7	313.6	62.2	19.6	21.8	40.8	3
201	Meat products	222.2	11.1	166.4	44.6	8.9	1.0	4.9	2.9	6
2011	Meat packing plants	65.4	4.4	46.0	14.9	2.5	.2	1.5	.8	11
2013	Sausages and other prepared meats	31.2	.4	20.9	10.0	.8	(Z)	.1	.7	23
2015	Poultry slaughtering and processing	125.5	6.3	99.5	19.7	5.6	.8	3.3	1.5	6
202	Dairy products	146.2	3.9	111.8	30.5	9.2	1.4	.8	7.1	11
2021	Creamery butter	4.0	—	2.5	1.5	(Z)	—	(Z)	(Z)	57
2022	Cheese, natural and processed	49.0	.6	39.5	8.9	6.6	(Z)	.6	6.0	18
2023	Dry, condensed, and evaporated dairy products	12.9	.9	8.0	4.1	.6	.2	.2	.2	17
2024	Ice cream and frozen desserts	14.3	—	11.1	3.2	.2	—	—	.2	48
2026	Fluid milk	66.0	2.4	50.8	12.9	1.9	1.2	.1	.6	14
203	Preserved fruits and vegetables	212.5	5.6	142.5	64.4	13.2	.4	2.7	10.1	8
2032	Canned specialties	23.0	(D)	15.1	(D)	(D)	—	—	(D)	18
2033	Canned fruits and vegetables	77.5	1.2	50.5	25.9	(D)	(D)	.4	4.9	15
2034	Dehydrated fruits, vegetables, and soups	8.2	(D)	4.3	(D)	.1	—	(Z)	.1	34
2035	Pickles, sauces, and salad dressings	23.0	.6	15.3	7.1	.5	(Z)	.1	.3	30
2037	Frozen fruits and vegetables	49.5	1.3	38.2	10.1	4.5	(D)	2.0	(D)	6
2038	Frozen specialties, n.e.c.	31.3	.6	19.0	11.7	.7	(Z)	.1	.5	16
204	Grain mill products	164.7	62.5	69.0	33.2	11.4	7.0	2.4	2.1	6
2041	Flour and other grain mill products	13.7	11.2	1.0	1.5	.9	.8	(Z)	.1	30
2043	Cereal breakfast foods	27.1	10.0	9.2	7.9	2.8	1.4	(Z)	1.4	4
2044	Rice milling	2.8	2.5	.2	.1	.2	.2	—	—	58
2045	Prepared flour mixes and doughs	6.0	—	2.3	2.8	.4	.1	.1	.3	27
2046	Wet corn milling	75.3	26.9	40.9	7.6	6.6	(D)	2.1	(D)	5
2047	Dog and cat food	20.0	1.9	9.6	8.4	.2	(D)	—	(D)	21
2048	Prepared feeds, n.e.c.	19.7	9.2	5.7	4.9	.4	.3	.1	.1	27
205	Bakery products	53.6	3.7	28.2	21.6	3.3	.1	.1	3.1	15
2051	Bread, cake, and related products	32.7	2.2	20.7	9.7	4	(Z)	(Z)	.4	24
2052	Cookies and crackers	17.6	1.5	5.3	10.9	2.7	(Z)	.1	2.6	15
2053	Frozen bakery products, except bread	3.3	(Z)	2.2	1.0	.1	—	(Z)	.1	40
206	Sugar and confectionery products	80.4	14.5	43.0	23.0	1.5	.1	.4	1.0	13
2061	Raw cane sugar	9.6	3.6	3.5	2.6	—	—	—	—	40
2062	Cane sugar refining	7.7	.6	3.9	3.2	(Z)	—	—	(Z)	—
2063	Beet sugar	28.6	6.1	17.2	5.3	(D)	.1	(D)	(Z)	32
2064	Candy and other confectionery products	21.4	2.1	12.6	6.7	.2	(Z)	(D)	.2	10
2066	Chocolate and cocoa products	7.8	1.1	4.2	2.5	(D)	—	(D)	(D)	7
2067	Chewing gum	(D)	(D)	(D)	(D)	(D)	—	—	(D)	(X)
2068	Salted and roasted nuts and seeds	(D)	(D)	(D)	(D)	.5	—	—	.5	(X)
207	Fats and oils	72.3	34.8	28.4	9.1	6.4	(D)	(D)	.9	20
2074	Cottonseed oil mills	11.4	9.2	1.4	.8	—	—	—	—	82
2075	Soybean oil mills	27.0	12.4	10.6	3.9	4.0	(D)	(D)	.4	6
2077	Animal and marine fats and oils	11.4	7.4	3.7	.3	.1	(Z)	(Z)	(Z)	89
2079	Edible fats and oils, n.e.c.	22.1	5.6	12.7	3.8	2.3	.5	1.3	.5	16

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
20	Food and kindred products—Con.									
208	Beverages	231.8	12.3	174.4	45.1	18.2	(D)	(D)	8.6	4
2082	Malt beverages	158.4	8.2	129.8	20.4	(D)	(D)	(D)	4	4
2083	Malt	4.4	(D)	2.6	(D)	(Z)	(Z)	(Z)	25	25
2084	Wines, brandy, and brandy spirits	3.8	.1	1.8	1.9	(Z)	(Z)	(Z)	32	32
2085	Distilled and blended liquors	6.7	1.9	3.5	1.3	(Z)	(Z)	(Z)	36	36
2086	Bottled and canned soft drinks	52.5	.4	32.4	19.7	(Z)	(Z)	(Z)	11	11
2087	Flavoring extracts and syrups, n.e.c.	6.0	(D)	4.3	(D)	(Z)	(Z)	(Z)	12	12
209	Miscellaneous food and kindred products	128.3	14.3	71.9	42.1	10.0	1.7	3.4	5.0	13
2091	Canned and cured fish and seafoods	3.3	.2	1.9	1.2	.7	.1	(Z)	.6	53
2092	Fresh or frozen prepared fish	24.1	1.6	13.5	9.1	.9	.4	(Z)	.2	23
2095	Roasted coffee	17.2	6.3	5.8	5.0	1.9	.9	(Z)	.3	28
2096	Potato chips and similar snacks	22.4	1.8	15.6	4.9	2.6	.2	1.7	.6	12
2098	Macaroni and spaghetti	1.1	.2	.2	.7	(Z)	(Z)	(Z)	.9	13
2099	Food preparations, n.e.c.	60.2	4.1	34.9	21.2	3.7	.1	1.1	2.5	24
21	Tobacco products	33.5	11.2	10.8	11.5	.4	(Z)	(Z)	.3	6
211	Cigarettes	20.1	7.9	5.2	7.1	(D)	(D)	(D)	(D)	8
2111	Cigarettes	20.1	7.9	5.2	7.1	(D)	(D)	(D)	(D)	8
213	Chewing and smoking tobacco	1.1	(D)	(D)	.5	(Z)	(Z)	(Z)	(Z)	32
2131	Chewing and smoking tobacco	1.1	(D)	(D)	.5	(Z)	(Z)	(Z)	(Z)	32
214	Tobacco stemming and redrying	11.5	(D)	(D)	3.5	(D)	(D)	(D)	(D)	7
2141	Tobacco stemming and redrying	11.5	(D)	(D)	3.5	(D)	(D)	(D)	(D)	7
22	Textile mill products	256.2	38.1	152.5	65.7	19.7	2.4	5.4	11.9	4
221	Broadwoven fabrics mills, cotton	34.6	7.6	21.0	6.0	1.6	(Z)	(D)	(D)	7
2211	Broadwoven fabrics mills, cotton	34.6	7.6	21.0	6.0	1.6	(Z)	(D)	(D)	7
222	Broadwoven fabrics mills, manmade fiber and silk	18.8	4.1	8.6	6.1	2.9	.2	.2	2.5	10
2221	Broadwoven fabrics mills, manmade fiber and silk	18.8	4.1	8.6	6.1	2.9	.2	.2	2.5	10
223	Broadwoven fabrics mills, wool	9.6	.5	7.8	1.3	(Z)	(Z)	(Z)	(Z)	9
2231	Broadwoven fabrics mills, wool	9.6	.5	7.8	1.3	(Z)	(Z)	(Z)	(Z)	9
224	Narrow fabrics mills	2.9	.7	1.1	1.1	.2	(Z)	(Z)	(Z)	22
2241	Narrow fabrics mills	2.9	.7	1.1	1.1	.2	(Z)	(Z)	(Z)	22
225	Knitting mills	67.6	7.8	49.0	10.7	4.1	.6	1.2	2.3	10
2251	Women's hosiery, except socks	4.0	.4	2.7	.9	.3	.1	.1	.2	31
2252	Hosiery, n.e.c.	6.5	.5	4.9	1.1	.4	.2	.1	.2	20
2253	Knit outerwear mills	11.2	.8	9.2	1.2	1.5	.1	.8	.6	27
2254	Knit underwear mills	1.7	(Z)	.7	.9	(D)	(Z)	(Z)	(D)	20
2257	Weft knit fabrics mills	29.0	3.3	21.4	4.3	1.6	.1	.1	1.3	16
2258	Lace and warp knit fabrics mills	14.4	2.7	9.8	1.9	(D)	.1	.1	(D)	16
226	Textile finishing, except wool	45.7	4.9	33.6	7.2	1.4	(Z)	(D)	.8	12
2261	Finishing plants, cotton	19.1	1.6	14.6	2.8	.5	(Z)	(Z)	.5	14
2262	Finishing plants, manmade	17.1	2.3	11.5	3.2	.7	(D)	(D)	.3	18
2269	Finishing plants, n.e.c.	9.5	.9	7.4	1.2	.1	(Z)	(Z)	.3	31
227	Carpets and rugs	16.9	1.1	9.3	6.6	.2	(Z)	(Z)	.2	10
2273	Carpets and rugs	16.9	1.1	9.3	6.6	.2	(Z)	(Z)	.2	10
228	Yarn and thread mills	21.5	3.6	9.5	8.3	5.8	.2	3.0	2.6	10
2281	Yarn spinning mills	14.8	3.2	5.9	5.8	2.6	(D)	.1	2.3	13
2282	Throwing and winding mills	3.7	.2	1.7	1.8	(D)	(Z)	(Z)	(D)	16
2284	Thread mills	2.9	.2	1.9	.8	(D)	(Z)	(Z)	(D)	17
229	Miscellaneous textile goods	38.7	7.8	12.5	18.4	3.5	(D)	.2	(D)	10
2295	Coated fabrics, not rubberized	11.0	3.2	2.4	5.4	.8	(D)	(Z)	(D)	21
2296	Tire cord and fabrics	1.7	(D)	(D)	.7	(D)	(D)	(Z)	(D)	5
2297	Nonwoven fabrics	18.0	3.2	7.5	7.4	2.5	.4	.1	2.0	7
2298	Cordage and twine	3.4	(Z)	1.0	2.3	(Z)	(Z)	(Z)	(Z)	77
2299	Textile goods, n.e.c.	4.7	(D)	(D)	2.6	(D)	(Z)	(Z)	(Z)	25
24	Lumber and wood products	243.0	89.3	49.5	104.2	18.3	5.9	3.7	8.7	5
241	Logging	8.1	.5	3.0	4.6	(Z)	(Z)	(Z)	(Z)	11
2411	Logging	8.1	.5	3.0	4.6	(Z)	(Z)	(Z)	(Z)	11
242	Sawmills and planing mills	53.7	18.5	10.9	24.2	7.0	2.2	.5	4.3	9
2421	Sawmills and planing mills, general	41.1	12.4	9.9	18.9	5.3	1.9	.5	2.9	8
2426	Hardwood dimension and flooring mills	12.2	6.1	1.0	5.1	1.7	.3	(Z)	1.4	25
243	Millwork, plywood, and structural members	77.8	32.4	11.0	34.4	4.1	2.0	.4	1.7	13
2431	Millwork	21.4	8.6	2.2	10.6	2.6	1.6	.2	.8	12
2434	Wood kitchen cabinets	14.5	.5	.5	8.4	.3	.1	(Z)	.1	27
2435	Hardwood veneer and plywood	13.9	6.7	1.8	5.3	.4	.2	(Z)	.2	53
2436	Softwood veneer and plywood	21.4	8.8	5.2	7.5	.1	(Z)	(Z)	(Z)	18
2439	Structural wood members, n.e.c.	6.5	2.8	1.2	2.5	.7	.1	.1	.4	36
244	Wood containers	7.3	1.1	.5	5.6	(D)	1.3	(Z)	(D)	15
2441	Nailed wood boxes and shooks	1.0	.7	(Z)	.3	1.6	1.3	(Z)	(D)	56
2448	Wood pallets and skids	4.3	.4	.4	3.5	(D)	(Z)	(Z)	(D)	13
2449	Wood containers, n.e.c.	2.0	(Z)	.2	1.8	(Z)	(Z)	(Z)	(D)	40
245	Wood buildings and mobile homes	14.7	.7	.6	13.4	(D)	(Z)	(Z)	(D)	7
2451	Mobile homes	11.1	.3	.2	10.7	(Z)	(Z)	(Z)	(D)	6
2452	Prefabricated wood buildings	3.5	.4	.4	2.7	(Z)	(Z)	(Z)	(D)	19
249	Miscellaneous wood products	81.5	36.0	23.4	22.1	5.1	.4	2.7	1.9	7
2491	Wood preserving	19.2	1.2	11.5	6.4	.8	(Z)	(D)	(D)	25
2493	Reconstituted wood products	49.7	29.0	10.9	9.7	3.2	(Z)	(D)	(D)	5
2499	Wood products, n.e.c.	12.6	5.8	1.0	5.9	1.1	(Z)	(Z)	(D)	15

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
25	Furniture and fixtures	118.5	43.0	14.3	61.2	10.3	3.6	.6	6.1	6
251	Household furniture	63.8	25.8	5.6	32.4	7.2	2.6	.5	4.2	9
2511	Wood household furniture	46.3	22.3	3.0	21.0	5.1	2.3	.3	2.4	12
2512	Upholstered household furniture	6.9	1.1	.6	5.2	1.7	.1	(Z)	1.6	16
2514	Metal household furniture	4.8	.6	1.3	2.8	.1	(Z)	(Z)	.1	24
2515	Mattresses and bedsprings	2.7	.7	.3	1.6	.2	.1	.1	.1	34
2517	Wood television and radio cabinets	1.3	(D)	(D)	.7	.1	(Z)	-	(Z)	42
2519	Household furniture, n.e.c.	1.8	(D)	(D)	1.1	(Z)	-	-	(Z)	10
252	Office furniture	27.9	12.2	3.4	12.3	2.6	1.0	.1	1.5	12
2521	Wood office furniture	10.6	5.9	.7	4.0	.7	.3	(Z)	.4	23
2522	Office furniture, except wood	17.3	6.3	2.6	8.3	1.9	.7	.1	1.1	13
253	Public building and related furniture	5.0	.5	.8	3.7	.1	(Z)	-	.1	13
2531	Public building and related furniture	5.0	.5	.8	3.7	.1	(Z)	-	.1	13
254	Partitions and fixtures	16.5	3.1	3.2	10.2	.3	(Z)	(Z)	.2	8
2541	Wood partitions and fixtures	5.7	1.8	.3	3.5	.1	-	-	.1	17
2542	Partitions and fixtures, except wood	10.8	1.3	2.9	6.6	.2	(Z)	(Z)	.1	9
259	Miscellaneous furniture and fixtures	5.2	1.3	1.3	2.6	.1	(Z)	(Z)	(Z)	12
2591	Drapery hardware and blinds and shades	2.2	.5	.7	1.0	(Z)	(Z)	-	-	5
2599	Furniture and fixtures, n.e.c.	3.0	.9	.7	1.5	(Z)	(Z)	(Z)	(Z)	21
26	Paper and allied products	1 860.7	535.6	822.7	502.4	254.6	131.7	33.0	89.9	4
261	Pulp mills	291.2	130.0	113.6	47.6	18.0	8.2	1.8	8.0	7
2611	Pulp mills	291.2	130.0	113.6	47.6	18.0	8.2	1.8	8.0	7
262	Paper mills	924.3	213.5	483.1	227.7	129.2	68.6	25.6	34.9	6
2621	Paper mills	924.3	213.5	483.1	227.7	129.2	68.6	25.6	34.9	6
263	Paperboard mills	377.7	125.8	166.8	85.1	49.2	39.0	4.3	6.0	5
2631	Paperboard mills	377.7	125.8	166.8	85.1	49.2	39.0	4.3	6.0	5
265	Paperboard containers and boxes	93.0	15.6	20.3	57.0	36.1	5.6	.3	30.2	10
2652	Setup paperboard boxes	1.7	.4	.2	1.1	-	-	-	-	44
2653	Corrugated and solid fiber boxes	41.2	.5	14.8	25.9	16.3	(Z)	.1	16.1	15
2655	Fiber cans, drums, and similar products	5.0	.4	.4	4.2	.3	.1	.1	.1	36
2656	Sanitary food containers	4.1	.2	1.0	2.9	2.0	(Z)	(Z)	2.0	17
2657	Folding paperboard boxes	41.0	14.1	4.0	22.9	17.5	5.5	.1	11.9	15
267	Miscellaneous converted paper products	174.5	50.6	39.0	84.9	22.1	10.2	1.0	10.9	9
2671	Paper coated and laminated, packaging	28.3	10.8	6.6	11.0	1.8	1.8	(Z)	1.7	22
2672	Paper coated and laminated, n.e.c.	45.0	16.7	8.8	19.5	9.8	8.5	.1	1.3	15
2673	Bags: plastics, laminated, and coated	19.0	5.0	4.1	9.9	2.1	.2	.2	1.8	20
2674	Bags: uncoated paper and multiwall	4.9	.6	1.2	3.1	(D)	-	-	(D)	31
2675	Die-cut paper and board	7.4	1.4	1.4	4.6	1.5	.4	.2	.9	30
2676	Sanitary paper products	43.8	12.5	11.4	19.9	(D)	(Z)	.1	(D)	22
2677	Envelopes	7.6	.9	1.3	5.3	.6	.3	.2	.1	26
2678	Stationery products	4.1	.5	.8	2.8	1.0	.1	.1	.8	32
2679	Converted paper products, n.e.c.	14.4	2.3	3.4	8.7	2.0	.7	.1	1.2	22
27	Printing and publishing	239.0	85.6	36.5	117.0	47.9	14.3	2.3	31.4	4
271	Newspapers	31.9	2.2	8.9	20.8	3.4	-	.2	3.2	16
2711	Newspapers	31.9	2.2	8.9	20.8	3.4	-	.2	3.2	16
272	Periodicals	3.3	1.9	.2	1.2	.9	(Z)	(Z)	.8	52
2721	Periodicals	3.3	1.9	.2	1.2	.9	(Z)	(Z)	.8	52
273	Books	17.2	3.9	2.8	10.5	5.6	(D)	(D)	4.0	6
2731	Book publishing	2.7	.3	.9	1.5	(D)	(Z)	(Z)	(D)	13
2732	Book printing	14.5	3.6	1.9	9.0	(D)	(D)	(D)	(D)	6
274	Miscellaneous publishing	1.5	.2	.3	1.0	.3	(Z)	(Z)	.2	11
2741	Miscellaneous publishing	1.5	.2	.3	1.0	.3	(Z)	(Z)	.2	11
275	Commercial printing	148.7	73.7	16.2	58.8	28.8	12.5	1.2	15.2	5
2752	Commercial printing, lithographic	92.3	40.9	8.2	43.3	19.2	5.1	1.0	13.1	6
2754	Commercial printing, gravure	35.8	25.6	4.6	5.7	8.4	7.1	(Z)	1.3	5
2759	Commercial printing, n.e.c.	20.6	7.3	3.5	9.8	1.2	.3	.2	.7	14
276	Manifold business forms	16.2	1.0	3.3	11.8	5.5	.1	.3	5.1	10
2761	Manifold business forms	16.2	1.0	3.3	11.8	5.5	.1	.3	5.1	10
277	Greeting cards	4.6	.3	.6	3.7	(D)	(Z)	(Z)	(D)	15
2771	Greeting cards	4.6	.3	.6	3.7	(D)	(Z)	(Z)	(D)	15
278	Blankbooks and bookbinding	4.9	.4	.5	4.0	(D)	(Z)	(Z)	(D)	12
2782	Blankbooks and looseleaf binders	3.1	(Z)	.4	2.6	(D)	-	-	(D)	9
2789	Bookbinding and related work	1.9	.4	.2	1.3	.2	(Z)	-	.2	27
279	Printing trade services	10.8	1.9	3.7	5.2	.9	(D)	(D)	.3	22
2796	Platemaking services	10.0	1.8	3.5	4.7	.8	(D)	(D)	.3	23
28	Chemicals and allied products	4 425.1	1 026.9	1 946.8	1 451.3	511.2	198.3	130.6	182.3	3
281	Industrial inorganic chemicals	700.6	161.8	286.5	252.3	83.1	24.9	48.3	10.0	5
2812	Alkalies and chlorine	72.5	15.8	32.5	24.1	19.6	6.1	(D)	(D)	2
2813	Industrial gases	23.6	13.1	7.8	2.7	.4	(D)	(Z)	(D)	3
2816	Inorganic pigments	132.7	26.5	69.1	37.0	14.1	(D)	(D)	(D)	3
2819	Industrial inorganic chemicals, n.e.c.	471.7	106.2	177.1	188.4	49.0	17.0	30.2	1.6	8
282	Plastics materials and synthetics	802.7	219.7	329.1	254.0	107.4	42.1	34.3	30.9	4
2821	Plastics materials and resins	551.9	152.0	220.0	179.8	83.2	28.0	(D)	(D)	5
2822	Synthetic rubber	110.9	34.6	38.8	37.6	(D)	(D)	(Z)	(D)	4
2823	Cellulosic manmade fibers	55.3	(D)	30.3	(D)	(D)	(D)	(D)	(D)	3
2824	Organic fibers, noncellulosic	84.6	(D)	40.0	(D)	12.3	(D)	(D)	5.3	4
283	Drugs	338.3	64.8	138.4	135.1	19.7	.9	3.4	15.5	5
2833	Medicinals and botanicals	132.1	25.3	61.6	44.2	6.5	(D)	(D)	(D)	6
2834	Pharmaceutical preparations	190.1	36.9	71.3	81.8	12.7	(D)	(D)	11.3	6
2835	Diagnostic substances	8.6	1.1	1.9	5.6	.4	(Z)	(D)	(D)	9
2836	Biological products, except diagnostic	7.5	.5	3.6	3.4	(Z)	(Z)	-	(Z)	15

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
28	Chemicals and allied products—Con.									
284	Soaps, cleaners, and toilet goods	142.5	26.2	64.9	51.3	10.3	5.3	1.4	3.6	5
2841	Soap and other detergents	59.9	13.3	29.0	17.6	5.8	(D)	1.2	(D)	6
2842	Polishes and sanitation goods	10.5	.6	5.1	4.7	.2	(Z)	(Z)	.2	19
2843	Surface active agents	45.5	11.0	21.4	13.2	3.6	1.9	.2	1.5	9
2844	Toilet preparations	26.5	1.4	9.4	15.8	.7	(D)	(Z)	(D)	10
285	Paints and allied products	81.0	12.4	16.7	52.0	11.2	.9	1.0	9.3	6
2851	Paints and allied products	81.0	12.4	16.7	52.0	11.2	.9	1.0	9.3	6
286	Industrial organic chemicals	1 783.7	405.8	862.2	515.6	143.9	69.2	26.9	47.8	6
2861	Gum and wood chemicals	9.1	3.8	3.7	1.6	.5	(D)	(D)	(Z)	12
2865	Cyclic crudes and intermediates	318.5	72.7	158.9	87.0	38.8	(D)	(D)	6.9	4
2869	Industrial organic chemicals, n.e.c.	1 456.0	329.4	699.6	427.0	104.6	48.4	15.4	40.9	8
287	Agricultural chemicals	359.4	90.4	162.6	106.4	71.1	50.1	12.3	8.6	2
2873	Nitrogenous fertilizers	34.5	13.5	16.8	4.3	5.2	4.2	.9	.1	5
2874	Phosphatic fertilizers	99.9	40.0	28.9	30.9	19.3	13.9	4.8	.6	1
2875	Fertilizers, mixing only	3.1	1.8	.5	.8	(D)	(D)	(Z)	.1	15
2879	Agricultural chemicals, n.e.c.	222.0	35.1	116.5	70.4	(D)	(D)	6.6	7.8	3
289	Miscellaneous chemical products	216.9	45.8	86.3	84.8	64.5	4.9	3.0	56.6	5
2891	Adhesives and sealants	37.0	8.0	10.3	18.6	.9	(D)	(D)	.7	10
2892	Explosives	23.7	2.1	10.4	11.3	.5	.1	.2	.2	7
2893	Printing ink	9.7	1.9	1.9	5.9	.5	.1	.2	.2	18
2895	Carbon black	17.5	13.1	1.6	2.7	3.0	2.6	.5	(Z)	29
2899	Chemical preparations, n.e.c.	129.1	20.7	62.1	46.3	59.6	(D)	(D)	55.5	6
29	Petroleum and coal products	2 585.4	1 428.9	742.8	413.7	475.9	352.9	76.6	46.4	4
291	Petroleum refining	2 526.1	1 404.4	729.9	391.8	471.0	349.1	76.1	45.8	4
2911	Petroleum refining	2 526.1	1 404.4	729.9	391.8	471.0	349.1	76.1	45.8	4
295	Asphalt paving and roofing materials	34.5	15.6	4.2	14.7	3.2	(D)	(D)	.3	7
2951	Asphalt paving mixtures and blocks	7.9	5.1	1.3	1.5	.6	.5	(Z)	.1	22
2952	Asphalt felts and coatings	26.6	10.5	2.9	13.2	2.5	(D)	(D)	.2	6
299	Miscellaneous petroleum and coal products	24.8	8.9	8.7	7.2	1.7	(D)	(D)	.3	10
2992	Lubricating oils and greases	17.8	3.4	7.7	6.7	1.5	(D)	(D)	.1	12
2999	Petroleum and coal products, n.e.c.	7.0	5.4	1.0	.6	.2	(Z)	(Z)	.2	18
30	Rubber and miscellaneous plastics products	379.6	105.7	73.3	200.5	26.7	8.8	2.1	15.8	5
301	Tires and inner tubes	40.0	11.2	6.7	22.0	6.3	2.1	.4	3.7	8
3011	Tires and inner tubes	40.0	11.2	6.7	22.0	6.3	2.1	.4	3.7	8
302	Rubber and plastics footwear	1.8	.1	.5	1.2	(D)	(Z)	(Z)	(D)	29
3021	Rubber and plastics footwear	1.8	.1	.5	1.2	(D)	(Z)	(Z)	(D)	29
305	Hose and belting and gaskets and packing	17.3	3.5	3.9	9.9	(D)	(D)	.1	(D)	6
3052	Rubber and plastics hose and belting	10.1	2.2	2.3	5.6	.8	(D)	.1	(D)	6
3053	Gaskets, packing, and sealing devices	7.2	1.3	1.6	4.3	(D)	(D)	(Z)	.1	11
306	Fabricated rubber products, n.e.c.	51.6	13.1	14.2	24.3	2.4	(D)	.1	(D)	10
3061	Mechanical rubber goods	17.4	1.9	4.3	11.2	.4	(Z)	(Z)	.4	9
3069	Fabricated rubber products, n.e.c.	34.1	11.1	9.9	13.1	2.0	(D)	.1	(D)	15
308	Miscellaneous plastics products, n.e.c.	268.9	77.8	48.1	143.1	16.0	4.7	1.5	9.8	6
3081	Unsupported plastics film and sheet	58.9	23.8	13.2	21.9	4.7	.6	.2	4.0	12
3082	Unsupported plastics profile shapes	8.6	2.0	1.9	4.8	.5	.1	(Z)	.4	38
3083	Laminated plastics plate, sheet, and profile shapes	19.6	10.1	2.1	7.4	3.5	2.9	-	.6	20
3084	Plastics pipe	8.3	2.0	1.4	4.8	.3	.1	.1	.1	37
3085	Plastics bottles	5.5	.7	1.1	3.8	.3	.1	.1	.1	24
3086	Plastics foam products	38.6	16.7	4.7	17.2	1.1	.5	(Z)	.6	21
3087	Custom compounding of purchased plastics resins	12.9	2.1	3.1	7.7	1.3	-	.7	.6	18
3088	Plastics plumbing fixtures	2.4	(Z)	.2	2.1	-	-	-	-	14
3089	Plastics products, n.e.c.	114.2	20.4	20.4	73.4	4.3	.4	.5	3.4	7
31	Leather and leather products	53.5	3.7	30.6	19.2	1.1	.3	.7	.2	13
311	Leather tanning and finishing	46.0	2.9	29.1	13.9	1.0	.2	.7	.1	15
3111	Leather tanning and finishing	46.0	2.9	29.1	13.9	1.0	.2	.7	.1	15
314	Footwear, except rubber	4.7	.4	1.0	3.3	.1	(Z)	(Z)	.1	19
3143	Men's footwear, except athletic	2.7	.2	.6	2.0	.1	-	-	.1	25
3144	Women's footwear, except athletic	1.4	.2	.2	.9	(Z)	-	(Z)	(Z)	36
317	Handbags and personal leather goods	1.4	.1	.3	1.0	(Z)	(Z)	-	-	42
3171	Women's handbags and purses	1.2	.1	.3	.8	(Z)	(Z)	-	-	48
32	Stone, clay, and glass products	491.2	248.5	94.6	148.1	90.3	39.4	3.9	47.1	4
321	Flat glass	13.6	5.7	2.9	5.6	.4	(Z)	-	.4	11
3211	Flat glass	13.6	5.7	2.9	5.6	.4	(Z)	-	.4	11
322	Glass and glassware, pressed or blown	68.0	18.7	21.2	28.1	7.7	1.4	1.4	4.9	3
3221	Glass containers	21.1	4.8	5.7	10.6	.8	.1	.3	.4	7
3229	Pressed and blown glass, n.e.c.	46.8	13.9	15.5	17.4	6.8	1.2	1.1	4.6	3
323	Products of purchased glass	35.7	7.1	14.0	14.6	1.4	(D)	(D)	.8	14
3231	Products of purchased glass	35.7	7.1	14.0	14.6	1.4	(D)	(D)	.8	14
324	Cement, hydraulic	123.2	106.6	4.1	12.4	31.5	28.1	.4	3.0	6
3241	Cement, hydraulic	123.2	106.6	4.1	12.4	31.5	28.1	.4	3.0	6
325	Structural clay products	20.7	9.5	3.5	7.7	1.2	.3	.1	.9	8
3251	Brick and structural clay tile	5.4	3.3	.5	1.7	(D)	(Z)	(Z)	(D)	9
3253	Ceramic wall and floor tile	7.9	1.4	2.5	4.0	(Z)	(Z)	(Z)	(Z)	5
3255	Clay refractories	5.7	3.2	.6	1.9	(D)	.3	(Z)	(D)	16
3259	Structural clay products, n.e.c.	1.8	1.6	(Z)	.2	-	-	-	-	69
326	Pottery and related products	18.2	3.6	5.8	8.9	2.6	(D)	(D)	2.1	9
3261	Vitreous plumbing fixtures	5.4	.9	2.2	2.3	(D)	(Z)	(D)	(Z)	19
3262	Vitreous china table and kitchenware	3.8	.3	1.5	1.9	(D)	(Z)	(Z)	(D)	14
3264	Porcelain electrical supplies	6.0	1.8	1.2	3.0	(D)	(Z)	(Z)	(D)	16
3269	Pottery products, n.e.c.	3.1	.6	.9	1.6	(D)	.1	(Z)	(D)	17

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)	
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste		
32	Stone, clay, and glass products—Con.										
327	Concrete, gypsum, and plaster products	75.4	32.7	15.4	27.3	38.5	5.3	.3	32.8		9
3271	Concrete block and brick	2.7	.9	.7	1.0	.2	.1	(Z)	.1		34
3272	Concrete products, n.e.c.	12.4	1.7	1.2	9.4	.1	.1	-	.1		17
3273	Ready-mixed concrete	25.0	9.0	9.2	6.8	33.6	3.9	.1	29.7		14
3274	Lime	18.5	14.7	1.6	2.2	.1	.1	(Z)	(Z)		23
3275	Gypsum products	16.9	6.3	2.8	7.8	4.4	1.2	.2	3.0		12
328	Cut stone and stone products	3.3	1.0	1.0	1.3	.1	.1	-	(Z)		42
3281	Cut stone and stone products	3.3	1.0	1.0	1.3	.1	.1	-	(Z)		42
329	Miscellaneous nonmetallic mineral products	133.2	63.6	27.4	42.2	7.1	4.0	1.0	2.1		8
3291	Abrasive products	19.1	3.7	5.7	9.7	.4	.1	-	.3		9
3292	Asbestos products	1.5	.7	.1	.7	-	-	-	-		31
3295	Minerals, ground or treated	19.7	10.5	5.0	4.2	.1	(Z)	.1	(Z)		29
3296	Mineral wool	74.9	39.8	14.0	21.1	5.5	3.8	.6	1.2		10
3297	Nonclay refractories	13.7	6.2	2.3	5.3	.9	.1	.3	.5		24
3299	Nonmetallic mineral products, n.e.c.	4.2	2.7	.3	1.2	.1	-	-	.1		48
33	Primary metal industries	1 993.4	933.1	575.0	485.3	164.2	106.3	13.2	44.7		3
331	Blast furnace and basic steel products	1 047.3	453.4	358.6	235.3	39.3	7.9	8.7	22.7		5
3312	Blast furnaces and steel mills	910.4	409.7	309.1	191.6	28.5	5.1	5.2	18.2		5
3313	Electrometallurgical products	47.2	35.3	5.1	6.8	2.9	2.6	(D)	(D)		28
3315	Steel wire and related products	23.8	2.5	10.4	10.9	.8	.1	.3	.3		20
3316	Cold finishing of steel shapes	38.1	3.8	23.2	11.0	6.1	(Z)	(D)	(D)		7
3317	Steel pipe and tubes	27.9	2.2	10.8	14.9	.9	(Z)	(D)	(D)		17
332	Iron and steel foundries	245.3	118.0	45.5	81.8	8.0	2.0	1.5	4.5		4
3321	Gray and ductile iron foundries	197.4	100.0	38.4	58.9	3.7	(D)	(D)	1.3		5
3322	Malleable iron foundries	8.3	3.8	1.5	3.0	.1	(Z)	(Z)	(Z)		12
3324	Steel investment foundries	11.8	3.6	3.2	5.0	1.2	(D)	(D)	.5		5
3325	Steel foundries, n.e.c.	27.8	10.7	2.3	14.8	3.1	.4	.1	2.6		12
333	Primary nonferrous metals	374.3	264.5	53.7	56.1	100.6	92.6	(D)	(D)		5
3331	Primary copper	119.8	103.9	(D)	(D)	(D)	(D)	-	-		9
3334	Primary aluminum	174.7	115.9	20.8	38.0	72.5	71.4	(D)	(D)		5
3339	Primary nonferrous metals, n.e.c.	79.7	44.7	(D)	(D)	(D)	(D)	.1	(D)		16
334	Secondary nonferrous metals	79.3	44.9	21.9	12.5	1.2	(D)	.1	(D)		8
3341	Secondary nonferrous metals	79.3	44.9	21.9	12.5	1.2	(D)	.1	(D)		8
335	Nonferrous rolling and drawing	182.1	37.3	72.4	72.4	10.6	2.4	.9	7.3		7
3351	Copper rolling and drawing	41.4	7.7	17.0	16.6	1.7	.6	.1	.9		12
3353	Aluminum sheet, plate, and foil	56.4	17.3	21.0	18.1	3.7	.7	.4	2.6		8
3354	Aluminum extruded products	19.3	2.1	9.4	7.8	.5	(Z)	(Z)	.4		25
3355	Nonferrous rolling and drawing, n.e.c.	38.0	5.9	18.1	14.0	1.3	.2	.1	1.1		22
3357	Nonferrous wiredrawing and insulating	26.2	4.2	6.6	15.5	3.4	.9	.2	2.3		14
336	Nonferrous foundries (castings)	45.2	8.9	15.3	21.1	3.8	.3	.9	2.5		11
3363	Aluminum die-castings	16.8	3.0	7.4	6.5	1.2	.1	.7	.4		4
3364	Nonferrous die-castings, except aluminum	(D)	(D)	(D)	(D)	.2	.1	.1	(Z)		(X)
3365	Aluminum foundries	13.2	3.5	3.5	6.2	2.1	.1	.2	1.8		13
3366	Copper foundries	7.2	1.5	.3	5.4	(D)	(Z)	(Z)	(D)		61
3369	Nonferrous foundries, n.e.c.	(D)	(D)	(D)	(D)	(D)	(Z)	(Z)	(D)		(X)
339	Miscellaneous primary metal products	19.9	6.0	7.7	6.2	.7	(D)	(D)	.5		14
3398	Metal heat treating	7.4	.6	3.9	2.9	.2	(Z)	.1	.1		11
3399	Primary metal products, n.e.c.	12.4	5.4	3.8	3.3	.5	(D)	(D)	.3		21
34	Fabricated metal products	761.2	130.4	284.3	346.6	45.4	3.8	15.1	26.5		4
341	Metal cans and shipping containers	71.3	21.8	24.4	25.1	(D)	.5	.6	(D)		6
3411	Metal cans	59.2	15.9	22.7	20.5	1.5	.3	.5	.7		5
3412	Metal barrels, drums, and pails	12.2	6.0	1.7	4.5	(D)	.2	.1	(D)		21
342	Cullery, handtools, and hardware	67.6	11.0	28.5	28.1	2.9	.1	.7	2.0		8
3421	Cullery	4.0	1.0	.6	2.4	(Z)	(Z)	(Z)	(Z)		27
3423	Hand and edge tools, n.e.c.	14.0	1.9	5.3	6.7	.8	(Z)	.5	.3		23
3425	Saw blades and handsaws	2.0	.3	.6	1.1	.2	-	-	.2		38
3429	Hardware, n.e.c.	47.6	7.8	21.9	17.9	1.9	.1	.2	1.6		9
343	Plumbing and heating, except electric	27.0	7.9	8.5	10.5	1.0	.1	.4	.6		7
3431	Metal sanitary ware	8.2	(D)	(D)	2.1	.2	.1	(Z)	(Z)		12
3432	Plumbing fixture fittings and trim	14.0	2.4	6.0	5.6	.5	(Z)	.3	.2		9
3433	Heating equipment, except electric	4.8	(D)	(D)	2.7	.3	(Z)	(Z)	.3		11
344	Fabricated structural metal products	100.0	18.8	28.3	52.9	1.9	.3	.3	1.3		14
3441	Fabricated structural metal	12.0	2.1	3.3	6.5	.1	(Z)	-	.1		24
3442	Metal doors, sash, and trim	13.1	1.2	2.7	9.2	.3	(Z)	(Z)	.2		33
3443	Fabricated plate work (boiler shops)	18.5	2.9	5.9	9.6	.1	(Z)	(Z)	(Z)		20
3444	Sheet metal work	36.8	9.2	9.6	18.0	.2	(Z)	.1	.1		30
3446	Architectural metal work	5.1	1.4	1.8	2.0	.5	.2	.2	.2		56
3448	Prefabricated metal buildings	4.5	.7	1.1	2.7	.6	(Z)	-	.5		36
3449	Miscellaneous metal work	10.0	1.2	3.9	4.9	.2	(Z)	.1	.2		30
345	Screw machine products, bolts, etc.	27.2	3.4	12.3	11.5	3.1	.3	.6	2.1		8
3451	Screw machine products	7.3	1.6	2.8	3.0	2.0	.2	.4	1.4		21
3452	Bolts, nuts, rivets, and washers	19.9	1.8	9.6	8.6	1.1	.1	.3	.7		8
346	Metal forgings and stampings	83.8	12.2	34.7	36.9	2.5	.1	1.0	1.3		9
3462	Iron and steel forgings	11.7	1.8	4.7	5.2	.5	(Z)	.4	(Z)		21
3463	Nonferrous forgings	5.9	1.9	1.3	2.7	-	-	-	-		24
3465	Automotive stampings	42.6	3.7	19.1	19.8	1.3	.1	.6	.6		9
3466	Crowns and closures	2.1	1.5	(Z)	.5	.7	-	-	.7		83
3469	Metal stampings, n.e.c.	21.5	3.3	9.5	8.7	-	(Z)	-	-		24
347	Metal services, n.e.c.	168.3	26.9	88.3	53.0	20.6	.9	10.4	9.2		7
3471	Plating and polishing	122.6	9.9	74.0	38.6	4.4	.5	3.0	1.0		8
3479	Metal coating and allied services	45.7	17.0	14.3	14.4	16.1	.4	7.5	8.3		13
348	Ordnance and accessories, n.e.c.	113.3	8.7	31.1	73.5	(D)	(D)	.3	(D)		14
3482	Small arms ammunition	26.0	1.4	8.1	16.4	.2	(Z)	(Z)	.2		27
3483	Ammunition, except for small arms, n.e.c.	39.9	3.3	13.4	23.2	.2	-	-	-		22
3484	Small arms	8.0	1.1	2.5	4.4	.4	-	-	(D)		18
3489	Ordnance and accessories, n.e.c.	39.5	2.9	7.1	29.5	.8	.2	.2	.5		23

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
34	Fabricated metal products—Con.									
3499	Miscellaneous fabricated metal products	102.7	19.5	28.2	55.0	4.3	1.1	.7	2.4	12
3491	Industrial valves	24.1	5.2	9.2	9.7	1.1	(Z)	.1	1.0	19
3492	Fluid power valves and hose fittings	7.0	.4	2.7	3.9	.3	(Z)	.1	.2	29
3494	Valves and pipe fittings, n.e.c.	14.3	4.4	2.8	7.2	.4	(Z)	.1	.2	26
3495	Wire springs	4.9	.4	.7	3.8	.1	(Z)	(Z)	.1	45
3496	Miscellaneous fabricated wire products	4.6	.3	2.1	2.1	.1	(Z)	(Z)	(Z)	39
3497	Metal foil and leaf	10.3	3.8	1.3	5.2	(D)	(D)	(Z)	(D)	25
3498	Fabricated pipe and fittings	14.4	1.1	2.5	10.8	(D)	(D)	.1	(D)	56
3499	Fabricated metal products, n.e.c.	22.3	3.6	6.7	12.0	.6	.2	.2	.2	25
35	Industrial machinery and equipment	463.7	65.4	160.5	237.9	32.2	5.8	4.7	21.6	4
351	Engines and turbines	53.8	10.9	22.3	20.6	2.5	.1	.2	2.2	6
3511	Turbines and turbine generator sets	15.6	1.7	5.7	8.2	.7	(Z)	.2	.5	9
3519	Internal combustion engines, n.e.c.	38.2	9.1	16.6	12.5	1.8	(Z)	.1	1.7	8
352	Farm and garden machinery	32.8	4.5	13.9	14.5	4.7	.2	1.9	2.5	10
3523	Farm machinery and equipment	21.7	3.7	9.1	8.8	4.3	.1	1.9	2.2	12
3524	Lawn and garden equipment	11.1	.7	4.8	5.6	.4	.1	(Z)	.3	16
353	Construction and related machinery	52.4	11.9	14.2	26.3	3.3	.7	.4	2.3	10
3531	Construction machinery	33.0	8.9	10.1	14.0	2.6	.5	.3	1.8	10
3532	Mining machinery	3.7	.2	.6	2.9	.1	(Z)	-	.1	27
3533	Oil and gas field machinery	2.6	.4	.9	1.2	.1	(Z)	-	.7	21
3534	Elevators and moving stairways	1.2	.2	.2	.7	-	-	(Z)	-	29
3535	Conveyors and conveying equipment	3.1	.6	.4	2.1	.2	(Z)	(Z)	.1	32
3536	Hoists, cranes, and monorails	2.3	.1	.7	1.5	.1	(Z)	-	.1	32
3537	Industrial trucks and tractors	6.5	1.4	1.2	3.9	.2	.1	(Z)	.1	54
354	Metalworking machinery	48.8	7.2	14.9	26.7	2.3	1.0	.4	.9	20
3541	Machine tools, metal cutting types	3.8	.3	1.4	2.2	(D)	(Z)	-	(D)	28
3542	Machine tools, metal forming types	1.9	.3	.9	.8	(Z)	(Z)	(Z)	(Z)	39
3543	Industrial patterns	8.6	.9	1.3	6.4	-	-	(Z)	(Z)	95
3544	Special dies, tools, jigs, and fixtures	14.9	2.0	4.6	8.3	1.1	.6	(Z)	.5	26
3545	Machine tool accessories	7.6	1.2	1.7	4.6	(D)	.1	.2	(D)	23
3546	Power-driven handtools	2.8	.8	.8	1.2	(Z)	(Z)	(Z)	(Z)	26
3548	Welding apparatus	8.3	1.7	4.0	2.7	.6	.3	(Z)	.2	25
355	Special industry machinery	32.3	2.6	7.7	22.1	1.0	(Z)	.1	.5	10
3552	Textile machinery	2.7	(Z)	1.6	1.0	(Z)	(Z)	-	(Z)	33
3553	Woodworking machinery	1.9	.1	.7	1.1	.1	(Z)	-	(Z)	28
3554	Paper industries machinery	4.5	.6	.9	3.0	(Z)	(Z)	-	(Z)	22
3555	Printing trades machinery	3.9	.4	1.0	2.4	(Z)	(Z)	(Z)	(Z)	22
3556	Food products machinery	2.1	.3	.6	1.2	.4	(Z)	(Z)	.4	26
3559	Special industry machinery, n.e.c.	17.3	1.0	2.8	13.5	.1	(Z)	(Z)	.1	16
356	General industrial machinery	80.9	6.8	25.0	49.1	6.8	1.4	1.0	4.3	10
3561	Pumps and pumping equipment	12.6	1.1	3.7	7.8	1.0	.7	.1	.8	18
3562	Ball and roller bearings	11.4	1.2	5.7	4.5	1.6	.7	.4	.5	17
3563	Air and gas compressors	7.2	.6	2.4	4.3	.7	.2	.1	.4	18
3564	Blowers and fans	4.8	.7	.9	3.1	(Z)	(Z)	(Z)	(Z)	36
3565	Packaging machinery	8.1	.1	1.3	6.7	(D)	.1	.1	(D)	15
3566	Speed changers, drives, and gears	10.1	.4	1.1	8.6	(D)	(Z)	(Z)	(D)	50
3567	Industrial furnaces and ovens	4.4	.6	1.5	2.3	(Z)	(Z)	(Z)	(Z)	29
3568	Power transmission equipment, n.e.c.	8.4	.6	3.5	4.3	.1	(Z)	(Z)	(Z)	42
3569	General industrial machinery, n.e.c.	13.9	1.5	4.9	7.5	.9	.3	.3	.3	27
357	Computer and office equipment	51.5	6.3	20.8	24.4	5.9	1.6	.1	4.2	15
3571	Electronic computers	25.9	2.5	11.2	12.3	(D)	(D)	(Z)	(D)	27
3572	Computer storage devices	8.8	2.0	4.0	2.9	1.8	1.1	(Z)	.7	11
3575	Computer terminals	2.4	.1	.5	1.9	.1	(Z)	(Z)	(Z)	56
3577	Computer peripheral equipment, n.e.c.	8.5	1.4	2.7	4.4	(D)	(D)	(Z)	(D)	24
3578	Calculating and accounting equipment	1.3	.1	.4	.8	.1	(Z)	(Z)	(Z)	79
3579	Office machines, n.e.c.	4.5	.3	2.1	2.1	.3	(Z)	(Z)	.3	40
358	Refrigeration and service machinery	72.3	9.9	27.8	34.6	3.9	.7	.3	2.9	5
3581	Automatic vending machines	1.2	.3	.2	.7	(Z)	-	-	(Z)	14
3582	Commercial laundry equipment	2.7	.2	1.2	1.3	(Z)	(Z)	(Z)	(Z)	35
3585	Refrigeration and heating equipment	62.6	8.0	25.3	29.3	3.9	.7	.3	2.9	5
3589	Service industry machinery, n.e.c.	4.9	1.3	.9	2.7	(Z)	(Z)	-	(Z)	12
359	Industrial machinery, n.e.c.	39.0	5.5	13.9	19.6	1.8	.1	.3	1.5	12
3592	Carburetors, pistons, rings, and valves	10.5	1.2	5.7	3.6	(D)	(Z)	.1	(D)	23
3593	Fluid power cylinders and actuators	4.2	.8	1.4	2.0	(D)	(Z)	.1	(D)	31
3594	Fluid power pumps and motors	3.8	.3	1.2	2.3	.3	(Z)	.1	.3	13
3599	Industrial machinery, n.e.c.	19.5	3.0	5.4	11.1	1.0	-	.1	.9	19
36	Electronic and other electric equipment	657.1	117.9	288.8	250.4	36.4	8.6	4.4	23.4	5
361	Electric distribution equipment	23.3	2.5	6.5	12.3	.4	(D)	(Z)	(D)	7
3612	Transformers, except electronic	10.4	1.3	2.9	6.1	.1	(D)	(Z)	(D)	9
3613	Switchgear and switchboard apparatus	13.0	1.2	5.6	6.2	.2	(Z)	(Z)	.2	11
362	Electrical industrial apparatus	47.1	9.9	17.4	19.8	1.4	.2	.3	1.9	17
3621	Motors and generators	15.2	1.8	4.5	8.9	.7	.1	.2	.5	12
3624	Carbon and graphite products	20.7	6.9	8.1	5.8	.3	(Z)	.1	.2	36
3625	Relays and industrial controls	10.6	1.2	4.7	4.8	.3	(Z)	.1	.2	22
363	Household appliances	43.0	5.1	18.3	19.6	3.1	.1	(D)	(D)	8
3631	Household cooking equipment	7.4	.4	4.2	2.8	1.1	(Z)	(D)	(D)	19
3632	Household refrigerators and freezers	11.2	1.6	3.7	5.9	(D)	(Z)	(D)	(D)	8
3633	Household laundry equipment	12.4	1.7	6.3	4.4	(D)	(Z)	(D)	.5	12
3634	Electric housewares and fans	2.8	.1	1.0	1.7	.1	(Z)	(D)	.6	30
3635	Household vacuum cleaners	3.4	.6	.8	2.0	.2	(Z)	(Z)	.2	31
3639	Household appliances, n.e.c.	5.9	.7	2.4	2.8	.2	(Z)	(Z)	.2	33
364	Electric lighting and wiring equipment	52.1	9.3	18.4	24.4	2.0	(Z)	(D)	.9	13
3641	Electric lamp bulbs and tubes	7.8	.9	2.9	4.0	.4	(Z)	(D)	.4	25
3643	Current-carrying wiring devices	10.8	.9	5.0	4.9	.5	(Z)	(Z)	.4	19
3644	Noncurrent-carrying wiring devices	8.7	.9	3.3	4.5	.4	(Z)	(Z)	.2	26
3645	Residential lighting fixtures	1.6	.5	.5	.7	(D)	(Z)	(Z)	.1	62
3646	Commercial lighting fixtures	5.5	1.9	.9	2.7	.2	(Z)	(Z)	.1	37
3647	Vehicle lighting equipment	10.2	1.8	2.8	5.6	(D)	(Z)	(Z)	.1	6
3648	Lighting equipment, n.e.c.	7.6	2.4	3.0	2.1	.1	(Z)	(Z)	(Z)	63

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
36	Electronic and other electric equipment—									
	Con.	19.6	1.5	4.7	13.4	1.1	.4	-	.7	20
365	Household audio and video equipment	12.7	.9	3.6	8.2	.1	(Z)	-	.1	25
3651	Household audio and video equipment	6.9	.6	1.1	5.2	.9	.3	-	.6	35
3652	Prerecorded records and tapes									
366	Communications equipment	66.7	5.3	30.8	30.5	2.1	.2	.1	1.8	33
3661	Telephone and telegraph apparatus	48.0	4.2	25.0	18.8	1.5	(D)	(Z)	(D)	45
3663	Radio and television communications equipment	14.9	.8	5.2	8.9	.5	(D)	.1	(D)	13
3669	Communications equipment, n.e.c.	3.8	.3	.7	2.9	.1	.1	(Z)	(Z)	56
367	Electronic components and accessories	312.1	59.8	156.0	96.3	17.6	.9	2.0	14.7	5
3671	Electron tubes	14.0	.7	5.5	7.8	(D)	(D)	(D)	(D)	9
3672	Printed circuit boards	93.3	11.0	55.0	27.3	(D)	.3	(D)	(D)	8
3674	Semiconductors and related devices	132.7	33.0	65.1	34.5	12.4	.1	.7	11.4	9
3675	Electronic capacitors	8.4	1.7	3.9	2.8	.2	.1	(Z)	(Z)	42
3676	Electronic resistors	2.8	.4	1.1	1.3	.2	.1	(Z)	(Z)	46
3677	Electronic coils and transformers	2.3	.4	.6	1.4	.1	(Z)	-	.1	51
3678	Electronic connectors	7.6	.9	4.3	2.3	.2	(Z)	(Z)	.2	34
3679	Electronic components, n.e.c.	51.0	11.6	20.5	18.9	2.3	.1	.8	1.4	16
369	Miscellaneous electrical equipment and supplies	93.2	24.6	34.5	34.1	8.7	6.3	.3	2.1	12
3691	Storage batteries	18.6	7.8	5.8	5.0	.3	(D)	(Z)	(D)	21
3692	Primary batteries, dry and wet	14.8	1.8	9.0	4.0	.7	(D)	(Z)	(D)	46
3694	Engine electrical equipment	15.0	2.3	5.2	7.5	.8	(Z)	.1	.7	15
3695	Magnetic and optical recording media	32.2	10.8	10.0	11.4	6.5	5.6	.2	1.0	19
3699	Electrical equipment and supplies, n.e.c.	12.5	1.8	4.5	6.2	.5	.1	.2	.1	21
37	Transportation equipment	1 171.7	298.5	347.0	526.2	68.7	5.3	9.7	53.6	4
371	Motor vehicles and equipment	660.6	218.7	215.8	226.2	44.9	(D)	(D)	32.6	5
3711	Motor vehicles and car bodies	401.0	163.2	110.3	127.5	21.3	(D)	(D)	15.6	7
3713	Truck and bus bodies	7.7	1.2	.8	5.7	.3	.1	(Z)	.2	15
3714	Motor vehicle parts and accessories	243.8	52.7	103.8	87.3	22.9	2.4	4.1	16.5	6
3715	Truck trailers	4.1	1.1	.4	2.5	.1	(Z)	-	(Z)	11
3716	Motor homes	4.0	.5	.5	3.1	.3	(Z)	(Z)	.3	11
372	Aircraft and parts	303.9	41.3	79.1	183.5	13.8	1.0	.3	12.4	6
3721	Aircraft	138.0	21.0	30.7	86.3	10.1	(D)	(Z)	(D)	9
3724	Aircraft engines and engine parts	63.8	6.4	21.2	36.2	1.4	(D)	.1	(D)	11
3728	Aircraft parts and equipment, n.e.c.	102.0	13.9	27.2	61.0	2.2	.4	.2	1.5	8
373	Ship and boat building and repairing	58.2	10.4	11.3	36.5	4.7	(D)	(D)	4.3	7
3731	Ship building and repairing	47.1	8.6	9.7	28.8	4.0	(D)	(D)	3.8	7
3732	Boat building and repairing	11.1	1.9	1.5	7.7	.6	.2	-	.5	19
374	Railroad equipment	11.3	1.9	3.7	5.7	.1	(Z)	(Z)	.1	7
3743	Railroad equipment	11.3	1.9	3.7	5.7	.1	(Z)	(Z)	.1	7
375	Motorcycles, bicycles, and parts	4.8	(D)	(D)	1.9	(D)	(Z)	-	(D)	14
3751	Motorcycles, bicycles, and parts	4.8	(D)	(D)	1.9	(D)	(Z)	-	(D)	14
376	Guided missiles, space vehicles, parts	109.8	19.9	31.0	58.9	4.2	(D)	(D)	3.4	15
3761	Guided missiles and space vehicles	59.5	7.7	15.7	36.1	2.0	(D)	(D)	1.3	10
3764	Space propulsion units and parts	34.5	8.1	7.4	19.0	.5	(Z)	(Z)	.4	33
3769	Space vehicle equipment, n.e.c.	15.7	4.0	8.0	3.7	1.8	(Z)	(Z)	1.7	59
379	Miscellaneous transportation equipment	23.2	(D)	(D)	13.5	(D)	.1	.1	(D)	10
3792	Travel trailers and campers	6.1	1.3	.4	4.5	(D)	(Z)	(Z)	(D)	34
3795	Tanks and tank components	10.5	(D)	(D)	5.7	(D)	.1	(Z)	(D)	2
3799	Transportation equipment, n.e.c.	6.5	1.4	1.8	3.2	.2	.1	(Z)	.1	14
38	Instruments and related products	331.9	48.0	89.4	194.5	13.3	2.0	2.2	9.1	4
381	Search and navigation equipment	70.7	9.3	21.3	40.1	1.7	(D)	(D)	1.5	7
3812	Search and navigation equipment	70.7	9.3	21.3	40.1	1.7	(D)	(D)	1.5	7
382	Measuring and controlling devices	56.4	6.3	19.7	30.4	(D)	.1	.1	(D)	9
3821	Laboratory apparatus and furniture	5.1	.6	1.4	3.1	(Z)	-	-	(Z)	36
3822	Environmental controls	4.5	.5	1.6	2.4	(Z)	(Z)	-	(Z)	27
3823	Process control instruments	10.1	1.2	2.7	6.2	.3	(Z)	(Z)	.3	21
3824	Fluid meters and counting devices	9.3	1.4	3.4	4.4	(D)	(Z)	-	(D)	23
3825	Instruments to measure electricity	13.3	1.1	6.4	5.8	.3	.1	(Z)	.2	13
3826	Analytical instruments	6.9	.3	2.2	4.4	.1	(Z)	(Z)	.1	29
3827	Optical instruments and lenses	3.5	.5	1.1	1.8	(Z)	(Z)	(Z)	(Z)	31
3829	Measuring and controlling devices, n.e.c.	3.8	.6	.9	2.3	-	-	-	-	24
384	Medical instruments and supplies	41.5	6.3	10.6	24.6	3.7	.9	1.9	.8	11
3841	Surgical and medical instruments	9.7	1.3	2.6	5.8	1.0	.4	(Z)	.5	19
3842	Surgical appliances and supplies	20.0	4.3	4.0	11.7	.9	.4	.3	.2	16
3843	Dental equipment and supplies	1.1	.1	.3	.7	-	-	-	-	43
3844	X-ray apparatus and tubes	5.9	.2	2.6	3.1	(Z)	-	-	(Z)	39
3845	Electromedical equipment	4.9	.5	1.1	3.3	1.9	.1	1.6	.1	22
385	Ophthalmic goods	7.1	.9	2.4	3.7	(D)	(Z)	(Z)	(D)	10
3851	Ophthalmic goods	7.1	.9	2.4	3.7	(D)	(Z)	(Z)	(D)	10
386	Photographic equipment and supplies	154.2	24.9	34.8	94.5	6.7	(D)	(D)	5.9	5
3861	Photographic equipment and supplies	154.2	24.9	34.8	94.5	6.7	(D)	(D)	5.9	5
387	Watches, clocks, watchcases, and parts	1.9	.2	.6	1.1	.1	(Z)	(Z)	(Z)	28
3873	Watches, clocks, watchcases, and parts	1.9	.2	.6	1.1	.1	(Z)	(Z)	(Z)	28
39	Miscellaneous manufacturing industries	89.7	22.7	21.7	45.3	8.5	1.9	1.4	5.1	5
391	Jewelry, silverware, and plated ware	8.8	2.0	3.1	3.7	(D)	(Z)	(D)	.1	9
3911	Jewelry, precious metal	3.3	.5	1.3	1.4	(D)	(Z)	(Z)	(Z)	12
3914	Silverware and plated ware	3.9	1.4	1.1	1.4	(Z)	(Z)	(Z)	(Z)	11
3915	Jewelers' materials and lapidary work	1.7	.1	.7	.8	(Z)	(Z)	-	(Z)	34
393	Musical instruments	5.6	2.4	1.5	1.7	(D)	(D)	(Z)	(Z)	20
3931	Musical instruments	5.6	2.4	1.5	1.7	(D)	(D)	(Z)	(Z)	20
394	Toys and sporting goods	17.8	4.5	4.3	9.0	2.6	.8	.9	.8	14
3944	Games, toys, and children's vehicles	2.9	.4	.4	2.0	.2	(Z)	(Z)	.2	14
3949	Sporting and athletic goods, n.e.c.	14.5	4.1	3.7	6.7	2.3	.8	.9	.6	17

Table 7. Operating Costs and Cost Offsets by Industries for All Media: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
39	Miscellaneous manufacturing industries—Con.									
395	Pens, pencils, office, and art supplies	7.1	.7	1.7	4.7	.2	(Z)	(Z)	.1	10
3951	Pens and mechanical pencils	3.6	.5	1.1	1.9	.1	(Z)	(Z)	.1	13
3952	Lead pencils and art goods	1.8	(Z)	.5	1.3	(Z)			(Z)	10
3955	Carbon paper and inked ribbons	1.6	.1	.2	1.3	.1	(Z)	(Z)	.1	30
396	Costume jewelry and notions	13.4	1.9	6.2	5.3	2.5	.2	.2	2.2	14
3961	Costume jewelry	3.8	.6	1.8	1.4	.5	.2	.1	.1	24
3965	Fasteners, buttons, needles, and pins	9.6	1.3	4.4	3.9	2.1	(Z)	(Z)	2.0	17
399	Miscellaneous manufactures	36.9	11.1	4.8	21.0	2.6	(D)	(D)	1.9	5
3991	Brooms and brushes	1.2	(Z)	.1	1.1	(Z)			(Z)	26
3993	Signs and advertising specialties	6.5	1.0	.7	4.8	.1	(Z)		.1	15
3995	Burial caskets	2.6	.5	.9	1.2	.2	(Z)		(Z)	30
3996	Hard surface floor coverings, n.e.c.	19.9	8.4	1.1	10.3	.2	(D)	(D)	(D)	3
3999	Manufacturing industries, n.e.c.	6.8	1.2	2.1	3.5	(D)	(D)	.2	(D)	16

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 8a. Operating Costs by Major Groups for the Media Air: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Total PAOC	Air				Standard error of estimate (PAOC) (percent)
			Total	Type of pollutant abated			
				Hazardous	Nonhazardous		
	All Industries¹	17 466.4	5 395.0	1 610.2	3 784.8	2	
20	Food and kindred products	1 312.0	162.7	13.4	149.2	3	
21	Tobacco products	33.5	11.2	(Z)	11.2	6	
22	Textile mill products	256.2	38.1	5.0	33.1	4	
24	Lumber and wood products	243.0	89.3	13.8	75.5	5	
25	Furniture and fixtures	118.5	43.0	18.7	24.3	6	
26	Paper and allied products	1 860.7	535.6	65.2	470.4	4	
27	Printing and publishing	239.0	85.6	47.9	37.7	4	
28	Chemicals and allied products	4 425.1	1 026.9	403.2	623.7	3	
29	Petroleum and coal products	2 585.4	1 428.9	348.8	1 080.1	4	
30	Rubber and miscellaneous plastics products	379.6	105.7	38.9	66.8	5	
31	Leather and leather products	53.5	3.7	1.4	2.3	13	
32	Stone, clay, and glass products	491.2	248.5	44.4	204.1	4	
33	Primary metal industries	1 993.4	933.1	256.1	677.0	3	
34	Fabricated metal products	761.2	130.4	66.3	64.0	4	
35	Industrial machinery and equipment	463.7	65.4	23.8	41.5	4	
36	Electronic and other electric equipment	657.1	117.9	65.9	52.1	5	
37	Transportation equipment	1 171.7	298.5	158.2	140.3	4	
38	Instruments and related products	331.9	48.0	31.5	16.5	4	
39	Miscellaneous manufacturing industries	89.7	22.7	7.7	15.0	5	

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 8b. Operating Costs by Major Groups for the Media Water: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Total PAOC	Water					Standard error of estimate (PAOC) (percent)
			Total	Type of pollutant abated				
				Hazardous	Nonhazardous			
					Nonhazardous	Payments to industry	Sewage services payments to government	
	All industries¹	17 466.4	6 576.9	1 701.5	4 875.3	3 618.5	1 256.9	2
20	Food and kindred products	1 312.0	835.7	30.0	805.7	386.4	419.3	3
21	Tobacco products	33.5	10.8	(Z)	10.8	6.5	4.2	6
22	Textile mill products	256.2	152.5	4.2	148.3	53.6	94.7	4
24	Lumber and wood products	243.0	49.5	10.9	38.6	32.4	6.2	5
25	Furniture and fixtures	118.5	14.3	3.7	10.6	4.0	6.5	6
26	Paper and allied products	1 860.7	822.7	39.4	783.3	632.2	151.1	4
27	Printing and publishing	239.0	36.5	11.6	24.9	8.5	16.4	4
28	Chemicals and allied products	4 425.1	1 946.8	691.5	1 255.3	1 081.0	174.3	3
29	Petroleum and coal products	2 585.4	742.8	203.3	539.6	513.7	25.8	4
30	Rubber and miscellaneous plastics products	379.6	73.3	9.5	63.9	31.4	32.5	5
31	Leather and leather products	53.5	30.6	1.9	28.6	18.1	10.5	13
32	Stone, clay, and glass products	491.2	94.6	12.4	82.3	60.7	21.6	4
33	Primary metal industries	1 993.4	575.0	132.7	442.3	400.5	41.8	3
34	Fabricated metal products	761.2	284.3	128.4	156.0	95.7	60.3	4
35	Industrial machinery and equipment	463.7	160.5	55.5	105.0	68.1	36.9	4

Table 8b. Operating Costs by Major Groups for the Media Water: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Major group	Water						Standard error of estimate (PAOC) (percent)
		Total PAOC	Type of pollutant abated					
			Total	Nonhazardous				
				Hazardous	Nonhazardous	Payments to industry	Sewage services payments to government	
36	Electronic and other electric equipment	657.1	288.8	153.8	135.0	73.9	61.1	5
37	Transportation equipment	1 171.7	347.0	156.5	190.5	125.1	65.4	4
38	Instruments and related products	331.9	89.4	47.9	41.5	19.5	22.0	5
39	Miscellaneous manufacturing industries	89.7	21.7	8.4	13.3	7.1	6.2	5

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 8c. Operating Costs by Major Groups for the Media Solid/Contained Waste: 1992

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Major group	Solid/contained waste						Standard error of estimate (PAOC) (percent)
		Total PAOC	Type of pollutant abated					
			Total	Nonhazardous				
				Hazardous	Nonhazardous	Payments to industry	Solid/contained waste collection payments to government	
	All industries¹	17 466.4	5 494.4	2 157.1	3 337.4	2 965.0	372.4	2
20	Food and kindred products	1 312.0	313.6	25.8	287.8	230.5	57.2	3
21	Tobacco products	33.5	11.5	1.7	9.8	9.1	.7	6
22	Textile mill products	256.2	65.7	9.6	56.1	44.1	12.0	4
24	Lumber and wood products	243.0	104.2	22.7	81.5	68.3	13.3	5
25	Furniture and fixtures	118.5	61.2	19.9	41.3	33.4	7.8	6
26	Paper and allied products	1 860.7	502.4	50.0	452.3	403.2	49.2	4
27	Printing and publishing	239.0	117.0	33.9	83.0	70.7	12.4	4
28	Chemicals and allied products	4 425.1	1 451.3	715.3	736.1	691.1	45.0	3
29	Petroleum and coal products	2 585.4	413.7	239.8	173.9	162.5	11.4	4
30	Rubber and miscellaneous plastics products	379.6	200.5	46.3	154.2	115.3	36.8	5
31	Leather and leather products	53.5	19.2	4.7	14.6	12.9	1.6	13
32	Stone, clay, and glass products	491.2	148.1	25.4	122.7	109.3	13.4	4
33	Primary metal industries	1 993.4	485.3	200.2	285.1	268.4	16.7	3
34	Fabricated metal products	761.2	346.6	161.7	184.9	160.4	24.5	4
35	Industrial machinery and equipment	463.7	237.9	101.4	136.5	119.1	17.4	4
36	Electronic and other electric equipment	657.1	250.4	129.7	120.7	106.3	14.5	5
37	Transportation equipment	1 171.7	526.2	271.3	254.9	232.7	22.2	4
38	Instruments and related products	331.9	194.5	81.9	112.6	104.1	8.4	4
39	Miscellaneous manufacturing industries	89.7	45.3	15.8	29.5	23.6	5.8	5

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
20	Food and kindred products	1 312.0	162.7	835.7	313.6	82.2	19.6	21.8	40.8	3
21	Tobacco products	33.5	11.2	10.8	11.5	.4	(Z)	(Z)	.3	6
22	Textile mill products	256.2	38.1	152.5	65.7	19.7	2.4	5.4	11.9	4
24	Lumber and wood products	243.0	89.3	49.5	104.2	18.3	5.9	3.7	8.7	5
25	Furniture and fixtures	118.5	43.0	14.3	61.2	10.3	3.6	.6	6.1	6
26	Paper and allied products	1 860.7	535.6	822.7	502.4	254.6	131.7	33.0	89.9	4
27	Printing and publishing	239.0	85.6	36.5	117.0	47.9	14.3	2.3	31.4	4
28	Chemicals and allied products	4 425.1	1 026.9	1 946.8	1 451.3	511.2	198.3	130.6	182.3	3
29	Petroleum and coal products	2 585.4	1 428.9	742.8	413.7	475.9	352.9	76.6	46.4	4
30	Rubber and miscellaneous plastics products	379.6	105.7	73.3	200.5	26.7	8.8	2.1	15.8	5
31	Leather and leather products	53.5	3.7	30.6	19.2	1.1	.3	.7	.2	13
32	Stone, clay, and glass products	491.2	248.5	94.6	148.1	90.3	39.4	3.9	47.1	4
33	Primary metal industries	1 993.4	933.1	575.0	485.3	164.2	106.3	13.2	44.7	3
34	Fabricated metal products	761.2	130.4	284.3	346.6	45.4	3.8	15.1	26.5	4
35	Industrial machinery and equipment	463.7	65.4	160.5	237.9	32.2	5.8	4.7	21.6	4
36	Electronic and other electric equipment	657.1	117.9	288.8	250.4	36.4	8.6	4.4	23.4	5
37	Transportation equipment	1 171.7	298.5	347.0	526.2	68.7	5.3	9.7	53.6	4
38	Instruments and related products	331.9	48.0	89.4	194.5	13.3	2.0	2.2	9.1	4
39	Miscellaneous manufacturing industries	89.7	22.7	21.7	45.3	8.5	1.9	1.4	5.1	5

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Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992

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[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	Alabama	380.0	136.2	146.7	97.1	43.8	22.7	6.6	14.5	6
20	Food and kindred products	21.5	5.1	13.7	2.6	1.4	.5	.5	.4	19
22	Textile mill products	10.8	1.3	6.9	2.7	3.9	.1	.2	3.6	14
24	Lumber and wood products	5.6	1.5	1.4	2.7	.2	(Z)	(Z)	.1	14
25	Furniture and fixtures	1.9	.5	.2	1.2	.4	.1	(Z)	.3	36
26	Paper and allied products	84.2	25.8	44.2	14.2	10.5	(D)	(D)	(D)	3
27	Printing and publishing	.8	.3	(Z)	.5	.2	-	-	.2	40
28	Chemicals and allied products	88.0	16.9	43.7	27.3	4.4	(D)	(D)	1.2	10
29	Petroleum and coal products	10.4	5.8	3.7	1.0	(Z)	(Z)	(Z)	-	90
30	Rubber and miscellaneous plastics products	7.7	2.0	1.7	4.0	(D)	-	(D)	(D)	19
32	Stone, clay, and glass products	15.1	12.0	1.0	2.0	3.4	(D)	(D)	(Z)	21
33	Primary metal industries	80.2	48.3	18.0	13.9	(D)	(D)	(D)	(D)	19
34	Fabricated metal products	23.7	4.9	5.7	13.1	1.2	.1	(Z)	1.1	30
35	Industrial machinery and equipment	5.0	.6	2.3	2.0	(D)	(Z)	(Z)	(Z)	23
36	Electronic and other electric equipment	17.1	9.3	1.5	6.2	6.0	(D)	(Z)	(D)	9
37	Transportation equipment	5.6	1.2	2.3	2.1	1.5	(D)	(Z)	(Z)	28
38	Instruments and related products	1.2	.2	(Z)	1.0	-	-	-	-	67
39	Miscellaneous manufacturing industries	1.1	.3	.3	.5	(Z)	(Z)	(Z)	(Z)	33
	Alaska	31.4	8.2	14.7	8.5	6.0	(D)	(D)	5.6	21
20	Food and kindred products	(D)	(D)	.5	1.0	(D)	-	-	(D)	(X)
26	Paper and allied products	27.1	7.4	(D)	(D)	5.3	-	(D)	(D)	25
28	Chemicals and allied products	(D)	(D)	(D)	(D)	(D)	(D)	-	-	(X)
	Arizona	129.4	66.4	36.0	27.1	8.4	6.0	.3	2.1	10
20	Food and kindred products	1.1	.1	.5	.6	.2	-	.1	(Z)	29
26	Paper and allied products	8.0	.8	7.1	.1	.6	.6	-	-	45
27	Printing and publishing	6.3	1.7	1.1	3.5	(Z)	(Z)	(Z)	(Z)	61
28	Chemicals and allied products	2.8	.4	.4	1.9	.2	.2	(Z)	(Z)	25
30	Rubber and miscellaneous plastics products	(D)	(D)	(D)	.6	(Z)	-	-	(Z)	(X)
32	Stone, clay, and glass products	10.7	9.0	1.2	.5	4.5	4.4	-	.1	44
33	Primary metal industries	(D)	(D)	(D)	.5	(D)	-	(Z)	(D)	(X)
34	Fabricated metal products	11.2	3.4	3.3	4.5	(D)	-	(Z)	(Z)	78
36	Electronic and other electric equipment	20.3	3.9	10.9	5.6	(D)	(Z)	(Z)	(D)	15
37	Transportation equipment	15.7	6.6	2.5	6.6	.3	.2	-	.1	36
38	Instruments and related products	2.7	.7	.9	1.1	(Z)	(Z)	(Z)	(Z)	28
	Arkansas	208.1	56.2	92.3	59.5	26.9	11.3	2.9	12.7	11
20	Food and kindred products	31.7	1.3	23.3	7.1	1.9	.2	(D)	(D)	15
22	Textile mill products	1.9	(D)	.6	(D)	(D)	(Z)	(D)	(D)	8
24	Lumber and wood products	14.3	4.8	4.0	5.5	.2	(Z)	(Z)	(Z)	23
25	Furniture and fixtures	1.7	(Z)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	11
26	Paper and allied products	49.7	23.7	15.7	10.4	14.1	3.9	(D)	(D)	10
27	Printing and publishing	3.2	(D)	(D)	2.2	.2	-	(Z)	.2	48
28	Chemicals and allied products	67.8	18.0	34.0	15.8	8.6	7.1	(Z)	1.6	29
29	Petroleum and coal products	3.7	.2	3.2	.3	.1	(Z)	(Z)	(Z)	82
30	Rubber and miscellaneous plastics products	4.4	1.1	.8	2.5	.1	(Z)	(Z)	(Z)	20
32	Stone, clay, and glass products	3.2	1.9	.2	1.1	(Z)	-	(Z)	-	52
33	Primary metal industries	9.7	3.2	3.0	3.5	(D)	(Z)	(Z)	(D)	46
34	Fabricated metal products	4.7	.5	2.1	2.2	.1	(Z)	(Z)	.1	11
35	Industrial machinery and equipment	3.1	.2	1.1	1.8	.1	(Z)	-	.1	24
36	Electronic and other electric equipment	5.0	.2	1.6	3.2	.5	-	-	.5	30
37	Transportation equipment	1.4	.1	.7	.6	(Z)	(Z)	-	-	60
38	Instruments and related products	1.3	.4	.5	.4	.1	(Z)	(Z)	(Z)	32
	California	1 492.6	490.3	584.1	418.2	142.8	52.3	19.4	71.1	4
20	Food and kindred products	154.8	14.1	105.2	35.6	10.8	2.9	1.8	6.1	10
22	Textile mill products	7.7	1.6	4.1	1.9	.4	.2	.1	.1	24
24	Lumber and wood products	25.1	8.0	6.6	11.4	4.8	2.6	.3	1.8	13
25	Furniture and fixtures	7.1	2.1	1.1	3.9	.9	.1	(Z)	.2	17
26	Paper and allied products	58.7	21.2	20.0	17.5	7.6	2.1	1.9	3.6	19
27	Printing and publishing	23.6	8.2	4.1	11.3	4.2	.4	.3	3.5	13
28	Chemicals and allied products	128.1	30.3	70.2	27.7	5.8	4.2	.7	1.0	12
29	Petroleum and coal products	552.2	260.6	214.6	77.0	57.0	31.3	11.8	13.9	9
30	Rubber and miscellaneous plastics products	40.7	16.4	5.0	19.3	1.3	.5	.1	.7	17
31	Leather and leather products	2.2	.1	1.4	.7	(Z)	(Z)	(Z)	(Z)	52
32	Stone, clay, and glass products	58.9	33.2	7.3	18.5	(D)	(D)	(Z)	(D)	7
33	Primary metal industries	55.5	15.2	23.0	17.3	(D)	(D)	.2	(D)	9
34	Fabricated metal products	70.5	14.2	27.8	28.5	1.9	.3	.4	1.2	13
35	Industrial machinery and equipment	23.6	3.7	7.0	12.9	1.0	.4	.3	.3	12
36	Electronic and other electric equipment	100.4	21.9	42.8	35.8	2.9	.4	1.0	1.5	11
37	Transportation equipment	135.8	30.7	32.9	72.2	4.2	1.2	.2	2.8	8
38	Instruments and related products	40.7	6.8	9.5	24.3	.8	.1	(Z)	.6	11
39	Miscellaneous manufacturing industries	5.9	2.1	1.5	2.3	.3	.1	.1	.1	21
	Colorado	83.5	11.3	44.5	27.7	5.1	1.9	1.0	2.2	12
20	Food and kindred products	26.8	1.7	19.5	5.6	1.1	(D)	(D)	.3	9
26	Paper and allied products	1.3	.2	.8	.8	(D)	(D)	(D)	.2	57
27	Printing and publishing	1.5	.3	.3	.8	.9	.1	.1	.6	41
28	Chemicals and allied products	10.9	3.1	4.8	3.0	(Z)	(Z)	(Z)	(Z)	56
32	Stone, clay, and glass products	(D)	.6	(D)	.9	(Z)	-	-	(Z)	(X)
34	Fabricated metal products	4.6	(D)	2.6	(D)	.2	-	(Z)	.2	12
35	Industrial machinery and equipment	7.1	1.9	3.3	1.9	1.5	1.0	(Z)	.5	36
36	Electronic and other electric equipment	11.5	.7	7.8	3.0	.3	(Z)	(Z)	.3	56
37	Transportation equipment	(D)	.3	(D)	(D)	(D)	(D)	(Z)	-	(X)
38	Instruments and related products	8.0	(D)	(D)	3.5	.1	(Z)	(Z)	.1	4

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992

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[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	Connecticut	168.5	23.6	52.8	92.1	10.1	2.3	1.7	6.1	5
	Food and kindred products.....	1.0	(D)	(D)	.3	(D)	-	(D)	(Z)	10
20	Textile mill products.....	2.0	.9	.4	.7	.1	(Z)	(Z)	.1	43
22	Paper and allied products.....	8.7	4.1	2.0	2.6	2.0	(Z)	(Z)	1.9	43
26	Printing and publishing.....	2.5	.9	.2	1.3	.2	(Z)	-	.2	25
27	Chemicals and allied products.....	33.9	7.0	14.6	12.3	2.0	1.5	.5	.1	10
28	Petroleum and coal products.....	1.4	.9	.1	.4	-	-	-	-	45
29	Rubber and miscellaneous plastics products.....	3.0	.5	.6	1.9	.3	(Z)	(D)	(D)	44
30	Stone, clay, and glass products.....	2.1	.3	.6	1.2	-	-	-	-	53
32	Primary metal industries.....	6.5	1.2	2.6	2.7	.2	-	(Z)	.1	27
33	Fabricated metal products.....	20.2	2.0	11.4	6.8	1.5	.3	.5	.8	12
34	Industrial machinery and equipment.....	11.3	.7	2.1	8.5	(D)	-	(Z)	(D)	19
35	Electronic and other electric equipment.....	7.1	.4	3.2	3.5	.4	(Z)	.2	.2	18
36	Transportation equipment.....	(D)	(D)	(D)	(D)	1.8	-	(Z)	1.8	(X)
37	Instruments and related products.....	5.5	.8	1.9	2.8	.6	.4	.1	.1	41
38	Miscellaneous manufacturing industries.....	(D)	.3	.8	(D)	.2	(Z)	(Z)	.2	(X)
	Delaware	145.5	67.9	54.1	23.5	(D)	(D)	(D)	1.1	15
	Food and kindred products.....	6.0	(D)	4.0	(D)	(D)	(Z)	-	(D)	30
20	Paper and allied products.....	(D)	(D)	(D)	(D)	-	-	-	-	(X)
26	Chemicals and allied products.....	48.5	10.1	25.6	12.8	(D)	.7	(D)	(D)	11
28	Petroleum and coal products.....	(D)	(D)	(D)	(D)	-	-	-	-	(X)
29	Rubber and miscellaneous plastics products.....	1.5	(D)	(D)	1.1	-	-	-	-	29
30	Transportation equipment.....	(D)	1.6	(D)	(D)	(Z)	-	-	(Z)	(X)
37	District of Columbia.....	1.4	.3	.4	.7	.5	-	(Z)	.5	40
	Printing and publishing.....	1.3	.3	.4	.7	.5	-	(Z)	.5	43
	Florida	304.3	81.6	125.4	97.3	34.2	18.7	7.4	8.0	5
	Food and kindred products.....	54.8	5.9	31.8	17.1	(D)	.4	.4	(D)	16
20	Lumber and wood products.....	3.3	1.1	.8	1.4	.3	(D)	.1	(D)	38
24	Paper and allied products.....	72.3	26.7	28.9	16.6	6.5	6.4	(Z)	.1	3
26	Printing and publishing.....	4.3	.5	1.3	2.5	.3	.1	.1	.1	23
27	Chemicals and allied products.....	78.7	30.6	27.8	20.4	17.6	11.0	5.9	.7	8
28	Petroleum and coal products.....	1.2	.6	.1	.5	(D)	(D)	(Z)	(Z)	33
29	Rubber and miscellaneous plastics products.....	5.0	.9	.6	3.5	.5	(Z)	.3	(Z)	40
30	Stone, clay, and glass products.....	10.4	4.7	2.5	3.2	.5	-	.3	.2	16
32	Primary metal industries.....	3.8	.5	1.8	1.4	.1	(Z)	(Z)	(Z)	38
33	Fabricated metal products.....	15.8	3.2	6.7	5.8	.6	.2	.2	.3	26
34	Industrial machinery and equipment.....	9.6	1.1	2.9	5.7	.2	.1	(Z)	.1	32
35	Electronic and other electric equipment.....	15.8	2.2	7.8	5.7	.3	(Z)	.1	.2	10
36	Transportation equipment.....	19.6	1.1	9.2	9.3	.6	(Z)	.2	.3	40
37	Instruments and related products.....	6.5	1.5	2.4	2.6	.1	(Z)	(Z)	.1	5
38	Miscellaneous manufacturing industries.....	1.7	.4	.3	1.0	.2	(Z)	(Z)	.1	49
	Georgia	375.7	118.4	152.3	105.0	47.0	28.7	3.7	14.6	6
	Food and kindred products.....	34.4	3.2	23.8	7.4	2.7	.3	.2	2.2	12
20	Tobacco products.....	(D)	(D)	(D)	(D)	-	-	-	-	(X)
22	Textile mill products.....	25.9	2.9	14.2	8.8	1.3	.1	(D)	(D)	6
24	Lumber and wood products.....	9.2	4.6	1.3	3.3	.5	.3	(Z)	.1	12
25	Furniture and fixtures.....	1.3	.3	.3	.7	.1	(Z)	(Z)	(Z)	22
26	Paper and allied products.....	104.3	41.0	39.8	23.6	29.9	23.8	(D)	(D)	10
27	Printing and publishing.....	8.3	4.9	.6	2.8	(D)	.2	(Z)	(D)	26
28	Chemicals and allied products.....	79.4	24.0	38.9	16.5	4.0	.9	1.7	1.4	17
29	Petroleum and coal products.....	2.8	.7	1.3	.8	(D)	(D)	-	-	34
30	Rubber and miscellaneous plastics products.....	14.9	7.1	4.9	2.8	.1	.1	(Z)	(Z)	47
32	Stone, clay, and glass products.....	13.4	6.3	2.4	4.7	2.9	1.4	.1	1.4	7
33	Primary metal industries.....	10.5	2.1	4.0	4.4	1.9	(D)	.6	(D)	27
34	Fabricated metal products.....	11.8	2.5	4.6	4.7	(Z)	(Z)	(Z)	(Z)	30
35	Industrial machinery and equipment.....	11.3	.8	1.6	8.9	.6	.1	.1	.5	46
36	Electronic and other electric equipment.....	5.2	.7	2.2	2.4	.7	(Z)	(D)	(D)	10
37	Transportation equipment.....	35.2	15.3	9.7	10.1	.4	(Z)	(Z)	.3	20
38	Instruments and related products.....	1.4	.6	.5	.3	.3	.3	-	-	43
39	Miscellaneous manufacturing industries.....	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	(X)
	Hawaii	12.8	3.3	4.6	4.9	.3	.1	.1	.1	39
	Food and kindred products.....	3.5	1.3	.8	1.5	-	-	-	-	46
20	Petroleum and coal products.....	6.2	.6	3.4	2.2	-	-	-	-	61
29	Stone, clay, and glass products.....	1.9	1.2	.1	.6	(Z)	(Z)	-	-	26
32	Idaho.....	60.4	21.3	23.9	15.2	2.4	.3	1.4	.7	13
	Food and kindred products.....	13.5	1.6	9.7	2.1	(D)	(D)	1.3	.3	22
20	Lumber and wood products.....	5.1	2.2	.3	2.6	(D)	(D)	(Z)	(Z)	14
24	Paper and allied products.....	(D)	(D)	(D)	(D)	-	-	-	-	(X)
26	Chemicals and allied products.....	26.8	13.3	5.9	7.6	.1	.1	(Z)	(Z)	26
28	Fabricated metal products.....	3.1	.1	2.2	.8	.1	(Z)	(Z)	(Z)	58
34	Industrial machinery and equipment.....	1.0	.1	.5	.4	.3	-	-	.3	29
35	Electronic and other electric equipment.....	(D)	(D)	(D)	(D)	(Z)	-	-	(Z)	(X)
36	Illinois.....	896.1	322.5	297.0	276.7	89.4	50.1	16.7	22.6	6
	Food and kindred products.....	70.9	14.4	37.0	19.5	3.4	.3	1.0	2.1	9
20	Lumber and wood products.....	2.6	1.1	.3	1.2	.1	(Z)	(Z)	.1	36
24	Furniture and fixtures.....	6.1	2.9	.7	2.5	.3	.1	.1	.1	34
25	Paper and allied products.....	48.4	8.3	16.3	23.8	14.7	2.1	10.0	2.5	38
26	Printing and publishing.....	23.5	11.5	2.1	9.8	4.4	.6	.1	3.7	10
27	Chemicals and allied products.....	183.1	35.7	82.4	64.9	24.0	15.7	3.9	4.4	9
28	Petroleum and coal products.....	202.7	136.6	42.8	23.3	27.9	(D)	(D)	(D)	14
29	Rubber and miscellaneous plastics products.....	21.8	5.7	4.6	11.5	.7	.1	.1	.6	10
30	Leather and leather products.....	1.4	(Z)	.8	.5	-	-	-	-	49
31	Stone, clay, and glass products.....	13.7	7.1	2.0	4.6	1.4	(D)	.1	(D)	19

Table 9. **Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992**
 -Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
Illinois-Con.										
33	Primary metal industries	121.4	56.7	34.8	29.8	4.0	.8	.3	2.9	6
34	Fabricated metal products	67.7	12.0	24.2	31.5	2.5	.6	.8	1.2	16
35	Industrial machinery and equipment	43.2	10.9	16.4	15.9	2.5	.8	.3	1.4	9
36	Electronic and other electric equipment	46.4	4.5	24.8	17.1	1.7	(Z)	.1	1.6	47
37	Transportation equipment	32.4	13.1	4.2	15.2	1.0	-	(Z)	1.0	32
38	Instruments and related products	5.8	.6	2.2	2.9	(D)	(Z)	(Z)	(D)	28
39	Miscellaneous manufacturing industries	4.3	1.2	.8	2.4	(D)	.1	(Z)	(D)	13
	Illinois	706.6	255.2	253.2	198.2	73.9	25.9	33.6	14.4	3
Indiana										
20	Food and kindred products	33.0	5.9	21.7	5.5	(D)	(D)	-	.1	11
24	Lumber and wood products	5.7	1.4	.4	3.9	.2	.1	(Z)	.1	19
25	Furniture and fixtures	5.7	2.1	1.4	2.3	.6	.4	(Z)	.2	20
26	Paper and allied products	8.4	1.3	2.4	4.7	.5	(Z)	(Z)	.4	23
27	Printing and publishing	8.8	4.5	.9	3.4	.5	(Z)	(Z)	.4	16
28	Chemicals and allied products	154.5	53.8	59.7	41.0	41.4	(D)	(D)	7.4	5
29	Petroleum and coal products	77.5	(D)	(D)	17.3	17.6	16.8	.2	.6	9
30	Rubber and miscellaneous plastics products	17.9	3.0	4.2	10.7	1.2	.7	(Z)	.6	14
32	Stone, clay, and glass products	16.2	8.9	2.6	4.6	1.4	1.4	(Z)	.2	21
33	Primary metal industries	227.8	102.7	88.6	36.5	3.0	.3	.5	2.2	6
34	Fabricated metal products	37.2	5.4	17.3	14.4	1.6	.2	.8	.6	13
35	Industrial machinery and equipment	27.9	3.4	9.8	14.6	.4	.1	.1	.2	19
36	Electronic and other electric equipment	27.1	3.8	10.0	13.3	.3	.1	(Z)	.2	6
37	Transportation equipment	53.1	10.7	19.5	23.0	2.2	-	.6	1.4	7
38	Instruments and related products	2.8	.2	.9	1.7	(D)	-	(D)	(Z)	38
39	Miscellaneous manufacturing industries	2.0	(D)	(D)	1.1	.1	(Z)	(Z)	.1	17
	Indiana	166.9	53.3	60.0	53.6	11.9	3.6	3.1	5.2	7
Iowa										
20	Food and kindred products	53.2	15.8	25.7	11.8	2.6	1.1	.7	.8	6
24	Lumber and wood products	3.5	1.2	.4	2.0	.3	(Z)	-	.3	31
26	Paper and allied products	4.1	(D)	(D)	2.0	-	-	-	-	26
27	Printing and publishing	4.2	(D)	(D)	2.1	.1	-	(Z)	(Z)	26
28	Chemicals and allied products	22.9	3.9	12.0	7.0	2.5	(D)	(D)	.3	2
30	Rubber and miscellaneous plastics products	6.6	.9	1.1	4.6	1.0	(Z)	(Z)	.9	20
32	Stone, clay, and glass products	6.3	5.2	.2	1.0	1.2	1.2	-	(Z)	25
33	Primary metal industries	24.1	16.4	3.5	4.2	(D)	(Z)	(D)	(D)	38
34	Fabricated metal products	3.2	.3	.5	2.4	(Z)	-	-	(Z)	21
35	Industrial machinery and equipment	17.4	3.0	6.3	8.1	(D)	(D)	(D)	(D)	6
36	Electronic and other electric equipment	11.0	1.3	5.7	3.9	1.0	(Z)	(D)	(D)	19
37	Transportation equipment	4.7	2.2	.6	1.8	.2	(Z)	-	.2	47
38	Instruments and related products	4.4	(D)	(D)	2.4	(Z)	-	(Z)	(Z)	61
	Iowa	107.3	29.0	37.0	41.3	8.7	4.2	.9	3.6	11
Kansas										
20	Food and kindred products	9.7	1.5	4.7	3.5	.8	.4	.1	.3	15
26	Paper and allied products	4.7	(D)	2.3	(D)	(D)	(D)	-	(D)	46
27	Printing and publishing	2.2	.4	.3	1.5	.8	-	-	.8	25
28	Chemicals and allied products	19.2	5.3	7.3	6.6	3.3	1.9	.7	.6	14
29	Petroleum and coal products	23.4	10.7	8.1	4.5	1.3	1.2	(Z)	(Z)	34
30	Rubber and miscellaneous plastics products	(D)	1.1	(D)	2.0	.2	(Z)	(Z)	.2	(X)
31	Leather and leather products	(D)	(D)	(D)	(D)	(Z)	(Z)	-	(Z)	(X)
32	Stone, clay, and glass products	5.5	2.7	1.2	1.5	(D)	(D)	-	(Z)	7
33	Primary metal industries	2.8	1.5	.3	1.0	.1	(Z)	(Z)	(Z)	52
34	Fabricated metal products	1.4	(Z)	.4	.9	(Z)	-	-	(Z)	50
35	Industrial machinery and equipment	3.2	.5	.8	1.9	(D)	(Z)	(Z)	(D)	20
36	Electronic and other electric equipment	3.0	1.1	1.4	.5	(D)	(D)	(Z)	(D)	59
37	Transportation equipment	23.9	2.9	7.4	13.7	1.0	-	-	1.0	25
38	Instruments and related products	2.0	(Z)	1.0	1.0	-	-	-	-	83
	Kansas	324.8	138.4	102.2	84.1	14.5	3.0	1.7	9.8	5
Kentucky										
20	Food and kindred products	10.9	1.9	7.4	1.6	.3	.1	-	.3	30
21	Tobacco products	(D)	(D)	(D)	(D)	-	-	-	-	(X)
22	Textile mill products	1.6	(Z)	1.2	.3	(Z)	(Z)	(Z)	(Z)	32
24	Lumber and wood products	1.9	.4	.4	1.0	.2	.1	(Z)	.2	19
25	Furniture and fixtures	1.8	.1	(Z)	1.7	.1	-	-	.1	71
26	Paper and allied products	31.6	19.7	5.6	6.3	2.8	.2	(Z)	2.6	30
27	Printing and publishing	6.3	2.5	.9	2.9	2.2	(D)	(Z)	(D)	9
28	Chemicals and allied products	97.9	23.7	49.1	25.1	4.1	(D)	(D)	2.2	10
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	-	(X)
30	Rubber and miscellaneous plastics products	7.1	3.0	1.4	2.6	.1	(Z)	-	.1	20
32	Stone, clay, and glass products	7.1	2.7	1.6	2.8	.4	(D)	.2	(D)	10
33	Primary metal industries	53.3	29.1	13.1	11.1	.8	.6	.2	.1	8
34	Fabricated metal products	14.4	4.6	3.4	6.4	(D)	(Z)	(D)	(Z)	31
35	Industrial machinery and equipment	6.3	1.7	1.7	2.9	(D)	(D)	-	(D)	13
36	Electronic and other electric equipment	12.4	1.5	4.9	6.0	.4	(Z)	(D)	(D)	19
37	Transportation equipment	(D)	(D)	(D)	(D)	(Z)	-	-	(Z)	(X)
38	Miscellaneous manufacturing industries	2.1	.3	.6	1.2	2.0	-	-	2.0	35
	Kentucky	920.0	317.3	347.6	255.1	169.4	109.5	23.6	36.3	5
Louisiana										
20	Food and kindred products	8.1	.7	4.7	2.8	.2	.1	.1	(Z)	28
24	Lumber and wood products	5.7	2.1	2.3	1.3	.1	(Z)	(Z)	(Z)	20
26	Paper and allied products	45.9	15.7	18.8	11.4	(D)	(D)	(D)	.6	3
28	Chemicals and allied products	527.3	124.7	233.1	169.5	63.9	33.0	13.8	17.1	7
29	Petroleum and coal products	291.2	164.3	72.5	54.4	87.0	61.6	(D)	(D)	1
30	Rubber and miscellaneous plastics products	1.6	.7	.3	.6	(D)	-	-	(D)	46
32	Stone, clay, and glass products	2.9	.9	1.0	.9	(Z)	(Z)	(Z)	(Z)	37
33	Primary metal industries	5.9	1.5	2.8	1.6	-	-	-	-	52
34	Fabricated metal products	3.7	.5	1.1	2.1	.1	(Z)	(Z)	(Z)	17
36	Electronic and other electric equipment	4.2	1.0	.6	2.5	(D)	(D)	-	(Z)	31
37	Transportation equipment	21.7	4.8	9.8	7.1	1.9	(Z)	(Z)	1.9	42

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992

- Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)	SIC code
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste		
	Maine	123.5	21.2	60.7	41.5	24.5	(D)	(D)	3.1	10	
	Textile mill products	2.6	(Z)	1.8	.8	.7	(Z)	-	.7	23	27
22	Lumber and wood products	1.9		.2	.5	.3	(D)	(Z)	(D)	6	28
24	Paper and allied products	86.9	12.1	46.0	28.8	(D)	(D)	(D)	(D)	12	29
26	Chemicals and allied products	5.1	.2	2.6	2.3	-	-	-	(Z)	87	30
28	Rubber and miscellaneous plastics products	2.4	.7	.4	1.2	.6	.6	(Z)	(Z)	36	32
30	Leather and leather products	(D)	(D)	(D)	(D)	.1	2.3	(D)	(D)	.1	33
31	Stone, clay, and glass products	5.2	3.6	.9	.8	2.9	-	-	-	.1	34
32	Fabricated metal products	4.0	.5	2.0	1.5	-	-	-	-	.1	35
34	Industrial machinery and equipment	1.1	.3	.3	.6	-	-	-	-	.1	36
35	Electronic and other electric equipment	4.0	.5	2.9	.7	.1	-	(Z)	(D)	(X)	37
36	Transportation equipment	(D)	(D)	(D)	(D)	(D)	-	-	-	-	39
37	Instruments and related products	(D)	(D)	(D)	(D)	(D)	-	-	-	-	
	Maryland	205.6	55.4	80.5	69.7	13.6	3.8	2.6	7.0	6	
	Food and kindred products	29.5	.9	18.3	10.4	1.8	.2	.1	1.5	25	20
20	Textile mill products	1.0	.1	.7	.3	.3	(Z)	-	.1	46	24
22	Lumber and wood products	1.2	.2	.1	1.0	.1	(Z)	(Z)	(Z)	47	25
24	Furniture and fixtures	1.0	.7	(Z)	2	(D)	(D)	.3	(Z)	57	26
25	Paper and allied products	13.3	(D)	(D)	3.1	(D)	(D)	-	(Z)	7	27
26	Printing and publishing	5.7	1.7	.9	3.1	2.2	.2	(Z)	2.0	25	28
27	Chemicals and allied products	49.6	9.1	24.1	16.4	3.3	(D)	(D)	1.8	10	30
28	Petroleum and coal products	(D)	.8	(D)	1.1	(D)	(Z)	(Z)	(Z)	(X)	31
29	Rubber and miscellaneous plastics products	4.6	.4	1.0	3.2	.1	(Z)	(Z)	.1	22	32
30	Leather and leather products	3.5	2.2	.5	.9	1.9	(D)	(Z)	(D)	12	33
32	Stone, clay, and glass products	(D)	(D)	(D)	12.9	1.4	-	(D)	(D)	(X)	34
33	Primary metal industries	3.6	1.2	1.0	1.5	.2	(Z)	.1	.1	42	35
34	Fabricated metal products	3.4	.1	1.7	1.6	.2	(Z)	(Z)	.1	30	36
35	Industrial machinery and equipment	1.9	.2	.6	1.1	.3	-	-	.2	36	37
36	Electronic and other electric equipment	15.1	2.9	5.3	6.9	(D)	-	-	(D)	49	38
37	Transportation equipment	7.1	.3	1.2	5.5	(D)	-	-	-	13	39
38	Instruments and related products	(D)	(D)	(D)	(D)	(D)	-	-	-	-	
	Massachusetts	246.2	34.3	106.9	105.1	16.8	2.3	4.6	9.9	7	
	Food and kindred products	20.8	.3	11.8	8.7	.6	.1	.4	.1	35	24
20	Textile mill products	12.5	2.3	7.0	3.2	3.0	(Z)	2.9	(Z)	16	26
22	Lumber and wood products	1.2	.6	.2	.6	.1	(Z)	(Z)	(Z)	45	28
24	Furniture and fixtures	19.2	.6	11.6	7.0	1.1	(Z)	(Z)	1.0	32	29
25	Paper and allied products	5.5	.3	.9	4.2	1.0	(Z)	(Z)	.9	18	33
26	Printing and publishing	36.7	5.2	19.0	12.6	3.0	.1	(Z)	2.8	21	
27	Chemicals and allied products	3.5	1.9	.3	1.3	(Z)	(D)	(Z)	(D)	35	20
28	Petroleum and coal products	17.7	6.8	4.1	6.8	3.7	-	-	-	20	26
29	Rubber and miscellaneous plastics products	1.4	(Z)	1.2	.2	-	(Z)	(Z)	(Z)	51	27
30	Leather and leather products	1.8	.3	.7	.8	(Z)	(Z)	(Z)	(Z)	30	28
31	Stone, clay, and glass products	12.2	2.6	4.9	4.7	.6	.4	(Z)	.2	24	30
32	Primary metal industries	26.7	2.4	11.1	13.2	.4	-	(Z)	.1	23	31
33	Fabricated metal products	6.2	.4	1.6	4.2	.1	-	(Z)	.2	19	32
34	Industrial machinery and equipment	33.4	4.6	17.3	11.6	.5	.1	.2	1.5	17	33
35	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(D)	-	-	-	(X)	34
36	Transportation equipment	34.1	5.2	11.2	17.7	1.7	.1	.1	1.5	11	35
37	Instruments and related products	(D)	(D)	(D)	(D)	(D)	(D)	.6	(D)	(X)	36
38	Miscellaneous manufacturing industries	(D)	(D)	(D)	(D)	(D)	-	-	-	3	37
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	(D)	(D)	-	-	-	38	38
	Michigan	763.0	220.2	290.8	252.0	111.0	14.4	14.6	81.9	3	
	Food and kindred products	42.5	3.7	24.4	14.4	2.2	(D)	(Z)	(D)	14	
20	Textile mill products	7.6	4.1	.9	2.6	.5	.1	(Z)	.3	18	
24	Lumber and wood products	9.5	3.0	1.2	5.2	(D)	(D)	(D)	(D)	10	
25	Furniture and fixtures	60.9	8.4	34.8	17.7	5.5	3.6	1.7	.2	14	25
26	Paper and allied products	3.5	.9	.6	2.0	.9	-	(Z)	.9	24	27
27	Printing and publishing	156.8	42.4	61.8	52.6	71.2	6.5	4.3	60.3	9	28
28	Chemicals and allied products	1.4	.1	.7	.5	.9	(Z)	(D)	.3	30	30
29	Petroleum and coal products	25.3	10.9	4.0	10.3	.9	(D)	(D)	(Z)	26	31
30	Rubber and miscellaneous plastics products	3.3	(D)	(D)	1.9	2.8	(D)	(D)	(Z)	37	
31	Leather and leather products	19.3	9.0	5.8	4.5	2.8	(D)	(D)	1.1	9	2
32	Stone, clay, and glass products	122.4	53.6	41.3	27.5	2.2	(D)	(D)	1.3	7	2
33	Primary metal industries	52.7	6.6	22.0	24.1	2.7	.1	1.6	1.0	10	2
34	Fabricated metal products	25.3	4.6	9.9	10.8	.8	(Z)	(Z)	.7	11	2
35	Industrial machinery and equipment	6.8	.7	3.5	2.7	.2	.1	.1	.1	34	3
36	Electronic and other electric equipment	218.0	70.0	76.6	71.4	20.0	(Z)	(D)	(D)	8	3
37	Transportation equipment	5.7	1.2	1.7	2.8	(D)	(Z)	(Z)	(Z)	30	3
38	Instruments and related products	1.3	(D)	(D)	.4	.1	(Z)	(Z)	(Z)	3	3
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	(D)	(D)	-	-	-	6	3
	Minnesota	254.5	72.2	102.5	79.8	27.9	9.5	4.1	14.3	6	
	Food and kindred products	56.2	10.3	35.4	10.6	1.7	(D)	(D)	1.1	18	
20	Textile mill products	12.3	7.2	2.2	2.9	1.8	(D)	(D)	.3	18	
24	Lumber and wood products	(D)	(D)	.5	1.1	.1	(Z)	(Z)	(D)	(X)	3
25	Furniture and fixtures	35.9	4.9	22.8	8.1	(D)	(D)	(D)	(D)	8	
26	Paper and allied products	8.6	2.8	.8	5.0	2.0	-	.2	1.6	15	
27	Printing and publishing	19.5	(D)	(D)	11.1	.1	(D)	-	.1	16	2
28	Chemicals and allied products	(D)	(D)	(D)	3.8	(D)	(D)	-	-	(X)	2
29	Petroleum and coal products	3.1	.4	.6	2.1	.2	(Z)	(Z)	.1	29	2
30	Rubber and miscellaneous plastics products	7.6	1.6	2.6	3.3	.1	(Z)	(Z)	.8	10	2
32	Stone, clay, and glass products	5.8	1.7	1.3	2.8	.9	(Z)	(Z)	.1	30	2
33	Primary metal industries	16.8	1.7	5.6	9.6	.5	(D)	(Z)	(D)	12	2
34	Fabricated metal products	18.5	1.2	8.7	8.6	.2	(Z)	(Z)	.1	39	2
35	Industrial machinery and equipment	8.0	.6	3.4	4.0	.1	(Z)	(Z)	.1	15	2
36	Electronic and other electric equipment	12.9	7.2	1.6	4.1	.2	(Z)	(Z)	.1	31	2
37	Transportation equipment	3.5	.3	1.2	2.0	.1	(Z)	(Z)	.1	25	2
38	Instruments and related products	(D)	(D)	(D)	(D)	(D)	-	-	-	-	
	Mississippi	269.1	120.9	86.1	62.1	36.8	25.9	5.2	5.6	7	
	Food and kindred products	8.5	.3	6.3	1.9	(Z)	-	-	(Z)	18	
20	Textile mill products	1.8	(D)	1.1	(D)	(D)	(Z)	(Z)	(Z)	6	
22	Lumber and wood products	7.0	2.8	1.5	2.7	(D)	(D)	(D)	.1	10	
24	Furniture and fixtures	5.1	.6	.8	3.7	.3	(D)	(D)	.2	20	
25	Paper and allied products	39.7	12.1	16.1	11.5	(D)	-	-	(D)	5	

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992
— Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
Mississippi—Con.										
27	Printing and publishing	2.5	(D)		(D)					
28	Chemicals and allied products	56.7	12.3	3	(D)	.2				18
29	Petroleum and coal products	106.9	(D)	35.4	9.0	3.3	(D)	(D)	1.9	9
30	Rubber and miscellaneous plastics products	5.2	1.3	13.4	(D)	2.0	(D)	2.6	1.6	15
32	Stone, clay, and glass products	2.9	(D)	.7	1.1	(D)	(D)	(D)	(D)	33
33	Primary metal industries	9.1	4.9	2.2	1.9	(D)	(D)	(D)	(D)	15
34	Fabricated metal products	3.0	(D)	.7	(D)	.2		(Z)	.2	54
35	Industrial machinery and equipment	4.4	.2	1.8	2.4	.1			.1	17
36	Electronic and other electric equipment	6.5	1.0	2.4	3.1	(Z)	(Z)	(Z)	(Z)	33
37	Transportation equipment	8.4	(D)	1.6	(D)	.4	(Z)	(Z)	(Z)	21
39	Miscellaneous manufacturing industries	1.4	.4	.5	.5	(Z)	(Z)	(Z)	(Z)	8
	Missouri	287.6	79.2	111.6	96.8	33.7	16.3	4.1	13.3	4
20	Food and kindred products	37.3	6.6	23.3	7.5	4.0	1.4	2.0	.6	11
24	Lumber and wood products	2.0	.2	1.2	.7	(Z)	(Z)	(Z)	(Z)	12
25	Furniture and fixtures	3.1	.6	.2	2.2	(D)	(Z)	(Z)	(Z)	18
26	Paper and allied products	8.6	2.4	1.0	5.2	1.4	(Z)	(Z)	1.2	14
27	Printing and publishing	6.9	2.6	.8	3.4	3.5	2.3	(Z)	1.2	22
28	Chemicals and allied products	82.4	16.4	40.0	26.0	8.7	4.4	(Z)	(D)	7
30	Rubber and miscellaneous plastics products	4.5	.8	.9	2.8	.1	(Z)	(Z)	(D)	13
31	Leather and leather products	3.8	.1	3.1	.5	(D)	(Z)	(Z)	(Z)	20
32	Stone, clay, and glass products	14.4	10.2	2.0	2.3	2.7	2.7	(Z)	(Z)	10
33	Primary metal industries	41.6	25.6	6.6	9.4	(D)	(D)	(Z)	(Z)	17
34	Fabricated metal products	24.5	3.3	9.8	11.4	(D)	(D)	(Z)	(D)	9
35	Industrial machinery and equipment	5.4	.6	2.1	2.6	.2	(Z)	(Z)	(D)	34
36	Electronic and other electric equipment	17.0	2.9	8.4	5.7	.6	(Z)	(Z)	(D)	20
37	Transportation equipment	32.7	6.2	11.5	15.0	.7	(Z)	(Z)	(D)	6
38	Instruments and related products	1.0	.1	.3	.6	(Z)	(Z)	(Z)	(Z)	63
39	Miscellaneous manufacturing industries	1.7	.4	.3	1.0	.1	(Z)	(Z)	(Z)	39
	Montana	25.5	17.3	4.8	3.4	(D)	(D)	.1	(D)	(X)
24	Lumber and wood products	1.8	.6	.2	1.0	(Z)	(Z)	(Z)	(Z)	21
26	Paper and allied products	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	(X)
28	Chemicals and allied products	4.0	2.6	.9	.5	(D)	(D)	(Z)	(Z)	56
32	Stone, clay, and glass products	1.4	1.3	.1	(D)	(D)	(Z)	(Z)	(Z)	88
33	Primary metal industries	(D)	(D)	(Z)	(D)	(D)	(Z)	(Z)	(Z)	(X)
	Nebraska	60.0	12.8	23.6	23.5	6.7	1.0	1.7	4.0	12
20	Food and kindred products	17.9	2.3	11.3	4.2	1.1	1.1	.3	(D)	13
26	Paper and allied products	1.3	(Z)	.1	1.2	.9	(D)	(Z)	(D)	48
27	Printing and publishing	1.0	.2	.2	.6	(D)	(D)	(Z)	(D)	36
28	Chemicals and allied products	5.0	2.3	.5	2.2	.2	(Z)	(Z)	(Z)	40
30	Rubber and miscellaneous plastics products	2.3	(D)	(D)	1.6	(D)	(D)	(Z)	(Z)	8
31	Leather and leather products	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	(Z)	(X)
32	Stone, clay, and glass products	(D)	(D)	(Z)	(D)	(Z)	(Z)	(Z)	(Z)	(X)
33	Primary metal industries	4.2	2.4	(D)	(D)	.1	.1	(Z)	(Z)	26
34	Fabricated metal products	5.5	1.3	2.3	1.9	.5	.1	.1	.4	54
35	Industrial machinery and equipment	5.9	.3	2.6	3.1	3.1	(D)	1.3	(D)	32
36	Electronic and other electric equipment	9.1	.6	3.6	4.9	(D)	(Z)	(Z)	(D)	54
37	Transportation equipment	1.1	(D)	(D)	.8	(Z)	(Z)	(Z)	(Z)	13
38	Instruments and related products	1.3	(Z)	.4	.9	.1	(Z)	(Z)	(Z)	38
	Nevada	11.0	3.4	4.6	3.0	1.9	1.3	.1	.5	20
26	Paper and allied products	1.7	.3	.6	.9	.5	(Z)	(Z)	(Z)	98
27	Printing and publishing	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	(X)
28	Chemicals and allied products	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	(X)
30	Rubber and miscellaneous plastics products	1.6	.2	.9	.4	.1	(Z)	(Z)	(Z)	(X)
32	Stone, clay, and glass products	2.2	1.5	.6	.1	1.3	1.3	(Z)	(Z)	62
	New Hampshire	44.1	5.8	20.6	17.7	4.2	1.8	.5	1.9	30
20	Food and kindred products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	15
22	Textile mill products	1.1	.1	.7	.2	(Z)	(Z)	(D)	(Z)	(X)
26	Paper and allied products	12.1	1.3	8.6	2.2	.6	(Z)	(Z)	(Z)	10
27	Printing and publishing	1.2	(Z)	.4	.8	.1	(Z)	(Z)	(Z)	31
30	Rubber and miscellaneous plastics products	(D)	(D)	(D)	(D)	(D)	(Z)	(Z)	(Z)	32
32	Stone, clay, and glass products	2.0	.8	.3	.9	(Z)	(Z)	(Z)	(Z)	(X)
33	Primary metal industries	2.8	.2	1.0	1.6	(D)	(Z)	(Z)	(Z)	69
34	Fabricated metal products	5.0	.7	1.1	3.2	.5	(D)	(D)	(D)	17
35	Industrial machinery and equipment	2.5	.5	.5	1.4	.1	(Z)	(Z)	(D)	51
36	Electronic and other electric equipment	4.4	.5	2.4	1.5	.4	(Z)	(Z)	(Z)	30
37	Transportation equipment	4.0	.6	1.1	2.2	.6	(Z)	(Z)	(Z)	34
38	Instruments and related products	1.9	.2	.7	1.0	(Z)	(Z)	(Z)	(Z)	88
	New Jersey	673.8	146.6	285.7	241.5	40.9	18.0	9.4	13.5	37
20	Food and kindred products	47.1	4.2	32.0	10.9	1.5	(D)	(D)	.5	17
22	Textile mill products	7.1	.7	3.4	2.9	.2	(Z)	(Z)	(Z)	38
25	Furniture and fixtures	1.7	.3	.2	1.2	.1	(Z)	(Z)	(Z)	36
26	Paper and allied products	71.8	5.3	51.5	15.1	2.5	.1	.1	2.3	37
27	Printing and publishing	9.6	2.4	1.7	5.4	.6	(Z)	(Z)	.4	17
28	Chemicals and allied products	310.0	46.5	131.5	182.0	11.2	2.0	6.5	2.7	27
29	Petroleum and coal products	110.9	58.1	33.5	19.3	20.0	13.6	(D)	(D)	13
30	Rubber and miscellaneous plastics products	14.2	4.5	1.8	7.9	.2	(Z)	(Z)	(Z)	22
31	Leather and leather products	(D)	(Z)	(D)	(D)	(Z)	(Z)	(Z)	(Z)	(X)
32	Stone, clay, and glass products	17.0	3.6	7.3	6.2	.6	(Z)	(Z)	(Z)	31
33	Primary metal industries	19.7	8.5	5.0	6.2	.6	.3	.1	.2	25
34	Fabricated metal products	22.3	6.0	6.7	9.6	1.7	.1	.5	1.1	15
35	Industrial machinery and equipment	8.0	1.3	1.8	4.9	.1	(Z)	(Z)	(Z)	19
36	Electronic and other electric equipment	8.6	1.0	3.4	4.3	.6	.4	.1	.1	26
37	Transportation equipment	2.1	.2	.7	1.2	.1	(Z)	(Z)	(Z)	47
38	Instruments and related products	13.6	1.7	2.7	9.1	.4	(Z)	(Z)	(Z)	15
39	Miscellaneous manufacturing industries	(D)	2.2	(D)	(D)	.6	(D)	(Z)	(D)	(X)

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992

- Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols)

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
	New Mexico	63.4	34.2	11.4	17.8	3.3	2.4	.1	.8	42
24	Lumber and wood products	1.0	.3	.4	.3	(Z)	(Z)	(Z)	(Z)	25
29	Petroleum and coal products	29.6	10.4	7.4	11.9	(D)	(D)	.1	.8	90
32	Stone, clay, and glass products	1.6	.7	.6	.7	(D)	(D)	-	-	68
33	Primary metal industries	(D)	(D)	(D)	(D)	(Z)	(Z)	-	(Z)	(X)
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(Z)	(Z)	-	(Z)	(X)
	New York	650.6	115.5	235.6	299.4	49.2	14.1	8.0	27.0	5
20	Food and kindred products	63.3	2.0	39.1	22.1	3.1	(D)	(D)	1.8	14
22	Textile mill products	5.1	.5	3.3	1.3	.1	(Z)	(Z)	(Z)	40
24	Lumber and wood products	4.9	2.1	.4	2.4	1.0	(Z)	(Z)	.9	53
25	Furniture and fixtures	4.4	.7	.6	.2	.2	(Z)	(Z)	.1	23
26	Paper and allied products	71.5	8.3	39.0	24.2	5.5	.5	2.1	2.9	22
27	Printing and publishing	12.7	2.3	1.7	8.7	3.4	(D)	(D)	2.0	15
28	Chemicals and allied products	90.1	14.4	37.0	38.7	5.4	.7	.2	.2	17
30	Rubber and miscellaneous plastics products	14.1	2.8	1.9	9.5	1.1	.1	-	(Z)	14
31	Leather and leather products	6.6	.9	3.8	1.9	.1	.5	(Z)	1.9	46
32	Stone, clay, and glass products	29.1	12.1	5.5	11.5	2.5	-	-	1.9	7
33	Primary metal industries	67.5	28.7	16.3	22.6	13.2	8.5	.1	4.6	19
34	Fabricated metal products	39.3	4.6	15.4	19.3	1.3	.2	.4	.8	16
35	Industrial machinery and equipment	43.4	6.5	16.7	20.2	1.8	.2	.4	1.2	7
36	Electronic and other electric equipment	40.4	8.5	16.8	15.2	(D)	(Z)	(D)	.2	10
37	Transportation equipment	34.3	7.2	10.4	16.7	(D)	(Z)	(D)	4.8	11
38	Instruments and related products	115.5	12.0	26.0	78.5	6.6	.1	1.6	4.4	6
39	Miscellaneous manufacturing industries	6.7	1.5	1.6	3.6	.5	.1	(Z)	.4	11
	North Carolina	554.4	185.5	213.2	155.6	43.6	13.3	3.7	26.6	3
20	Food and kindred products	56.2	6.1	44.5	5.7	4.6	.6	1.4	2.6	15
21	Tobacco products	17.1	8.0	3.3	5.8	.1	-	(Z)	.1	11
22	Textile mill products	86.3	15.2	52.5	18.6	4.6	.4	4.4	3.7	7
24	Lumber and wood products	13.9	6.5	1.7	5.7	.7	.1	(Z)	.5	13
25	Furniture and fixtures	26.6	12.0	2.1	12.6	2.4	1.3	.2	.9	15
26	Paper and allied products	121.1	(D)	18.8	(D)	5.7	(D)	(D)	(D)	2
27	Printing and publishing	6.8	2.3	1.2	3.3	.4	(Z)	(Z)	.3	20
28	Chemicals and allied products	110.8	22.8	56.0	32.0	9.9	1.6	(D)	7.4	6
30	Rubber and miscellaneous plastics products	17.8	7.0	2.3	8.4	3.2	(Z)	(D)	1.6	9
32	Stone, clay, and glass products	17.0	6.9	4.5	5.6	2.2	(Z)	(Z)	(D)	7
33	Primary metal industries	14.2	2.7	2.3	9.2	3.1	3.1	(Z)	(Z)	34
34	Fabricated metal products	12.1	3.2	4.9	4.1	1.3	(D)	(Z)	3.8	18
35	Industrial machinery and equipment	16.0	1.2	5.9	8.9	3.9	1.0	(Z)	.2	21
36	Electronic and other electric equipment	20.3	3.2	7.5	9.6	1.2	(Z)	(Z)	.1	29
37	Transportation equipment	8.9	.8	2.9	5.2	.2	.1	(Z)	(Z)	38
38	Instruments and related products	6.5	1.6	2.4	2.5	(Z)	-	-	.1	29
39	Miscellaneous manufacturing industries	1.5	(D)	.4	(D)	.1	-	-	.1	44
	North Dakota	19.3	4.4	6.8	8.1	.3	.1	.2	.1	52
20	Food and kindred products	5.1	1.3	2.7	1.1	.2	-	.2	(Z)	34
29	Petroleum and coal products	12.6	2.8	4.0	5.8	.1	.1	-	(Z)	78
	Ohio	1 030.8	271.6	365.9	393.4	45.2	16.6	11.1	17.8	4
20	Food and kindred products	55.9	13.5	33.3	9.1	2.4	1.0	.8	.7	23
22	Textile mill products	3.8	1.6	.3	1.9	.3	.3	(D)	(D)	37
24	Lumber and wood products	6.2	2.2	.8	3.2	.3	.1	-	(Z)	19
25	Furniture and fixtures	(D)	(D)	5	(D)	(D)	(D)	-	.5	(X)
26	Paper and allied products	55.0	10.3	27.3	17.4	2.8	2.3	-	-	16
27	Printing and publishing	7.8	2.9	.9	3.9	.9	(Z)	(Z)	.8	17
28	Chemicals and allied products	225.7	26.6	76.2	122.9	8.2	2.2	2.2	3.8	11
29	Petroleum and coal products	(D)	(D)	13.6	(D)	(D)	(Z)	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	38.9	7.3	6.7	24.8	1.9	(Z)	(Z)	1.8	10
32	Stone, clay, and glass products	50.0	20.4	11.7	17.9	4.7	1.6	.9	2.2	9
33	Primary metal industries	266.5	110.7	95.6	60.3	8.6	3.8	2.7	2.1	4
34	Fabricated metal products	77.2	14.4	30.4	32.4	1.5	.2	1.0	.3	8
35	Industrial machinery and equipment	45.9	7.3	16.7	22.0	3.9	.5	.4	3.1	7
36	Electronic and other electric equipment	34.8	4.1	17.1	13.6	.8	.1	.2	.5	21
37	Transportation equipment	108.9	34.9	33.3	40.7	1.1	(Z)	(Z)	1.0	6
38	Instruments and related products	2.1	.2	.5	1.3	(Z)	(Z)	-	(Z)	41
39	Miscellaneous manufacturing industries	1.8	.6	.3	.9	(Z)	(Z)	-	(Z)	31
	Oklahoma	117.0	37.5	42.8	36.7	22.0	2.1	10.9	9.0	9
20	Food and kindred products	6.0	1.6	3.0	1.4	.2	.1	.1	(Z)	29
26	Paper and allied products	12.4	2.5	7.3	2.6	.1	(D)	(D)	(Z)	29
27	Printing and publishing	.1	.1	1.1	1.1	(D)	(Z)	(D)	(Z)	18
28	Chemicals and allied products	2.4	2.2	3.3	1.7	.9	(D)	2.8	.2	25
29	Petroleum and coal products	30.3	14.9	11.1	4.3	3.3	.3	-	.2	21
30	Rubber and miscellaneous plastics products	5.9	1.3	1.4	3.2	(D)	(D)	(D)	(D)	18
32	Stone, clay, and glass products	6.6	3.2	1.3	2.0	(D)	(Z)	(D)	(D)	18
33	Primary metal industries	15.0	4.8	4.5	5.6	.3	(Z)	(Z)	3.3	33
34	Fabricated metal products	10.8	1.3	2.9	6.6	14.9	(Z)	(Z)	7.4	39
35	Industrial machinery and equipment	4.1	.2	1.8	2.1	.7	(Z)	(Z)	.7	30
36	Electronic and other electric equipment	2.1	(D)	(D)	1.1	(Z)	(Z)	-	(Z)	9
37	Transportation equipment	10.2	(D)	(D)	3.8	(Z)	(Z)	-	(Z)	2
38	Instruments and related products	2.8	(D)	(D)	1.1	(Z)	(Z)	-	(Z)	16
	Oregon	170.3	48.3	76.8	45.2	10.7	4.8	.5	5.5	8
20	Food and kindred products	25.0	1.1	20.4	3.4	.4	.1	(Z)	.2	24
24	Lumber and wood products	20.2	8.4	3.1	8.7	1.4	.3	(D)	(D)	9
26	Paper and allied products	48.8	20.3	23.2	5.3	.9	-	-	.9	11
27	Printing and publishing	1.7	.7	.2	.8	.6	(D)	(D)	.5	25
28	Chemicals and allied products	4.5	1.5	2.0	1.1	.6	(D)	(D)	.5	24

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992

-Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/ contained waste	Total	Air	Water	Solid/ contained waste	
Oregon—Con.										
30	Rubber and miscellaneous plastics products	1.8	.2	.4	1.1	-	-	-	-	55
32	Stone, clay, and glass products	2.0	.9	.2	.9	.1	(Z)	-	.1	33
33	Primary metal industries	29.2	6.3	12.2	10.7	.6	(Z)	(D)	(D)	20
34	Fabricated metal products	4.6	.8	1.5	2.3	.3	(Z)	(Z)	.2	45
35	Industrial machinery and equipment	7.9	1.9	2.3	3.7	.2	(Z)	(Z)	.2	39
36	Electronic and other electric equipment	15.9	4.9	7.5	3.5	1.3	(Z)	(Z)	1.2	41
37	Transportation equipment	1.1	(Z)	.1	1.0	(Z)	-	(Z)	(Z)	40
38	Instruments and related products	6.4	1.0	3.5	1.9	.1	(Z)	(Z)	(Z)	46
	Pennsylvania	890.9	256.9	295.4	338.6	97.1	21.1	33.1	42.9	5
20	Food and kindred products	59.0	3.9	34.2	20.9	1.9	(Z)	.5	1.3	12
22	Textile mill products	11.0	.4	8.0	2.6	.3	.1	(Z)	.2	36
24	Lumber and wood products	8.0	2.3	1.8	3.9	.3	.1	.1	.1	19
25	Furniture and fixtures	7.5	3.1	.8	3.6	1.1	(D)	(Z)	(D)	24
26	Paper and allied products	91.0	24.8	29.7	36.4	19.0	(D)	(D)	10.4	14
27	Printing and publishing	14.5	5.3	2.4	6.8	2.6	.3	.2	2.1	12
28	Chemicals and allied products	160.7	39.1	64.2	57.3	(D)	(D)	(D)	7.7	12
29	Petroleum and coal products	77.9	34.9	20.6	22.5	20.2	(D)	10.6	(D)	2
30	Rubber and miscellaneous plastics products	14.0	1.7	3.6	8.7	1.5	.2	.5	.8	19
31	Leather and leather products	11.4	1.1	4.8	5.6	(Z)	(Z)	-	(Z)	45
32	Stone, clay, and glass products	47.4	23.4	8.6	15.4	5.2	1.9	.8	2.4	8
33	Primary metal industries	233.6	85.6	68.2	79.7	11.9	2.0	3.4	6.5	11
34	Fabricated metal products	42.8	7.8	14.0	21.0	1.4	.3	.3	.9	12
35	Industrial machinery and equipment	19.2	1.6	7.0	10.6	.7	(Z)	.1	.5	15
36	Electronic and other electric equipment	32.3	3.9	15.5	12.9	1.5	.1	.5	.9	8
37	Transportation equipment	25.7	6.6	6.8	12.2	7.9	.1	.1	7.7	15
38	Instruments and related products	17.1	4.9	2.8	9.4	.8	(D)	(Z)	(D)	13
39	Miscellaneous manufacturing industries	17.8	6.4	2.3	9.1	(D)	(Z)	(Z)	(D)	7
	Rhode Island	31.0	5.9	12.1	13.0	.7	.2	.2	.3	13
22	Textile mill products	2.4	.4	1.6	.5	(Z)	-	-	(Z)	28
26	Paper and allied products	4.2	.9	.2	3.1	-	-	-	-	66
28	Chemicals and allied products	(D)	(D)	(D)	1.8	(Z)	(Z)	(Z)	(Z)	(X)
32	Stone, clay, and glass products	(D)	(D)	(D)	.3	(Z)	-	-	-	(X)
33	Primary metal industries	2.2	.4	.4	1.4	.1	(Z)	(Z)	.1	31
34	Fabricated metal products	3.1	.9	1.4	.7	.1	(Z)	(Z)	(Z)	25
36	Electronic and other electric equipment	2.8	.6	1.1	1.1	.1	(Z)	(Z)	.1	63
39	Miscellaneous manufacturing industries	5.8	.9	2.5	2.4	.4	.1	.1	.1	18
	South Carolina	360.1	104.1	140.7	115.3	26.7	14.3	2.1	10.3	7
20	Food and kindred products	6.9	1.0	4.5	1.4	.4	.1	.1	.2	32
22	Textile mill products	36.1	4.8	22.7	8.6	2.1	.2	.4	1.5	11
24	Lumber and wood products	3.5	1.3	1.1	1.1	.8	(Z)	(D)	(D)	10
25	Furniture and fixtures	(D)	(D)	(D)	.6	.5	(Z)	-	.5	(X)
26	Paper and allied products	64.4	20.1	16.9	27.4	15.7	10.6	(D)	(D)	4
27	Printing and publishing	(D)	(D)	(D)	.2	-	-	-	-	(X)
28	Chemicals and allied products	149.4	39.4	71.7	38.3	3.0	1.4	.6	1.0	13
30	Rubber and miscellaneous plastics products	9.9	3.3	2.8	3.8	(D)	.1	(D)	.1	9
32	Stone, clay, and glass products	11.8	6.7	3.0	2.2	(D)	(D)	(D)	(D)	4
33	Primary metal industries	19.4	9.0	2.8	7.6	.2	.1	(Z)	(Z)	17
34	Fabricated metal products	6.4	1.1	2.3	3.1	(Z)	(Z)	(Z)	(Z)	29
35	Industrial machinery and equipment	9.5	.9	3.2	5.4	.1	(Z)	(Z)	(Z)	16
36	Electronic and other electric equipment	16.3	4.4	6.4	5.5	.5	.2	(Z)	.3	26
37	Transportation equipment	21.2	9.9	2.1	9.2	.3	(D)	(Z)	(D)	71
39	Miscellaneous manufacturing industries	1.3	(Z)	.7	.5	(Z)	-	-	(Z)	42
	South Dakota	16.5	2.9	6.3	7.3	.2	.1	.1	.1	33
20	Food and kindred products	6.7	.7	4.0	2.1	-	-	-	-	45
33	Primary metal industries	1.4	.3	.7	.4	-	-	-	-	81
34	Fabricated metal products	4.1	.2	(D)	(D)	.1	(Z)	(Z)	(Z)	98
38	Instruments and related products	2.3	1.2	(D)	(D)	-	-	-	-	50
	Tennessee	441.0	99.0	189.8	152.2	62.1	19.1	22.1	20.9	6
20	Food and kindred products	32.7	6.6	18.0	8.1	2.1	-	1.5	.6	8
22	Textile mill products	10.8	1.4	5.8	3.6	.5	.3	(Z)	.2	8
24	Lumber and wood products	3.3	.3	.3	2.7	.4	(D)	(Z)	(D)	41
25	Furniture and fixtures	3.8	1.3	.3	2.1	.2	-	-	.2	29
26	Paper and allied products	41.7	7.3	18.8	15.5	8.1	5.1	.4	2.6	14
27	Printing and publishing	14.5	8.6	1.6	4.4	4.3	(D)	(Z)	(D)	20
28	Chemicals and allied products	174.7	26.2	87.5	61.0	21.0	(D)	(D)	1.9	2
29	Petroleum and coal products	10.4	6.4	2.1	1.9	1.3	.6	.7	(Z)	53
30	Rubber and miscellaneous plastics products	11.8	2.4	2.9	6.5	.9	(D)	(Z)	(D)	16
32	Stone, clay, and glass products	14.3	8.7	2.5	3.0	(D)	-	-	(D)	35
33	Primary metal industries	37.1	11.1	14.4	11.6	(D)	(D)	.1	(D)	11
34	Fabricated metal products	15.3	1.8	8.3	5.3	.3	(Z)	(Z)	.2	28
35	Industrial machinery and equipment	11.4	1.1	4.2	6.1	1.9	(D)	.2	(D)	9
36	Electronic and other electric equipment	10.3	2.3	3.5	4.4	.2	(Z)	(Z)	.2	16
37	Transportation equipment	43.5	12.7	17.6	13.2	5.3	(D)	(D)	(D)	44
39	Miscellaneous manufacturing industries	4.0	.4	1.5	2.1	.1	(Z)	(Z)	.1	26
	Texas	2 092.2	791.7	753.7	546.8	319.8	221.1	34.3	64.3	2
20	Food and kindred products	79.6	16.5	47.1	16.0	6.0	1.2	2.1	2.8	15
22	Textile mill products	1.0	(D)	.6	(D)	(Z)	-	-	(Z)	2
24	Lumber and wood products	13.1	4.8	5.1	3.3	.3	.1	(Z)	.2	31
25	Furniture and fixtures	2.3	.7	.2	1.4	.1	(Z)	(Z)	(Z)	36
26	Paper and allied products	68.1	20.7	21.4	26.0	8.8	6.6	.2	2.0	14

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992

—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
Texas—Con.										
27	Printing and publishing	9.8	2.6	2.0	5.2	1.6	.1	.3	1.2	13
28	Chemicals and allied products	921.3	253.2	384.6	283.5	110.0	62.3	6.7	41.0	4
29	Petroleum and coal products	723.0	402.4	220.2	100.3	150.2	118.2	23.8	8.2	4
30	Rubber and miscellaneous plastics products	23.2	4.5	4.8	13.9	2.2	1.2	.4	.6	15
31	Leather and leather products	1.8	.1	1.1	.6	(D)	(Z)	(D)	(Z)	38
32	Stone, clay, and glass products	30.5	16.1	5.1	9.3	4.7	4.4	(Z)	.2	16
33	Primary metal industries	63.9	42.3	10.5	11.1	(D)	(D)	(Z)	.5	5
34	Fabricated metal products	45.6	4.6	10.8	30.2	1.2	(D)	(D)	(D)	19
35	Industrial machinery and equipment	12.8	1.8	3.5	7.5	1.2	.4	.2	.7	14
36	Electronic and other electric equipment	45.6	9.2	20.1	16.4	1.2	.1	.2	1.0	11
37	Transportation equipment	36.4	10.4	12.1	14.0	(D)	.1	(Z)	(D)	12
38	Instruments and related products	12.8	1.6	4.2	7.0	(Z)	(Z)	(Z)	(Z)	12
39	Miscellaneous manufacturing industries	1.5	(D)	.4	(D)	.2	(Z)	.1	.1	38
Utah		123.4	52.4	31.8	39.1	11.0	9.5	.1	1.4	22
20	Food and kindred products	4.5	.3	3.7	.5	.1	(Z)	(Z)	(Z)	46
29	Petroleum and coal products	25.7	10.8	6.9	8.1	.7	.4	—	.4	86
30	Rubber and miscellaneous plastics products	1.0	.2	(D)	(D)	.1	(Z)	(Z)	.1	70
32	Stone, clay, and glass products	1.9	1.1	.3	.5	.5	(Z)	(Z)	.5	46
33	Primary metal industries	50.1	34.7	(D)	(D)	9.0	9.0	(Z)	—	23
36	Electronic and other electric equipment	4.8	.3	2.7	1.8	(Z)	—	—	(Z)	57
37	Transportation equipment	30.1	4.0	11.5	14.5	.2	(Z)	(Z)	.2	30
Vermont		17.5	2.9	5.9	8.8	(D)	.1	.1	(D)	24
20	Food and kindred products	1.1	.1	.8	.2	(Z)	(Z)	—	(Z)	97
34	Fabricated metal products	1.7	.5	.4	.8	.1	(Z)	(Z)	.1	21
36	Electronic and other electric equipment	6.7	1.4	2.8	2.5	(D)	(Z)	(Z)	(D)	17
37	Transportation equipment	5.1	.6	1.4	3.0	.2	—	.1	.1	75
38	Instruments and related products	1.0	.2	.3	.5	—	—	—	—	72
Virginia		334.4	93.5	139.3	101.6	48.1	32.5	2.5	13.1	8
20	Food and kindred products	26.9	1.7	19.9	5.3	2.3	.7	1.0	.6	13
21	Tobacco products	(D)	(D)	(D)	(D)	(D)	—	—	(D)	(X)
22	Textile mill products	17.4	2.8	12.4	2.2	1.4	.1	.9	.4	13
24	Lumber and wood products	18.9	7.8	4.7	6.3	.4	(Z)	(Z)	.3	42
25	Furniture and fixtures	7.1	4.5	.9	1.7	(Z)	(Z)	(Z)	(Z)	34
26	Paper and allied products	67.4	23.9	27.8	15.7	4.7	1.6	(Z)	3.0	12
27	Printing and publishing	(D)	(D)	(D)	3.1	1.1	.1	(Z)	1.0	(X)
28	Chemicals and allied products	78.0	19.8	34.6	23.6	(D)	(D)	(Z)	(D)	10
29	Petroleum and coal products	23.0	10.5	7.4	5.1	2.8	2.6	.2	—	82
30	Rubber and miscellaneous plastics products	10.2	2.5	3.3	4.5	.5	(Z)	(Z)	.5	27
32	Stone, clay, and glass products	6.1	2.4	1.8	1.9	(Z)	(Z)	—	(Z)	20
33	Primary metal industries	10.7	2.5	1.9	6.3	.8	(D)	(Z)	(D)	24
34	Fabricated metal products	6.0	.6	2.3	3.2	.4	—	—	.4	31
35	Industrial machinery and equipment	7.0	.9	1.8	4.3	.9	.6	(Z)	.4	22
36	Electronic and other electric equipment	12.3	(D)	(D)	4.9	.5	—	(D)	(D)	5
37	Transportation equipment	22.9	(D)	8.5	(D)	(D)	(Z)	(D)	(D)	13
38	Instruments and related products	4.4	.6	2.0	1.8	.2	—	—	.2	30
Washington		368.2	124.1	132.2	111.9	63.8	47.7	4.4	11.7	6
20	Food and kindred products	27.1	.6	20.1	6.5	.9	(Z)	.5	.4	15
22	Textile mill products	1.3	.2	.8	.4	.1	(Z)	(Z)	—	41
24	Lumber and wood products	15.8	3.4	2.8	9.6	.3	.1	(Z)	.1	19
25	Furniture and fixtures	1.4	—	—	1.4	(Z)	—	—	(Z)	77
26	Paper and allied products	107.2	22.9	66.3	18.0	13.0	9.3	(D)	(D)	11
27	Printing and publishing	1.2	.1	.3	.8	.2	(Z)	(Z)	.2	41
28	Chemicals and allied products	11.7	3.3	5.6	2.8	.4	.1	.2	(Z)	35
29	Petroleum and coal products	42.6	29.2	7.9	7.9	9.8	8.5	1.0	.3	27
30	Rubber and miscellaneous plastics products	2.0	.3	.5	1.2	—	.1	—	—	47
32	Stone, clay, and glass products	8.1	4.8	1.5	1.8	.2	—	(Z)	.1	31
33	Primary metal industries	78.0	49.9	13.5	14.7	29.3	(D)	—	(D)	10
34	Fabricated metal products	4.6	1.0	1.6	2.1	(Z)	—	—	(Z)	18
35	Industrial machinery and equipment	3.6	.4	1.2	2.0	.6	.2	.1	.3	37
36	Electronic and other electric equipment	6.9	1.8	3.2	2.0	4.7	.2	.2	4.3	30
37	Transportation equipment	(D)	(D)	8.0	(D)	(D)	(D)	—	(D)	(X)
38	Instruments and related products	2.1	.1	.9	1.1	(Z)	(Z)	—	—	22
39	Miscellaneous manufacturing industries	(D)	(D)	.5	(D)	(D)	.2	(D)	.2	(X)
West Virginia		283.6	75.9	124.1	83.5	15.4	3.0	6.7	5.7	17
20	Food and kindred products	2.3	—	2.0	.2	—	—	—	—	47
22	Textile mill products	1.2	—	.4	.7	—	—	—	—	91
24	Lumber and wood products	(D)	(D)	.5	(D)	(D)	.1	(Z)	(D)	(X)
28	Chemicals and allied products	152.7	20.8	79.9	52.0	8.2	(D)	(D)	2.1	22
29	Petroleum and coal products	(D)	(D)	(Z)	(D)	—	—	—	—	(X)
32	Stone, clay, and glass products	4.6	2.3	.6	1.8	(D)	(D)	—	(Z)	18
33	Primary metal industries	108.7	49.6	36.8	22.3	5.5	(D)	(D)	2.9	29
34	Fabricated metal products	4.6	1.2	1.8	1.7	(Z)	(Z)	(Z)	(Z)	35
35	Industrial machinery and equipment	2.7	.2	.8	1.7	(D)	—	—	(D)	68
Wisconsin		394.1	83.1	176.1	134.9	26.3	6.7	2.1	17.5	10
20	Food and kindred products	47.7	1.8	34.0	11.9	5.0	.1	.8	4.2	14
24	Lumber and wood products	7.5	2.9	.9	3.7	.7	.1	(Z)	.6	16
25	Furniture and fixtures	4.0	1.5	.4	2.1	.9	.2	(Z)	.6	38
26	Paper and allied products	185.7	35.1	101.4	49.3	7.8	.5	.3	6.9	20
27	Printing and publishing	11.8	6.4	1.3	4.1	4.3	(D)	(Z)	(D)	7
28	Chemicals and allied products	14.0	2.0	3.6	8.5	1.4	.1	(Z)	1.3	18
30	Rubber and miscellaneous plastics products	6.9	1.8	.9	4.2	(Z)	(Z)	—	(Z)	24
31	Leather and leather products	5.7	(D)	4.2	(D)	(D)	—	(D)	—	26
32	Stone, clay, and glass products	7.0	1.9	1.2	3.8	.6	.4	(Z)	.2	42
33	Primary metal industries	29.4	13.6	5.2	10.6	.6	.5	.1	.1	7

Table 9. Operating Costs and Cost Offsets by States and Major Groups for All Media: 1992
- Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major group are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	PAOC				Cost offsets				Standard error of estimate (PAOC) (percent)
		Total	Air	Water	Solid/contained waste	Total	Air	Water	Solid/contained waste	
Wisconsin - Con.										
34	Fabricated metal products.....	23.6	7.3	9.1	7.3					
35	Industrial machinery and equipment.....	24.9	3.0	6.9	15.1	.7	(Z)	.1	.6	13
36	Electronic and other electric equipment.....	10.5	2.3	3.4	4.8	.9	(Z)	(Z)	.7	34
37	Transportation equipment.....	8.5	2.5	2.2	4.8	.1	(Z)	(Z)	.1	15
38	Instruments and related products.....	4.3	.5	.9	3.8	2.8	(D)	(D)	(D)	23
39	Miscellaneous manufacturing industries.....	1.7	(D)	.4	2.9	.1	(Z)	(Z)	(Z)	26
	Wyoming.....	28.7	15.5	9.8	3.3	4.9	1.4	3.4	(Z)	23
20	Food and kindred products.....	4.1	.3	2.8	1.1	-	-	-	-	17
28	Chemicals and allied products.....	(D)	(D)	(D)	.4	1.1	1.1	-	-	75
29	Petroleum and coal products.....	4.6	1.4	2.1	1.2	3.8	.3	3.4	(Z)	(X)
32	Stone, clay, and glass products.....	(D)	(D)	(D)	.2	(Z)	(Z)	(Z)	(Z)	79

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 10a. Operating Costs by States for the Media Air: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Total PAOC	Air		Standard error of estimate (PAOC) (percent)	
		Total	Type of pollutant abated		
			Hazardous		Nonhazardous
United States¹.....	17 466.4	5 395.0	1 610.2	3 784.8	2
Alabama.....	380.0	136.2			
Alaska.....	31.4	8.2	31.3	104.9	6
Arizona.....	129.4	66.4	(D)	(D)	21
Arkansas.....	208.1	56.2	44.1	22.2	10
California.....	1 492.6	490.3	18.1	38.1	11
Colorado.....	83.5	11.3	156.2	334.2	4
Connecticut.....	168.5	23.6	5.6	5.8	12
Delaware.....	145.5	67.9	11.4	12.1	5
District of Columbia.....	1.4	.3	5.4	62.5	15
Florida.....	304.3	81.6	(Z)	.3	40
Georgia.....	375.7	118.4	12.6	69.0	5
Hawaii.....	12.8	3.3	38.0	80.4	6
Idaho.....	60.4	21.3	.7	2.6	33
Illinois.....	896.1	322.5	2.9	18.4	13
Indiana.....	706.6	255.2	88.6	233.9	6
Iowa.....	186.9	53.3	68.1	189.2	3
Kansas.....	107.3	29.0	7.3	46.0	7
Kentucky.....	324.8	138.4	8.9	20.1	11
Louisiana.....	920.0	317.3	34.2	104.3	5
Maine.....	123.5	21.2	92.1	225.2	5
Maryland.....	205.6	55.4	3.2	18.0	10
Massachusetts.....	246.2	34.3	9.6	45.8	6
Michigan.....	763.0	220.2	15.2	19.1	7
Minnesota.....	254.5	72.2	75.8	144.4	3
Mississippi.....	269.1	120.9	11.7	60.5	6
Missouri.....	287.6	79.2	23.5	97.4	7
Montana.....	25.5	17.3	28.6	50.6	4
Nebraska.....	60.0	12.8	(D)	(D)	12
Nevada.....	11.0	3.4	3.9	8.9	12
New Hampshire.....	44.1	5.8	1.0	2.4	20
New Jersey.....	673.8	146.6	2.1	3.6	15
New Mexico.....	63.4	34.2	50.3	96.3	13
New York.....	650.6	115.5	(D)	(D)	42
North Carolina.....	554.4	185.5	38.5	77.1	5
North Dakota.....	19.3	4.4	30.0	155.5	3
Ohio.....	1 030.8	271.6	2.8	1.6	52
Oklahoma.....	117.0	37.5	56.6	215.0	4
Oregon.....	170.3	48.3	10.4	27.1	9
Pennsylvania.....	890.9	256.9	10.7	37.6	8
Rhode Island.....	31.0	5.9	73.4	183.5	5
South Carolina.....	360.1	104.1	3.5	2.4	13
South Dakota.....	16.5	2.9	37.2	68.9	7
Tennessee.....	441.0	99.0	.3	2.6	33
Texas.....	2 092.2	791.7	35.3	63.7	6
Utah.....	123.4	52.4	328.9	462.8	2
Vermont.....	17.5	2.9	16.1	36.3	22
Virginia.....	334.4	93.5	1.6	1.3	24
Washington.....	368.2	124.1	24.9	68.6	8
West Virginia.....	283.6	75.9	31.7	82.4	6
Wisconsin.....	384.1	83.1	13.5	62.4	17
Wyoming.....	28.7	15.5	18.1	65.1	10
			.3	15.2	17

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 10b. Operating Costs by States for the Media Water: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Water						Standard error of estimate (PAOC) (percent)
	Total PAOC	Type of pollutant abated					
		Total	Hazardous	Nonhazardous			
				Total	Payments to industry	Sewage services payments to government	
United States ¹	17 466.4	6 576.9	1 701.5	4 875.3	3 618.5	1 256.9	2
Alabama	380.0	146.7	33.0	113.7	97.6	18.0	6
Alaska	31.4	14.7	(D)	(D)	11.5	(D)	21
Arizona	129.4	36.0	13.8	22.2	14.6	7.5	10
Arkansas	208.1	92.3	12.2	80.1	65.9	14.2	11
California	1 492.6	584.1	179.5	404.6	263.8	140.8	4
Colorado	83.5	44.5	15.1	29.4	23.4	6.0	12
Connecticut	168.5	52.8	25.6	27.2	21.1	6.1	5
Delaware	145.5	54.1	4.8	49.3	42.0	7.3	15
District of Columbia	1.4	.4	(Z)	.4	.1	.3	40
Florida	304.3	125.4	20.3	105.1	84.1	21.0	5
Georgia	375.7	152.3	26.8	125.5	94.0	31.5	6
Hawaii	12.8	4.6	1.5	3.1	2.5	.6	33
Idaho	60.4	29.9	3.3	20.6	17.5	3.2	13
Illinois	896.1	297.0	68.1	228.9	155.6	73.3	6
Indiana	706.6	253.2	72.5	180.7	135.2	45.5	3
Iowa	166.9	60.0	9.5	50.5	33.3	17.2	7
Kansas	107.3	37.0	8.6	28.4	22.4	6.1	11
Kentucky	324.8	102.2	34.6	67.6	49.2	18.4	5
Louisiana	920.0	347.6	107.7	239.9	235.3	4.6	5
Maine	123.5	60.7	3.4	57.3	50.7	6.7	10
Maryland	205.6	80.5	10.1	70.4	49.1	21.3	6
Massachusetts	246.2	106.9	38.0	68.9	37.5	31.3	7
Michigan	763.0	290.8	72.1	218.7	154.3	64.4	3
Minnesota	254.5	102.5	12.9	89.5	52.4	37.1	6
Mississippi	269.1	86.1	28.0	58.1	51.2	6.9	7
Missouri	287.6	111.6	38.9	72.7	44.9	27.8	4
Montana	25.5	4.8	.7	4.0	4.0	(Z)	12
Nebraska	60.0	23.6	6.8	16.9	9.3	7.6	12
Nevada	11.0	4.6	(D)	(D)	2.7	(D)	20
New Hampshire	44.1	20.6	3.9	16.7	13.0	3.7	15
New Jersey	673.8	285.7	70.5	215.2	120.7	94.5	13
New Mexico	63.4	11.4	5.8	5.5	5.0	.5	42
New York	850.6	235.6	68.4	167.2	112.5	54.7	5
North Carolina	554.4	213.2	33.7	179.6	115.7	63.9	3
North Dakota	19.3	6.8	3.6	3.3	2.9	.4	52
Ohio	1 030.8	365.9	81.4	284.5	197.3	87.2	4
Oklahoma	117.0	42.8	12.5	30.3	23.9	6.4	9
Oregon	170.3	76.8	18.0	58.7	46.2	12.6	8
Pennsylvania	890.9	295.4	80.8	214.6	155.6	59.0	5
Rhode Island	31.0	12.1	3.4	8.7	5.8	2.9	13
South Carolina	360.1	140.7	35.5	105.2	81.9	23.3	7
South Dakota	16.5	6.3	.8	5.5	2.6	2.9	33
Tennessee	441.0	189.8	48.6	141.2	104.0	37.2	6
Texas	2 092.2	753.7	268.4	485.3	417.0	68.3	2
Utah	123.4	31.8	15.0	16.8	11.5	5.3	22
Vermont	17.5	5.9	1.4	4.5	2.7	1.8	24
Virginia	334.4	139.3	24.5	114.7	84.3	30.4	8
Washington	368.2	132.2	19.6	112.6	90.5	22.1	6
West Virginia	283.6	124.1	37.1	87.0	82.2	4.8	17
Wisconsin	394.1	176.1	14.4	161.7	110.1	51.6	10
Wyoming	28.7	9.8	1.8	8.0	7.9	.1	17

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 10c. Operating Costs by States for the Media Solid/Contained Waste: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Solid/contained waste						Standard error of estimate (PAOC) (percent)
	Total PAOC	Type of pollutant abated					
		Total	Hazardous	Nonhazardous			
				Total	Payments to industry	Solid/contained waste collection payments to government	
United States ¹	17 466.4	5 494.4	2 157.1	3 337.4	2 965.0	372.4	2
Alabama	380.0	97.1	32.4	64.7	58.5	6.1	6
Alaska	31.4	8.5	2.1	6.5	6.0	.4	21
Arizona	129.4	27.1	12.6	14.5	12.9	1.6	10
Arkansas	208.1	59.5	12.8	46.8	39.6	7.2	11
California	1 492.6	418.2	208.1	210.1	164.3	45.8	4
Colorado	83.5	27.7	13.7	13.9	12.0	1.9	12
Connecticut	168.5	92.1	48.2	43.9	40.8	3.1	5
Delaware	145.5	23.5	8.8	14.7	12.8	1.9	15
District of Columbia	1.4	.7	.1	.6	.6	(Z)	40
Florida	304.3	97.3	25.2	72.1	59.0	13.1	5

Table 10c. Operating Costs by States for the Media Solid/Contained Waste: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Solid/contained waste							Standard error of estimate (PAOC) (percent)
	Total PAOC	Type of pollutant abated						
		Total	Hazardous	Nonhazardous				
				Total	Payments to industry	Solid/contained waste collection payments to government		
Georgia	375.7	105.0	30.3	74.6	65.3	9.4	6	
Hawaii	12.8	4.9	.9	3.9	3.9	.1	33	
Idaho	60.4	15.2	1.6	13.6	12.7	.9	13	
Illinois	896.1	276.7	90.4	186.3	175.5	10.8	6	
Indiana	706.6	198.2	66.2	132.0	123.9	8.2	3	
Iowa	166.9	53.6	16.4	37.2	30.2	7.1	7	
Kansas	107.3	41.3	18.8	22.5	19.0	3.5	11	
Kentucky	324.8	84.1	31.1	53.0	48.6	4.4	5	
Louisiana	920.0	255.1	115.5	199.5	136.1	3.5	5	
Maine	123.5	41.5	6.1	35.4	34.2	1.2	10	
Maryland	205.6	69.7	22.9	46.8	43.6	3.2	6	
Massachusetts	246.2	105.1	45.9	59.2	51.7	7.5	7	
Michigan	763.0	252.0	93.9	158.1	146.7	11.4	3	
Minnesota	254.5	79.8	20.3	59.5	52.0	7.5	6	
Mississippi	269.1	62.1	20.8	41.3	39.7	1.6	7	
Missouri	287.6	96.8	40.5	56.2	51.4	4.8	4	
Montana	25.5	3.4	2.1	1.3	1.2	.1	12	
Nebraska	60.0	23.5	9.7	13.8	12.0	1.8	12	
Nevada	11.0	3.0	.8	2.2	1.6	.6	20	
New Hampshire	44.1	17.7	9.6	8.1	7.4	.8	15	
New Jersey	673.8	241.5	114.0	127.5	100.9	26.6	13	
New Mexico	63.4	17.8	5.2	12.6	12.3	.3	42	
New York	650.6	299.4	96.9	202.5	183.0	19.5	5	
North Carolina	554.4	155.6	53.8	101.8	86.1	15.7	3	
North Dakota	19.3	8.1	4.5	3.6	3.3	.3	52	
Ohio	1 030.8	393.4	186.1	207.3	184.9	22.4	4	
Oklahoma	117.0	36.7	16.7	20.0	17.0	3.0	9	
Oregon	170.3	45.2	15.1	30.1	23.9	6.2	8	
Pennsylvania	890.9	338.6	125.1	213.4	191.8	21.7	5	
Rhode Island	31.0	13.0	7.0	6.0	5.0	1.1	13	
South Carolina	360.1	115.3	39.8	75.5	70.8	4.7	7	
South Dakota	16.5	7.3	3.3	4.0	3.7	.3	33	
Tennessee	441.0	162.2	36.6	115.6	105.6	10.0	6	
Texas	2 092.2	546.8	270.9	276.0	251.1	24.9	2	
Utah	123.4	39.1	24.4	14.7	13.3	1.3	22	
Vermont	17.5	8.8	5.5	3.2	2.7	.5	24	
Virginia	334.4	101.6	34.9	66.7	58.1	8.6	8	
Washington	368.2	111.9	50.6	61.3	45.6	15.8	6	
West Virginia	283.6	83.5	31.3	52.3	49.8	2.5	17	
Wisconsin	394.1	134.9	27.0	107.9	90.5	17.4	10	
Wyoming	28.7	3.3	.3	3.0	2.9	.2	17	

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 11a. Operating Costs by Industries for Kinds of Cost: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	All industries ¹	17 466.4	2 550.8	2 987.5	2 390.0	3 408.3	4 500.4	1 629.3	2
20	Food and kindred products	1 312.0	132.6	152.7	142.0	208.9	199.3	476.5	3
201	Meat products	222.2	27.2	27.5	20.1	28.7	46.1	72.6	6
2011	Meat packing plants	65.4	8.6	7.9	5.5	9.8	10.8	22.7	11
2013	Sausages and other prepared meats	31.2	1.3	1.8	2.1	8.5	2.9	14.6	23
2015	Poultry slaughtering and processing	125.5	17.2	17.8	12.4	10.4	32.5	35.2	6
202	Dairy products	146.2	8.9	11.0	10.1	26.1	20.2	69.9	11
2021	Creamery butter	4.0	.5	.2	.2	(2)	.6	2.5	57
2022	Cheese, natural and processed	49.0	3.9	4.8	3.9	12.4	9.7	14.2	18
2023	Dry, condensed, and evaporated dairy products	12.9	1.4	2.0	.7	2.8	2.0	4.1	17
2024	Ice cream and frozen desserts	14.3	.3	.6	1.1	2.1	1.7	8.5	48
2026	Fluid milk	66.0	2.8	3.5	4.3	8.7	6.2	40.6	14
203	Preserved fruits and vegetables	212.5	17.3	26.0	21.8	38.2	25.1	84.1	8
2032	Canned specialties	23.0	(D)	2.6	2.0	3.6	(D)	11.5	18
2033	Canned fruits and vegetables	77.5	3.2	7.9	8.5	14.9	8.7	34.2	15
2034	Dehydrated fruits, vegetables, and soups	8.2	(D)	.7	.4	3.4	(D)	2.3	34
2035	Pickles, sauces, and salad dressings	23.0	2.6	2.7	2.7	2.0	2.6	10.4	30
2037	Frozen fruits and vegetables	49.5	7.3	7.3	6.3	7.5	8.6	12.5	6
2038	Frozen specialties, n.e.c.	31.3	1.7	4.9	1.9	6.7	2.9	13.2	16
204	Grain mill products	164.7	23.1	15.5	37.8	22.5	24.8	41.1	6
2041	Flour and other grain mill products	13.7	2.5	1.5	5.2	1.5	2.0	1.1	30
2043	Cereal breakfast foods	27.1	3.6	4.5	2.9	4.0	4.4	7.8	4
2044	Rice milling	2.8	.7	.2	1.8	.1	.1	.8	58
2045	Prepared flour mixes and doughs	6.0	.3	1.3	.4	1.3	1.0	1.8	27
2046	Wet corn milling	75.3	11.1	5.1	18.2	5.1	13.3	22.5	5
2047	Dog and cat food	20.0	.9	1.8	2.8	7.3	2.6	4.7	21
2048	Prepared feeds, n.e.c.	19.7	4.1	1.2	6.5	3.3	1.5	3.1	27

Table 11a. Operating Costs by Industries for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
20	Food and kindred products—Con.								
205	Bakery products	53.6	7.1	6.6	1.6	14.6	10.3	13.4	15
2051	Bread, cake, and related products	32.7	6.5	3.1	.8	7.7	5.9	8.6	24
2052	Cookies and crackers	17.6	.5	3.2	.6	5.8	3.9	3.8	15
2053	Frozen bakery products, except bread	3.3	.1	.3	.2	1.1	.5	1.0	40
206	Sugar and confectionery products	80.4	8.4	12.7	7.6	18.5	15.1	18.1	13
2061	Raw cane sugar	9.6	1.0	2.7	1.1	.9	3.7	.1	40
2062	Cane sugar refining	7.7	(D)	1.0	.6	2.8	(D)	2.0	-
2063	Beet sugar	28.6	5.1	4.1	4.1	5.4	6.2	3.6	32
2064	Candy and other confectionery products	21.4	1.5	2.7	1.0	5.8	1.9	8.5	10
2066	Chocolate and cocoa products	7.8	(D)	1.3	(D)	2.1	1.0	2.3	7
2067	Chewing gum	(D)	.1	(D)	(D)	(D)	(D)	.3	(X)
2068	Salted and roasted nuts and seeds	(D)	.1	(D)	(Z)	(D)	.5	1.1	(X)
207	Fats and oils	72.3	12.5	11.3	14.3	7.1	14.1	12.9	20
2074	Cottonseed oil mills	11.4	1.4	3.4	2.5	.7	3.1	.3	82
2075	Soybean oil mills	27.0	3.3	3.8	7.2	3.2	4.6	4.9	6
2077	Animal and marine fats and oils	11.4	5.5	.5	1.6	.1	1.6	2.1	89
2079	Edible fats and oils, n.e.c.	22.1	2.3	3.6	3.0	3.1	4.8	5.4	16
208	Beverages	231.8	13.5	26.2	19.3	25.0	27.2	120.6	4
2082	Malt beverages	158.4	7.9	17.7	13.6	11.5	20.2	87.5	4
2083	Malt	4.4	.6	.2	1.0	.5	.3	1.9	25
2084	Wines, brandy, and brandy spirits	3.8	.3	.2	.4	1.8	.5	.7	32
2085	Distilled and blended liquors	6.7	.5	1.1	1.5	1.6	.5	1.5	36
2086	Bottled and canned soft drinks	52.5	3.0	5.8	2.9	9.2	4.8	26.8	11
2087	Flavoring extracts and syrups, n.e.c.	6.0	1.3	1.2	(Z)	.5	.8	2.2	32
209	Miscellaneous food and kindred products	128.3	14.6	15.8	9.3	28.1	16.4	44.1	13
2091	Canned and cured fish and seafoods	3.3	.3	.4	.2	.6	.2	1.5	53
2092	Fresh or frozen prepared fish	24.1	1.7	2.7	1.3	7.7	2.0	8.8	23
2095	Roasted coffee	17.2	3.4	1.7	3.1	4.7	1.3	3.0	28
2096	Potato chips and similar snacks	22.4	2.1	3.0	(D)	3.4	(D)	10.5	12
2098	Macaroni and spaghetti	1.1	.1	.1	(D)	.6	(D)	.2	13
2099	Food preparations, n.e.c.	60.2	7.1	7.8	3.1	11.1	11.1	20.0	24
21	Tobacco products	33.5	7.1	8.5	5.4	6.0	1.5	5.0	6
211	Cigarettes	20.1	4.3	4.5	(D)	4.5	(D)	3.8	8
2111	Cigarettes	20.1	4.3	4.5	(D)	4.5	(D)	3.8	8
213	Chewing and smoking tobacco	1.1	(D)	(D)	(D)	(D)	(D)	.4	32
2131	Chewing and smoking tobacco	1.1	(D)	(D)	(D)	(D)	(D)	.4	32
214	Tobacco stemming and redrying	11.5	(D)	(D)	3.0	(D)	.4	.4	7
2141	Tobacco stemming and redrying	11.5	(D)	(D)	3.0	(D)	.4	.4	7
22	Textile mill products	256.2	15.7	31.2	33.0	39.6	30.0	106.7	4
221	Broadwoven fabrics mills, cotton	34.6	2.2	5.3	7.0	2.0	5.1	13.0	7
2211	Broadwoven fabrics mills, cotton	34.6	2.2	5.3	7.0	2.0	5.1	13.0	7
222	Broadwoven fabrics mills, manmade fiber and silk	18.8	.6	3.4	3.4	2.8	2.4	6.1	10
2221	Broadwoven fabrics mills, manmade fiber and silk	18.8	.6	3.4	3.4	2.8	2.4	6.1	10
223	Broadwoven fabrics mills, wool	9.6	1.2	1.3	1.5	1.6	1.0	3.0	9
2231	Broadwoven fabrics mills, wool	9.6	1.2	1.3	1.5	1.6	1.0	3.0	9
224	Narrow fabrics mills	2.9	.1	.3	.3	.6	.4	1.1	22
2241	Narrow fabrics mills	2.9	.1	.3	.3	.6	.4	1.1	22
225	Knitting mills	67.6	3.0	4.7	6.6	6.3	5.6	41.3	10
2251	Women's hosiery, except socks	4.0	.2	.4	.3	.7	.2	2.2	32
2252	Hosiery, n.e.c.	6.5	(D)	.4	.4	.7	(D)	4.3	21
2253	Knit outerwear mills	11.2	.3	.4	.5	.8	.6	8.5	20
2254	Knit underwear mills	1.7	(D)	.1	.4	.1	(D)	.8	27
2257	Welt knit fabrics mills	29.0	1.1	2.4	3.6	1.7	3.2	16.9	16
2258	Lace and warp knit fabrics mills	14.4	1.1	.8	1.3	2.2	1.0	8.1	25
226	Textile finishing, except wool	45.7	2.9	4.6	5.4	7.8	5.7	19.3	12
2261	Finishing plants, cotton	19.1	1.3	2.0	1.9	3.6	2.0	8.3	18
2262	Finishing plants, manmade	17.1	1.3	2.1	3.0	3.1	3.2	4.4	14
2269	Finishing plants, n.e.c.	9.5	.3	.5	.5	1.1	.5	6.6	31
227	Carpets and rugs	16.9	.5	1.3	.9	3.4	1.1	9.8	10
2273	Carpets and rugs	16.9	.5	1.3	.9	3.4	1.1	9.8	10
228	Yarn and thread mills	21.5	2.2	2.9	3.1	3.4	2.8	7.0	10
2281	Yarn spinning mills	14.8	2.0	2.2	3.0	2.0	2.1	3.6	13
2282	Throwing and winding mills	3.7	.2	.5	.1	1.0	.3	1.6	16
2284	Thread mills	2.9	.1	.2	(Z)	.4	.4	1.8	17
229	Miscellaneous textile goods	38.7	2.9	7.2	4.8	11.7	5.9	6.1	10
2295	Coated fabrics, not rubberized	11.0	.7	1.9	1.7	4.0	1.1	1.6	21
2296	Tire cord and fabrics	1.7	(D)	.1	.2	.7	(D)	.3	5
2297	Nonwoven fabrics	18.0	1.8	3.8	1.6	5.3	3.6	2.1	7
2298	Cordage and twine	3.4	(Z)	.9	1.0	.2	(Z)	1.2	77
2299	Textile goods, n.e.c.	4.7	(D)	.6	.4	1.5	(D)	.9	25
24	Lumber and wood products	243.0	34.6	41.8	38.4	66.6	42.2	19.5	5
241	Logging	8.1	.4	1.4	1.2	2.4	2.7	.1	11
2411	Logging	8.1	.4	1.4	1.2	2.4	2.7	.1	11
242	Sawmills and planing mills	53.7	8.2	11.4	6.2	12.8	11.8	3.3	9
2421	Sawmills and planing mills, general	41.1	6.4	8.8	2.6	11.4	9.9	2.1	8
2426	Hardwood dimension and flooring mills	12.2	1.7	2.6	3.6	1.4	1.9	1.0	25
243	Millwork, plywood, and structural members	77.8	8.8	15.3	14.9	22.7	8.7	7.3	13
2431	Millwork	21.4	2.2	3.5	4.6	6.3	2.3	2.4	12
2434	Wood kitchen cabinets	14.5	1.5	3.3	2.4	4.4	1.9	1.0	27
2435	Hardwood veneer and plywood	13.9	2.9	1.8	3.5	2.3	1.5	1.8	53
2436	Softwood veneer and plywood	21.4	1.6	5.1	3.3	7.6	2.4	1.5	18
2439	Structural wood members, n.e.c.	6.5	.6	1.5	1.1	2.1	.6	.6	36

Table 11a. Operating Costs by Industries for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	
24	Lumber and wood products—Con.							
244	Wood containers	7.3	.8	.9	.8	2.0	1.0	1.9
2441	Nailed wood boxes and shooks	1.0	(D)	.2	.3	(Z)	(D)	(Z)
2446	Wood pallets and skids	4.3	.6	.6	.4	.9	.3	1.5
2449	Wood containers, n.e.c.	2.0	(D)	.1	.1	1.1	(D)	.4
245	Wood buildings and mobile homes	14.7	.3	1.3	.1	6.3	2.0	2.7
2451	Mobile homes	11.1	.2	.7	.1	6.8	1.3	2.2
2452	Prefabricated wood buildings	3.5	.2	.6	.1	1.5	.7	.5
249	Miscellaneous wood products	81.5	16.1	11.6	15.2	18.4	16.0	4.2
2491	Wood preserving	19.2	2.5	3.4	.8	8.4	3.6	.6
2493	Reconstituted wood products	49.7	11.3	6.3	12.7	6.5	9.9	3.0
2499	Wood products, n.e.c.	12.6	2.2	1.9	1.8	3.6	2.5	.6
25	Furniture and fixtures	118.5	12.3	21.1	22.7	25.1	22.8	14.4
251	Household furniture	63.8	7.0	9.6	15.4	10.9	13.9	7.1
2511	Wood household furniture	46.3	6.1	6.5	13.2	6.2	10.3	3.9
2512	Upholstered household furniture	6.9	.2	1.4	.9	2.3	.8	1.3
2514	Metal household furniture	4.8	.4	.8	.4	1.4	1.2	.9
2515	Mattresses and bedsprings	2.7	(D)	.3	.4	.1	(D)	.5
2517	Wood television and radio cabinets	1.3	(Z)	.2	.4	.7	.4	.2
2519	Household furniture, n.e.c.	1.8	(D)	.4	.2	.1	(D)	.2
252	Office furniture	27.9	4.0	6.0	5.5	5.4	3.4	3.6
2521	Wood office furniture	10.6	2.0	1.5	3.6	1.8	1.0	.7
2522	Office furniture, except wood	17.3	2.0	4.5	2.0	3.6	2.4	2.8
253	Public building and related furniture	5.0	.2	1.2	.4	1.6	.6	1.0
2531	Public building and related furniture	5.0	.2	1.2	.4	1.6	.6	1.0
254	Partitions and fixtures	16.5	.7	3.4	.8	5.4	4.2	2.1
2541	Wood partitions and fixtures	5.7	.2	1.2	.2	2.5	1.0	.4
2542	Partitions and fixtures, except wood	10.8	.5	2.2	.5	2.8	3.1	1.7
259	Miscellaneous furniture and fixtures	5.2	.5	.9	.6	1.8	.8	.6
2591	Drapery hardware and blinds and shades	2.2	.3	.4	.3	.8	.3	.2
2599	Furniture and fixtures, n.e.c.	3.0	.2	.6	.4	1.0	.5	.4
26	Paper and allied products	1 860.7	365.7	243.4	242.5	306.3	502.4	200.3
261	Pulp mills	291.2	54.8	34.5	41.0	68.1	68.1	24.7
2611	Pulp mills	291.2	54.8	34.5	41.0	68.1	68.1	24.7
262	Paper mills	924.3	190.4	115.8	101.3	117.4	286.9	112.5
2621	Paper mills	924.3	190.4	115.8	101.3	117.4	286.9	112.5
263	Paperboard mills	377.7	88.9	47.2	65.1	40.2	101.9	34.4
2631	Paperboard mills	377.7	88.9	47.2	65.1	40.2	101.9	34.4
265	Paperboard containers and boxes	93.0	6.3	20.6	9.4	33.1	12.9	10.7
2652	Setup paperboard boxes	1.7	(Z)	.5	.1	.3	.3	.4
2653	Corrugated and solid fiber boxes	41.2	2.4	11.5	1.2	12.3	8.0	5.9
2655	Fiber cans, drums, and similar products	5.0	.2	.3	.2	3.8	.5	.1
2656	Sanitary food containers	4.1	.1	.9	.2	1.7	.4	.7
2657	Folding paperboard boxes	41.0	3.6	7.4	7.8	15.0	3.6	3.5
267	Miscellaneous converted paper products	174.5	25.4	25.2	25.7	47.5	32.7	18.0
2671	Paper coated and laminated, packaging	28.3	6.2	3.0	7.9	4.5	4.9	1.8
2672	Paper coated and laminated, n.e.c.	45.0	7.7	4.3	6.6	11.9	10.8	3.7
2673	Bags: plastics, laminated, and coated	19.0	1.2	2.8	3.1	5.6	4.4	1.9
2674	Bags: uncoated paper and multiwall	4.9	.2	1.1	.3	1.4	.6	1.3
2675	Die-cut paper and board	7.4	.8	1.0	.8	2.6	1.5	.7
2676	Sanitary paper products	43.8	6.1	8.7	5.2	13.0	6.9	3.9
2677	Envelopes	7.6	1.1	1.6	.5	1.8	1.5	1.0
2678	Stationery products	4.1	.3	1.2	.3	1.1	.6	.6
2679	Converted paper products, n.e.c.	14.4	2.0	1.3	.9	5.6	1.6	3.0
27	Printing and publishing	239.0	31.2	38.6	45.6	59.6	35.2	28.8
271	Newspapers	31.9	.5	4.2	1.5	15.0	3.0	7.6
2711	Newspapers	31.9	.5	4.2	1.5	15.0	3.0	7.6
272	Periodicals	3.3	1.6	.3	.4	.9	.1	.1
2721	Periodicals	3.3	1.6	.3	.4	.9	.1	.1
273	Books	17.2	2.2	3.4	2.3	4.2	1.7	3.4
2731	Book publishing	2.7	.1	.2	.2	.8	.1	1.3
2732	Book printing	14.5	2.0	3.2	2.1	3.5	1.6	2.1
274	Miscellaneous publishing	1.5	.1	.3	.1	.6	.3	.2
2741	Miscellaneous publishing	1.5	.1	.3	.1	.6	.3	.2
275	Commercial printing	148.7	24.7	19.9	39.0	28.3	24.9	12.0
2752	Commercial printing, lithographic	92.3	14.2	11.7	23.2	21.6	13.3	8.4
2754	Commercial printing, gravure	35.8	7.5	5.6	12.6	1.3	7.5	1.3
2759	Commercial printing, n.e.c.	20.6	2.9	2.6	3.2	5.4	4.1	2.3
276	Manifold business forms	16.2	1.0	5.8	1.1	4.4	1.7	2.1
2761	Manifold business forms	16.2	1.0	5.8	1.1	4.4	1.7	2.1
277	Greeting cards	4.6	.1	2.0	.1	1.2	.4	.6
2771	Greeting cards	4.6	.1	2.0	.1	1.2	.4	.6
278	Blankbooks and bookbinding	4.9	.2	.8	.3	1.7	1.4	.6
2782	Blankbooks and looseleaf binders	3.1	(Z)	.6	(Z)	1.0	1.0	.4
2789	Bookbinding and related work	1.9	.2	.2	.3	.6	.4	.2
279	Printing trade services	10.8	.8	1.9	.8	3.4	1.7	2.1
2796	Platemaking services	10.0	.8	1.9	.8	3.3	1.4	1.8

Table 11a. Operating Costs by Industries for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code	Industry	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
32	Stone, clay, and glass products	491.2	76.9	83.9	87.4	80.2	128.0	34.9	4
321	Flat glass	13.6	2.8	2.9	1.7	3.3	1.9	.9	11
3211	Flat glass	13.6	2.8	2.9	1.7	3.3	1.9	.9	11
322	Glass and glassware, pressed or blown	68.0	10.0	10.2	9.2	11.8	19.1	7.7	3
3221	Glass containers	21.1	1.6	2.5	2.7	3.8	6.5	4.0	7
3229	Pressed and blown glass, n.e.c.	46.8	8.4	7.7	6.4	8.0	12.6	3.7	3
323	Products of purchased glass	35.7	2.6	8.6	3.4	8.1	7.9	5.1	14
3231	Products of purchased glass	35.7	2.6	8.6	3.4	8.1	7.9	5.1	14
324	Cement, hydraulic	123.2	27.8	21.4	31.3	12.5	29.3	.8	6
3241	Cement, hydraulic	123.2	27.8	21.4	31.3	12.5	29.3	.8	6
325	Structural clay products	20.7	2.3	4.0	3.6	4.8	4.1	2.0	8
3251	Brick and structural clay tile	5.4	.7	1.0	.4	.9	2.2	.2	9
3253	Ceramic wall and floor tile	7.9	.9	1.5	.6	2.7	1.0	1.2	5
3255	Clay refractories	5.7	.6	1.2	1.3	1.1	.8	.6	16
3259	Structural clay products, n.e.c.	1.8	.1	.3	1.3	.1	(Z)	(Z)	69
326	Pottery and related products	18.2	2.0	3.9	1.9	4.5	3.4	2.5	9
3261	Vitreous plumbing fixtures	5.4	.6	1.2	.4	1.3	1.1	.7	19
3262	Vitreous china table and kitchenware	3.8	.3	1.2	.1	1.0	.4	.7	14
3264	Porcelain electrical supplies	6.0	.7	1.0	1.0	1.2	1.5	.6	16
3269	Pottery products, n.e.c.	3.1	.3	.5	.4	1.0	.4	.5	17
327	Concrete, gypsum, and plaster products	75.4	7.2	16.7	12.1	16.5	17.6	5.4	9
3271	Concrete block and brick	2.7	.3	.5	.4	.5	.5	.4	34
3272	Concrete products, n.e.c.	12.4	.2	1.4	.4	5.9	3.3	1.1	17
3273	Ready-mixed concrete	25.0	2.3	7.6	3.9	3.1	5.9	2.2	14
3274	Lime	18.5	2.2	4.8	4.4	2.8	4.2	(Z)	23
3275	Gypsum products	16.9	2.1	2.4	3.0	4.2	3.7	1.6	12
328	Cut stone and stone products	3.3	.4	.6	.1	.9	.9	.3	42
3281	Cut stone and stone products	3.3	.4	.6	.1	.9	.9	.3	42
329	Miscellaneous nonmetallic mineral products	133.2	21.9	15.6	24.1	17.7	43.7	10.2	8
3291	Abrasive products	19.1	2.9	1.3	1.1	3.4	6.8	3.6	9
3292	Asbestos products	1.5	.1	.3	.2	1.4	.4	(Z)	31
3295	Minerals, ground or treated	19.7	4.9	2.6	3.9	1.4	5.3	1.6	29
3296	Mineral wool	74.9	10.5	9.3	15.8	6.2	28.4	2.9	10
3297	Nonclay refractories	13.7	1.8	1.5	2.5	3.9	2.3	1.7	24
3299	Nonmetallic mineral products, n.e.c.	4.2	1.6	.5	.6	.4	.6	.5	48
33	Primary metal industries	1 993.4	325.9	303.7	359.3	360.8	565.1	58.5	3
331	Blast furnace and basic steel products	1 047.3	182.1	152.7	198.9	204.8	289.4	19.4	5
3312	Blast furnaces and steel mills	910.4	165.1	130.1	174.9	162.4	263.8	14.1	5
3313	Electrometallurgical products	47.2	7.2	7.2	19.3	8.1	5.0	.3	28
3315	Steel wire and related products	23.8	3.3	4.9	1.6	5.0	6.5	2.4	20
3316	Cold finishing of steel shapes	38.1	3.9	6.6	1.6	16.3	8.3	1.2	7
3317	Steel pipe and tubes	27.9	2.5	3.8	1.4	13.0	5.7	1.5	17
332	Iron and steel foundries	245.3	33.3	34.9	55.8	48.3	55.2	17.7	4
3321	Gray and ductile iron foundries	197.4	29.2	28.9	44.3	34.8	48.4	11.7	5
3322	Malleable iron foundries	8.3	.2	.9	(D)	1.3	(D)	1.7	12
3324	Steel investment foundries	11.8	.9	2.0	(D)	3.6	(D)	1.6	5
3325	Steel foundries, n.e.c.	27.8	3.0	3.0	6.9	8.6	3.6	2.7	12
333	Primary nonferrous metals	374.3	68.8	59.3	67.1	45.2	131.0	3.0	5
3331	Primary copper	119.8	30.1	14.4	24.8	(D)	39.6	(D)	9
3334	Primary aluminum	174.7	26.6	31.7	30.9	25.4	58.0	2.2	5
3339	Primary nonferrous metals, n.e.c.	79.7	12.1	13.2	11.4	(D)	33.5	(D)	16
334	Secondary nonferrous metals	79.3	14.7	10.9	16.1	7.7	28.7	1.1	8
3341	Secondary nonferrous metals	79.3	14.7	10.9	16.1	7.7	28.7	1.1	8
335	Nonferrous rolling and drawing	182.1	18.5	32.9	14.7	58.8	46.7	10.5	7
3351	Copper rolling and drawing	41.4	3.7	5.7	4.0	14.6	10.1	3.2	12
3353	Aluminum sheet, plate, and foil	56.4	7.9	7.3	5.5	18.4	15.7	1.6	8
3354	Aluminum extruded products	19.3	1.4	4.2	.7	5.7	6.1	1.2	25
3356	Nonferrous rolling and drawing, n.e.c.	38.0	4.7	10.5	2.4	9.0	10.1	1.4	22
3357	Nonferrous wire drawing and insulating	26.2	.9	5.0	2.2	10.7	4.5	3.0	14
336	Nonferrous foundries (castings)	45.2	5.7	9.2	4.9	9.9	11.3	4.2	11
3363	Aluminum die-castings	16.8	2.3	3.2	1.5	3.1	5.5	1.2	4
3364	Nonferrous die-castings, except aluminum	(D)	(D)	(D)	(D)	1.3	(D)	(D)	(X)
3365	Aluminum foundries	13.2	1.7	1.7	2.0	3.8	2.2	1.9	13
3366	Copper foundries	7.2	1.1	2.8	.8	1.6	.6	.2	61
3369	Nonferrous foundries, n.e.c.	(D)	(D)	(D)	(D)	.2	(D)	(D)	(X)
339	Miscellaneous primary metal products	19.9	2.8	3.8	1.8	6.1	2.8	2.6	14
3398	Metal heat treating	7.4	.5	1.3	.4	2.3	1.3	1.7	11
3399	Primary metal products, n.e.c.	12.4	2.3	2.5	1.5	3.8	1.6	.9	21
34	Fabricated metal products	761.2	67.2	161.7	76.4	197.2	173.9	84.9	4
341	Metal cans and shipping containers	71.3	10.1	10.8	12.8	12.4	18.1	7.2	6
3411	Metal cans	59.2	8.8	8.4	10.5	8.7	16.5	6.2	5
3412	Metal barrels, drums, and pails	12.2	1.3	2.3	2.3	3.8	1.5	1.0	21
342	Cutlery, handtools, and hardware	67.6	6.4	13.0	6.8	13.9	20.3	7.2	8
3421	Cutlery	4.0	(D)	.7	.3	.8	(D)	.4	27
3423	Hand and edge tools, n.e.c.	14.0	1.6	3.5	1.8	3.8	1.8	1.5	23
3425	Saw blades and handsaws	2.0	(D)	.5	.2	.5	(D)	.3	38
3429	Hardware, n.e.c.	47.6	4.5	8.3	4.5	8.8	16.5	5.1	9
343	Plumbing and heating, except electric	27.0	4.2	5.0	4.7	5.5	5.0	2.6	7
3431	Metal sanitary ware	8.2	2.0	.9	(D)	1.2	(D)	.6	12
3432	Plumbing fixture fittings and trim	14.0	1.5	3.1	1.8	3.0	3.3	1.3	9
3433	Heating equipment, except electric	4.8	.7	1.1	(D)	1.2	(D)	.6	11
344	Fabricated structural metal products	100.0	7.7	16.8	8.5	24.5	26.4	16.0	14
3441	Fabricated structural metal	12.0	.5	2.4	.9	3.5	3.2	1.5	24
3442	Metal doors, sash, and trim	13.1	.4	1.8	.7	5.9	2.6	1.7	33
3443	Fabricated plate work (boiler shops)	18.5	3.1	2.3	.7	5.0	5.1	2.4	20
3444	Sheet metal work	36.8	2.3	5.2	5.1	6.0	9.5	8.8	30
3446	Architectural metal work	5.1	.4	2.1	.2	1.3	.9	.3	56
3448	Prefabricated metal buildings	4.5	.4	1.1	.4	.7	1.5	.4	36
3449	Miscellaneous metal work	10.0	.6	1.9	.5	2.3	3.8	1.0	30

Table 11a. Operating Costs by Industries for Kinds of Cost: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	Industry	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
34	Fabricated metal products—Con.								
345	Screw machine products, bolts, etc.	27.2	3.2	7.5	1.5	7.7	5.3	2.1	8
3451	Screw machine products	7.3	1.6	2.3	.3	1.7	1.0	.4	21
3452	Bolts, nuts, rivets, and washers	19.9	1.7	5.1	1.1	6.0	4.3	1.7	8
346	Metal forgings and stampings	83.8	5.4	20.4	6.6	20.2	16.4	14.8	9
3462	Iron and steel forgings	11.7	1.3	2.1	1.5	3.3	1.8	1.7	21
3463	Nonferrous forgings	5.9	.6	1.2	.1	1.5	1.5	1.0	24
3465	Automotive stampings	42.6	1.7	13.8	1.6	9.1	9.0	7.3	9
3466	Crowns and closures	2.1	.1	—	1.5	.3	.1	.2	83
3469	Metal stampings, n.e.c.	21.5	1.8	3.3	1.9	5.9	4.0	4.6	24
347	Metal services, n.e.c.	168.3	16.8	39.2	21.0	26.1	45.6	19.7	7
3471	Plating and polishing	122.6	11.5	29.7	10.8	17.0	36.1	17.3	8
3479	Metal coating and allied services	45.7	5.2	9.5	10.1	9.1	9.4	2.4	13
348	Ordnance and accessories, n.e.c.	113.3	4.4	39.4	3.2	47.6	20.2	4.5	14
3482	Small arms ammunition	26.0	1.0	4.8	.8	14.9	3.7	.8	22
3483	Ammunition, except for small arms, n.e.c.	39.9	1.2	14.7	1.2	11.8	9.7	1.3	27
3484	Small arms	8.0	.7	2.0	.7	1.9	1.8	.8	18
3489	Ordnance and accessories, n.e.c.	39.5	1.6	11.9	.4	19.0	5.1	1.6	23
349	Miscellaneous fabricated metal products	102.7	9.0	15.7	11.4	39.3	16.5	10.9	12
3491	Industrial valves	24.1	1.7	4.9	2.4	8.5	2.2	4.5	19
3492	Fluid power valves and hose fittings	7.0	.8	1.3	.6	1.8	1.5	1.0	29
3494	Valves and pipe fittings, n.e.c.	14.3	1.8	2.0	2.9	3.6	2.8	1.0	26
3495	Wire springs	4.9	.2	.8	.1	2.5	1.2	.2	45
3496	Miscellaneous fabricated wire products	4.6	.3	.5	.2	1.5	1.3	.7	39
3497	Metal foil and leaf	10.3	.9	1.0	.2	3.1	2.1	.9	25
3498	Fabricated pipe and fittings	14.4	.4	2.0	.7	9.9	.9	.6	56
3499	Fabricated metal products, n.e.c.	22.3	2.8	3.1	2.1	8.2	4.2	1.9	25
35	Industrial machinery and equipment	463.7	38.0	98.9	32.2	156.9	83.5	54.3	4
351	Engines and turbines	53.8	4.4	14.0	6.5	14.3	10.5	4.2	6
3511	Turbines and turbine generator sets	15.6	.7	3.3	1.3	6.7	2.9	.8	9
3519	Internal combustion engines, n.e.c.	38.2	3.7	10.7	5.2	7.6	7.6	3.4	8
352	Farm and garden machinery	32.8	2.7	6.8	2.1	9.2	8.3	3.7	10
3523	Farm machinery and equipment	21.7	1.8	4.9	.9	5.3	6.7	2.1	12
3524	Lawn and garden equipment	11.1	.9	1.9	1.2	3.9	1.6	1.6	16
353	Construction and related machinery	52.4	6.5	10.5	3.1	18.1	9.0	5.1	10
3531	Construction machinery	33.0	5.2	7.1	2.1	10.3	6.2	1.9	10
3532	Mining machinery	3.7	(D)	1.0	(Z)	1.6	(D)	.9	27
3533	Oil and gas field machinery	2.6	(D)	.5	.3	.9	(D)	.4	21
3534	Elevators and moving stairways	1.2	(Z)	.4	.1	.5	.1	.1	29
3535	Conveyors and conveying equipment	3.1	(Z)	.7	.1	.5	.9	.5	32
3536	Hoists, cranes, and monorails	2.3	(Z)	.7	(Z)	.5	.4	1.2	32
3537	Industrial trucks and tractors	6.5	.5	.7	.2	3.8	1.0	.2	54
354	Metalworking machinery	48.8	2.6	9.8	1.5	20.3	8.0	6.6	20
3541	Machine tools, metal cutting types	3.8	.1	.5	(Z)	2.5	.4	.3	28
3542	Machine tools, metal forming types	1.9	(Z)	1.1	(Z)	1.3	.4	.1	39
3543	Industrial patterns	8.6	.2	.9	(Z)	3.7	.5	3.2	95
3544	Special dies, tools, jigs, and fixtures	14.9	1.3	3.0	.5	7.3	1.7	1.1	26
3545	Machine tool accessories	7.6	.3	1.9	.2	2.5	2.1	.6	23
3546	Power-driven handtools	2.8	.1	.8	.1	.8	.6	.4	26
3548	Welding apparatus	8.3	.6	2.6	.5	1.7	2.1	.8	25
355	Special industry machinery	32.3	1.4	3.9	1.4	17.5	3.4	4.6	10
3552	Textile machinery	2.7	.2	.4	.1	.8	.8	.5	33
3553	Woodworking machinery	1.9	.1	.1	.2	.4	.3	.8	28
3554	Paper industries machinery	4.5	.2	.8	.2	1.8	.4	1.1	22
3555	Printing trades machinery	3.9	.2	.5	.3	2.3	.1	.4	22
3556	Food products machinery	2.1	.1	.4	.1	1.1	(Z)	.4	26
3559	Special industry machinery, n.e.c.	17.3	.7	1.7	.6	11.2	1.7	1.4	16
356	General industrial machinery	80.9	4.3	19.6	4.8	32.7	9.9	9.5	10
3561	Pumps and pumping equipment	12.6	.4	3.4	1.0	3.4	1.5	2.9	18
3562	Ball and roller bearings	11.4	.6	2.6	1.0	4.1	2.5	.6	17
3563	Air and gas compressors	7.2	.5	1.5	.3	3.2	.7	1.1	18
3564	Blowers and fans	4.8	.2	.8	.1	2.6	.5	.6	36
3565	Packaging machinery	8.1	(D)	(D)	.1	3.9	(D)	.2	15
3566	Speed changers, drives, and gears	10.1	1.6	2.8	.9	2.4	1.8	.7	50
3567	Industrial furnaces and ovens	4.4	.2	1.1	.2	.8	.8	1.3	29
3568	Power transmission equipment, n.e.c.	8.4	.3	1.0	.2	5.9	.6	.4	42
3569	General industrial machinery, n.e.c.	13.9	.6	(D)	1.0	6.5	(D)	1.7	27
357	Computer and office equipment	51.5	6.3	12.6	4.2	11.5	8.7	8.2	15
3571	Electronic computers	25.9	2.9	6.4	3.2	4.9	5.3	3.3	27
3572	Computer storage devices	8.8	2.3	2.6	.1	1.7	.8	1.4	11
3575	Computer terminals	2.4	(Z)	.6	(Z)	1.4	.2	.2	56
3577	Computer peripheral equipment, n.e.c.	8.5	.8	1.7	.6	2.5	1.0	2.0	24
3578	Calculating and accounting equipment	1.3	(Z)	.2	(Z)	.2	.1	.7	79
3579	Office machines, n.e.c.	4.5	.3	1.0	.3	.8	1.4	.7	40
358	Refrigeration and service machinery	72.3	6.6	14.2	6.4	21.7	14.8	8.6	5
3581	Automatic vending machines	1.2	.1	.5	.1	.2	.3	.1	14
3582	Commercial laundry equipment	2.7	.1	.5	.1	.7	.2	1.2	35
3585	Refrigeration and heating equipment	62.6	6.1	12.5	5.8	18.4	13.4	6.5	5
3589	Service industry machinery, n.e.c.	4.9	.3	.6	.5	1.9	.9	.7	12
359	Industrial machinery, n.e.c.	39.0	3.3	7.5	2.0	11.7	10.7	3.7	12
3592	Carburetors, pistons, rings, and valves	10.5	1.5	2.3	.4	1.0	4.6	.8	23
3593	Fluid power cylinders and actuators	4.2	.2	1.6	.2	.8	1.0	.4	31
3594	Fluid power pumps and motors	3.8	.2	.6	.1	1.5	.8	.7	13
3599	Industrial machinery, n.e.c.	19.5	1.5	2.8	1.2	6.0	4.3	1.7	19
36	Electronic and other electric equipment	657.1	79.8	160.3	58.0	135.7	147.7	75.5	5
361	Electric distribution equipment	23.3	1.7	5.6	1.1	7.5	4.8	2.6	7
3612	Transformers, except electronic	10.4	.8	2.1	.4	3.3	2.3	1.4	9
3613	Switchgear and switchboard apparatus	13.0	.9	3.5	.6	4.2	2.6	1.2	11

Table 11a. Operating Costs by Industries for Kinds of Cost: 1992—Con.

Allion dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
6	Electronic and other electric equipment—								
	Con.								
62	Electrical industrial apparatus	47.1	4.9	7.1	4.0	11.6	14.1	5.4	17
321	Motors and generators	15.2	1.2	2.5	.5	6.3	2.0	2.7	12
324	Carbon and graphite products	20.7	2.9	2.3	2.7	3.8	8.5	.7	36
325	Relays and industrial controls	10.6	.8	2.2	.7	1.5	3.4	1.9	22
33	Household appliances	43.0	5.0	9.5	2.5	10.4	8.2	7.4	8
331	Household cooking equipment	7.4	1.1	1.4	.5	1.5	1.3	1.6	19
332	Household refrigerators and freezers	11.2	1.4	2.9	.5	2.3	2.2	1.9	8
333	Household laundry equipment	12.4	1.5	2.9	.7	2.2	3.0	2.1	12
334	Electric housewares and fans	2.8	.1	.5	.1	1.0	.5	.5	30
335	Household vacuum cleaners	3.4	.2	.7	.2	1.5	.3	.5	31
339	Household appliances, n.e.c.	5.9	.8	1.1	.5	1.8	.9	.9	33
34	Electric lighting and wiring equipment	52.1	3.9	12.9	4.1	14.1	9.7	7.3	13
341	Electric lamp bulbs and tubes	7.8	.7	1.6	.6	2.2	1.4	1.3	25
343	Current-carrying wiring devices	10.8	1.0	1.9	.6	2.6	2.5	2.1	19
344	Noncurrent-carrying wiring devices	8.7	.7	1.5	.6	3.1	1.6	1.2	26
345	Residential lighting fixtures	1.6	.2	(D)	.1	.4	(D)	.2	62
346	Commercial lighting fixtures	5.5	.2	1.3	.2	2.2	.9	.6	37
347	Vehicular lighting equipment	10.2	.7	(D)	.2	2.3	(D)	1.0	6
348	Lighting equipment, n.e.c.	7.6	.5	1.3	1.8	1.3	1.7	1.0	63
35	Household audio and video equipment	19.6	1.7	4.6	.5	8.1	3.7	1.1	20
351	Household audio and video equipment	12.7	1.4	2.6	.2	4.8	2.9	.8	25
352	Prerecorded records and tapes	6.9	.2	2.0	.3	3.3	.8	.3	35
36	Communications equipment	66.7	5.0	20.7	3.6	17.4	13.3	6.7	33
361	Telephone and telegraph apparatus	48.0	3.7	15.6	2.7	10.2	11.8	4.0	45
363	Radio and television communications								
	equipment	14.9	1.2	3.9	.7	5.4	1.4	2.3	13
369	Communications equipment, n.e.c.	3.8	.1	1.1	.3	1.8	.2	.4	56
37	Electronic components and accessories	312.1	45.5	80.4	33.6	45.1	69.6	37.9	5
371	Electron tubes	14.0	1.1	3.3	1.3	3.3	3.5	1.4	9
372	Printed circuit boards	93.3	6.3	31.1	8.6	11.6	28.2	7.6	8
374	Semiconductors and related devices	132.7	28.6	23.9	17.3	18.4	24.3	20.2	9
375	Electronic capacitors	8.4	2.8	1.4	.4	2.4	.7	.6	42
376	Electronic resistors	2.8	.2	.9	.4	.5	.4	.5	46
377	Electronic coils and transformers	2.3	.1	.4	.1	.6	.2	.9	51
378	Electronic connectors	7.6	1.1	2.7	.4	1.4	1.1	.8	34
379	Electronic components, n.e.c.	51.0	5.3	16.6	5.1	7.0	11.1	5.9	16
38	Miscellaneous electrical equipment and								
	supplies	93.2	12.1	19.6	8.5	21.4	24.3	7.2	12
391	Storage batteries	18.6	2.4	3.0	2.8	4.3	5.8	.3	21
392	Primary batteries, dry and wet	14.8	2.7	3.6	1.1	1.4	5.2	.8	46
394	Engine electrical equipment	15.0	1.0	3.3	1.1	4.3	3.7	1.6	15
395	Magnetic and optical recording media	32.2	5.1	7.1	2.7	6.8	7.5	3.0	19
399	Electrical equipment and supplies, n.e.c.	12.5	.9	2.6	.8	4.5	2.2	1.5	21
37	Transportation equipment	1 171.7	204.2	279.1	109.8	281.0	210.0	87.6	4
371	Motor vehicles and equipment	660.6	169.5	137.1	77.8	120.6	105.8	49.9	5
3711	Motor vehicles and car bodies	401.0	129.8	76.5	53.9	68.6	48.5	23.7	7
3713	Truck and bus bodies	7.7	.3	1.9	.3	2.4	1.3	1.5	15
3714	Motor vehicle parts and accessories	243.8	38.8	57.0	23.1	46.0	54.9	24.0	6
3715	Truck trailers	4.1	.3	1.0	.3	1.5	.6	.5	11
3716	Motor homes	4.0	.3	.8	.1	2.1	.5	.2	11
372	Aircraft and parts	303.9	15.8	73.8	21.4	104.6	63.4	24.8	6
3721	Aircraft	138.0	6.3	36.9	9.1	37.0	35.8	13.0	9
3724	Aircraft engines and engine parts	63.8	4.7	19.8	3.5	24.4	13.1	4.3	11
3728	Aircraft parts and equipment, n.e.c.	102.0	4.8	23.1	8.8	43.3	14.5	7.5	8
373	Ship and boat building and repairing	58.2	9.0	16.1	1.7	18.1	7.2	6.2	7
3731	Ship building and repairing	47.1	8.6	13.6	1.4	13.2	5.6	4.7	7
3732	Boat building and repairing	11.1	.4	2.5	.3	4.9	1.6	1.5	19
374	Railroad equipment	11.3	.9	2.7	.6	2.7	3.4	1.0	7
3743	Railroad equipment	11.3	.9	2.7	.6	2.7	3.4	1.0	7
375	Motorcycles, bicycles, and parts	4.8	(D)	.9	.3	1.4	(D)	.3	14
3751	Motorcycles, bicycles, and parts	4.8	(D)	.9	.3	1.4	(D)	.3	14
376	Guided missiles, space vehicles, parts	109.8	6.9	41.3	5.8	28.0	24.2	3.7	15
3761	Guided missiles and space vehicles	59.5	4.1	19.3	2.7	15.2	15.6	2.7	10
3764	Space propulsion units and parts	34.5	2.6	11.8	1.5	10.4	7.6	.6	33
3769	Space vehicle equipment, n.e.c.	15.7	.1	10.2	1.6	2.4	1.0	.4	59
379	Miscellaneous transportation equipment	23.2	(D)	7.3	2.2	5.7	(D)	1.6	10
3792	Travel trailers and campers	6.1	.1	1.3	.9	2.5	.9	.5	34
3795	Tanks and tank components	10.5	(D)	4.9	.9	(D)	(D)	(D)	2
3799	Transportation equipment, n.e.c.	6.5	.6	1.1	.4	(D)	1.2	(D)	14
38	Instruments and related products	331.9	37.1	76.0	27.2	78.1	83.0	30.5	4
381	Search and navigation equipment	70.7	5.8	22.0	2.7	17.6	13.6	9.1	7
3812	Search and navigation equipment	70.7	5.8	22.0	2.7	17.6	13.6	9.1	7
382	Measuring and controlling devices	56.4	3.3	12.5	2.4	20.4	10.1	7.7	9
3821	Laboratory apparatus and furniture	5.1	.3	.9	.2	2.6	.4	.8	36
3822	Environmental controls	4.5	.2	1.0	.1	1.8	.6	.8	27
3823	Process control instruments	10.1	.4	2.4	.3	3.6	1.8	1.6	21
3824	Fluid meters and counting devices	9.3	.9	1.7	.7	2.2	3.0	.8	23
3825	Instruments to measure electricity	13.3	1.1	3.9	.5	4.0	2.6	1.1	13
3826	Analytical instruments	6.9	.1	1.1	.4	2.6	1.4	1.3	29
3827	Optical instruments and lenses	3.5	.1	.7	.2	1.4	.2	.8	31
3829	Measuring and controlling devices, n.e.c.	3.8	(Z)	.8	(Z)	2.4	.1	.4	24
384	Medical instruments and supplies	41.5	2.8	7.7	2.3	12.9	7.5	8.6	11
3841	Surgical and medical instruments	9.7	.7	1.3	.5	4.5	.8	1.9	19
3842	Surgical appliances and supplies	20.0	1.5	4.3	1.4	4.6	4.3	3.9	16
3843	Dental equipment and supplies	1.1	(Z)	(Z)	-	.1	.7	.2	43
3844	X-ray apparatus and tubes	5.9	.2	1.0	.1	2.4	1.0	1.2	39
3845	Electromedical equipment	4.9	.3	1.0	.2	1.2	.7	1.4	22

Table 11a. Operating Costs by Industries for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No industries are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Industry	Total PAOC	Kind of cost for all media					Standard error of estimate (PAOC) (percent)	
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous		Payments to government
38	Instruments and related products—Con.								
385	Ophthalmic goods	7.1	.5	1.5	.3	1.7	2.1	1.0	10
3851	Ophthalmic goods	7.1	.5	1.5	.3	1.7	2.1	1.0	10
386	Photographic equipment and supplies	154.2	24.7	32.1	19.5	25.3	49.0	3.8	5
3861	Photographic equipment and supplies	154.2	24.7	32.1	19.5	25.3	49.0	3.8	5
387	Watches, clocks, watchcases, and parts	1.9	.1	.3	.1	.4	.7	.3	28
3873	Watches, clocks, watchcases, and parts	1.9	.1	.3	.1	.4	.7	.3	28
39	Miscellaneous manufacturing industries	89.7	8.5	13.6	12.7	26.4	16.5	12.0	5
391	Jewelry, silverware, and plated ware	8.8	.6	1.3	1.6	1.9	2.0	1.6	9
3911	Jewelry, precious metal	3.3	.4	.4	.4	.6	.6	.5	12
3914	Silverware and plated ware	3.9	(D)	.6	1.1	.6	(D)	.1	11
3915	Jewelers' materials and lapidary work	1.7	(D)	.2	.1	.3	(D)	.9	34
393	Musical instruments	5.6	.2	.4	.7	3.9	.2	.3	20
3931	Musical instruments	5.6	.2	.4	.7	3.9	.2	.3	20
394	Toys and sporting goods	17.8	1.7	3.2	1.8	4.8	3.8	2.5	14
3944	Games, toys, and children's vehicles	2.9	.2	.5	.3	1.2	3.5	1.8	14
3949	Sporting and athletic goods, n.e.c.	14.5	1.5	2.7	1.5	3.5	3.5	1.8	17
395	Pens, pencils, office, and art supplies	7.1	.6	1.2	.2	3.2	1.2	.7	10
3951	Pens and mechanical pencils	3.6	.4	.7	.2	1.0	.8	.4	13
3952	Lead pencils and art goods	1.8	(D)	.3	(Z)	1.1	(D)	.1	10
3955	Carbon paper and inked ribbons	1.6	(D)	.1	(Z)	1.0	(D)	.2	30
396	Costume jewelry and notions	13.4	2.4	2.4	2.5	2.3	2.0	1.9	14
3961	Costume jewelry	3.8	.4	.7	.3	.9	.7	.6	24
3965	Fasteners, buttons, needles, and pins	9.6	1.9	1.6	2.1	1.4	1.3	1.2	17
399	Miscellaneous manufactures	36.9	3.1	5.2	6.0	10.4	7.3	5.0	5
3991	Brooms and brushes	1.2	(Z)	(D)	(Z)	.9	(Z)	(D)	26
3993	Signs and advertising specialties	6.5	.4	.7	.3	3.1	1.1	.9	15
3995	Burial caskets	2.6	.3	.3	.5	.4	.5	.6	30
3996	Hard surface floor coverings, n.e.c.	19.9	1.7	(D)	4.7	4.2	4.1	(D)	3
3999	Manufacturing industries, n.e.c.	6.8	.6	1.6	.5	1.7	1.6	.8	16

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media					Standard error of estimate (PAOC) (percent)	
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous		Payments to government
	United States¹	17 466.4	2 550.8	2 987.5	2 390.0	3 408.3	4 500.4	1 629.3	2
20	Food and kindred products	1 312.0	132.6	152.7	142.0	208.9	199.3	476.5	3
21	Tobacco products	33.5	7.1	8.5	5.4	6.0	1.5	5.0	6
22	Textile mill products	256.2	15.7	31.2	33.0	39.6	30.0	106.7	4
24	Lumber and wood products	243.0	34.6	41.8	38.4	66.6	42.2	19.5	5
25	Furniture and fixtures	118.5	12.3	21.1	22.7	25.1	22.8	14.4	6
26	Paper and allied products	1 860.7	365.7	243.4	242.5	306.3	502.4	200.3	4
27	Printing and publishing	239.0	31.2	38.6	45.6	59.6	35.2	28.8	4
28	Chemicals and allied products	4 425.1	703.1	831.1	483.1	825.3	1 363.2	219.3	3
29	Petroleum and coal products	2 585.4	374.5	383.2	567.8	416.5	806.1	37.2	4
30	Rubber and miscellaneous plastics products	379.6	31.6	51.2	41.4	109.6	74.4	71.4	5
31	Leather and leather products	53.5	4.7	7.6	5.2	8.3	15.6	12.2	13
32	Stone, clay, and glass products	491.2	76.9	83.9	87.4	80.2	128.0	34.9	4
33	Primary metal industries	1 993.4	325.9	303.7	359.3	380.8	565.1	58.5	3
34	Fabricated metal products	761.2	67.2	161.7	76.4	197.2	173.9	64.9	4
35	Industrial machinery and equipment	463.7	38.0	98.9	32.2	156.9	83.5	54.3	4
36	Electronic and other electric equipment	657.1	79.8	160.3	58.0	135.7	147.7	75.5	5
37	Transportation equipment	1 171.7	204.2	279.1	109.8	281.0	210.0	87.6	4
38	Instruments and related products	331.9	37.1	76.0	27.2	78.1	83.0	30.5	4
39	Miscellaneous manufacturing industries	89.7	8.5	13.6	12.7	26.4	16.5	12.0	5
	Alabama	380.0	82.8	51.0	49.7	62.7	111.7	22.2	6
20	Food and kindred products	21.5	2.6	2.9	3.4	1.2	5.2	6.2	19
22	Textile mill products	10.8	.5	1.7	1.2	1.0	2.3	4.2	14
24	Lumber and wood products	5.6	.9	1.1	.5	1.8	1.0	.3	14
25	Furniture and fixtures	1.9	.2	.2	.2	.3	.7	.3	36
26	Paper and allied products	84.2	21.7	9.9	13.9	15.1	22.8	.8	3
28	Chemicals and allied products	88.0	21.1	11.0	10.5	15.0	29.7	.6	10
29	Petroleum and coal products	10.4	.1	2.1	.2	2.4	5.3	.3	90
30	Rubber and miscellaneous plastics products	7.7	.7	1.0	1.3	1.9	1.7	1.0	19
32	Stone, clay, and glass products	15.1	5.0	1.6	2.4	.8	4.9	.5	21
33	Primary metal industries	80.2	24.5	7.2	10.1	8.6	25.9	3.8	19
34	Fabricated metal products	23.7	1.6	6.4	(D)	7.3	(D)	1.4	30
35	Industrial machinery and equipment	5.0	.7	1.1	.1	1.7	.7	.6	23
36	Electronic and other electric equipment	17.1	2.8	3.2	2.4	3.9	3.6	1.2	9
37	Transportation equipment	5.6	.4	1.2	(D)	.7	(D)	.6	28
38	Instruments and related products	1.2	—	—	(Z)	.3	.7	.1	67
39	Miscellaneous manufacturing industries	1.1	.1	.1	.1	.4	.2	.2	33

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992—Con.

Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	Alaska	31.4	12.4	5.8	5.5	(D)	(D)	.8	21
20	Food and kindred products	(D)	(D)	(D)	.1	(D)	.2	.6	(X)
26	Paper and allied products	27.1	11.3	5.0	5.3	1.3	(D)	(D)	25
28	Chemicals and allied products	(D)	(D)	(D)	-	(D)	(D)	(D)	(X)
	Arizona	129.4	24.9	21.1	22.8	17.3	34.1	9.1	10
20	Food and kindred products	1.1	(Z)	.1	.1	.1	.1	.7	29
26	Paper and allied products	8.0	.9	.5	.1	3.9	2.7	-	45
27	Printing and publishing	6.3	.7	.5	1.3	3.4	.4	.2	61
28	Chemicals and allied products	2.8	.1	.2	.1	1.1	1.1	.1	25
30	Rubber and miscellaneous plastics products	(D)	(D)	(D)	(D)	.4	(D)	.3	(X)
32	Stone, clay, and glass products	10.7	1.6	2.2	5.2	.6	1.1	.1	44
33	Primary metal industries	(D)	(D)	(D)	(D)	2.2	(D)	.1	(X)
34	Fabricated metal products	11.2	.2	1.4	2.5	.6	4.6	1.9	78
36	Electronic and other electric equipment	20.3	2.6	4.9	2.8	1.5	4.2	4.3	15
37	Transportation equipment	15.7	2.3	4.9	4.5	2.0	1.4	.6	36
38	Instruments and related products	2.7	.1	.7	.4	.5	.7	.3	28
	Arkansas	208.1	30.8	32.2	26.0	33.6	64.1	21.4	11
20	Food and kindred products	31.7	2.8	4.7	2.3	5.1	6.0	10.8	15
22	Textile mill products	1.9	(D)	.3	(D)	(D)	(D)	.5	8
24	Lumber and wood products	14.3	.8	2.8	2.3	7.1	.8	.4	23
25	Furniture and fixtures	1.7	(D)	(D)	(D)	.7	(D)	.3	11
26	Paper and allied products	49.7	14.0	5.9	10.4	3.7	13.4	2.3	10
27	Printing and publishing	3.2	(D)	(D)	.2	1.5	(D)	.3	48
28	Chemicals and allied products	67.8	8.8	10.7	5.8	7.1	35.0	.4	29
29	Petroleum and coal products	3.7	.5	.4	1.8	.5	.2	.3	82
30	Rubber and miscellaneous plastics products	4.4	.4	.7	.3	1.5	.5	1.0	20
32	Stone, clay, and glass products	3.2	.2	.5	.9	.1	.4	1.2	52
33	Primary metal industries	9.7	1.9	1.5	.9	.8	3.8	.8	46
34	Fabricated metal products	4.7	.6	.8	.3	1.4	1.0	.6	11
35	Industrial machinery and equipment	3.1	.1	.9	.1	.7	.9	.5	24
36	Electronic and other electric equipment	5.0	.1	1.4	.1	1.5	.9	.9	30
37	Transportation equipment	1.4	.1	(Z)	(Z)	.5	.3	.5	60
38	Instruments and related products	1.3	.1	.4	(D)	(D)	.2	.2	32
	California	1 492.6	144.3	244.3	211.6	302.7	403.1	186.6	4
20	Food and kindred products	154.8	6.8	12.3	11.8	25.3	12.8	86.0	10
22	Textile mill products	7.7	.5	.5	1.0	1.6	.6	3.6	24
24	Lumber and wood products	26.1	3.3	4.2	3.5	5.2	7.7	2.0	13
25	Furniture and fixtures	7.1	.4	1.5	.8	2.0	1.5	1.0	17
26	Paper and allied products	58.7	8.1	8.4	10.0	5.0	14.3	12.9	19
27	Printing and publishing	23.6	1.5	5.5	4.3	6.3	3.1	2.3	13
28	Chemicals and allied products	128.1	10.1	22.9	18.4	25.0	36.4	15.3	12
29	Petroleum and coal products	552.2	56.8	67.5	102.3	93.1	213.8	18.7	9
30	Rubber and miscellaneous plastics products	40.7	5.2	5.9	6.6	9.5	7.3	6.2	17
31	Leather and leather products	2.2	.1	.2	.4	.1	.8	.6	52
32	Stone, clay, and glass products	58.9	8.9	10.0	13.8	7.5	15.6	3.1	7
33	Primary metal industries	55.5	6.6	7.8	4.0	16.7	16.5	3.9	9
34	Fabricated metal products	70.5	5.5	17.8	8.0	13.8	19.7	5.7	13
35	Industrial machinery and equipment	23.6	.9	6.8	1.2	8.2	3.8	2.8	12
36	Electronic and other electric equipment	100.4	13.6	25.6	12.1	20.0	19.5	9.6	11
37	Transportation equipment	135.8	13.6	35.0	10.6	49.9	20.1	6.7	8
38	Instruments and related products	40.7	2.0	11.5	2.2	11.4	8.5	5.1	11
39	Miscellaneous manufacturing industries	5.9	.5	.8	.7	2.1	1.2	.6	21
	Colorado	83.5	10.7	15.4	7.2	15.9	26.4	7.9	12
20	Food and kindred products	26.8	(D)	3.3	2.4	4.5	10.0	(D)	9
26	Paper and allied products	1.3	.1	(Z)	.2	.8	(Z)	.1	57
27	Printing and publishing	1.5	.2	.2	.2	.4	.2	.3	41
28	Chemicals and allied products	10.9	1.3	.8	1.5	1.4	4.8	1.2	56
32	Stone, clay, and glass products	(D)	.1	.3	(D)	.6	(D)	(D)	(X)
34	Fabricated metal products	4.6	1.0	1.4	.7	.2	1.1	.1	12
35	Industrial machinery and equipment	7.1	(D)	2.1	.6	(D)	1.0	.9	30
36	Electronic and other electric equipment	11.5	1.8	2.7	.9	.8	4.4	.9	56
37	Transportation equipment	(D)	-	(D)	(Z)	3.3	(D)	-	(X)
38	Instruments and related products	8.0	(D)	(D)	(D)	(D)	2.2	.4	4
	Connecticut	168.5	15.7	38.0	9.6	51.7	44.3	9.1	5
20	Food and kindred products	1.0	(D)	(D)	(D)	(D)	(Z)	(D)	10
22	Textile mill products	2.0	.2	.3	.5	.3	.2	.4	43
26	Paper and allied products	8.7	1.5	1.2	2.4	2.9	.4	.2	43
27	Printing and publishing	2.5	.5	.3	.3	.7	.5	.2	25
28	Chemicals and allied products	33.9	3.4	8.6	.9	10.6	9.2	1.2	10
29	Petroleum and coal products	1.4	.4	.2	-	.4	.3	(Z)	45
30	Rubber and miscellaneous plastics products	3.0	.2	.5	.2	1.0	.5	.8	44
32	Stone, clay, and glass products	2.1	.1	.3	.2	1.1	.2	.1	53
33	Primary metal industries	6.5	.5	1.3	.8	1.6	1.4	1.1	27
34	Fabricated metal products	20.2	2.0	4.3	1.7	5.3	4.8	2.1	12
35	Industrial machinery and equipment	11.3	.1	1.8	.6	7.9	.8	.1	19
36	Electronic and other electric equipment	7.1	.5	2.0	.4	1.5	2.0	.6	18
37	Transportation equipment	(D)	(D)	(D)	(D)	(D)	(D)	1.4	(X)
38	Instruments and related products	5.5	.4	1.0	.2	1.6	1.7	.6	41
39	Miscellaneous manufacturing industries	(D)	.4	1.0	.1	.6	(D)	(D)	(X)
	Delaware	145.5	16.7	40.1	13.4	21.3	44.7	9.2	15
20	Food and kindred products	6.0	.4	.8	1.3	.9	.5	1.9	30
26	Paper and allied products	(D)	(Z)	(D)	-	(D)	(D)	(D)	(X)
28	Chemicals and allied products	48.5	8.5	8.5	2.3	13.8	9.8	5.6	11
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	1.5	(D)	.2	(D)	.5	.1	.5	29
37	Transportation equipment	(D)	(D)	(D)	(D)	2.2	(D)	(D)	(X)

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	District of Columbia	1.4	.2	.3	.1	.4	.2	.4	40
27	Printing and publishing	1.3	.2	.2	.1	.3	.1	.3	43
	Florida	304.3	44.1	51.1	37.6	55.1	82.2	34.1	5
20	Food and kindred products	54.8	4.6	8.5	7.8	8.4	17.2	8.3	16
24	Lumber and wood products	3.3	.3	.6	.6	.9	.5	.4	38
26	Paper and allied products	72.3	12.9	7.6	10.2	12.8	19.7	9.0	3
27	Printing and publishing	4.3	.4	.7	.3	.8	.9	1.2	23
28	Chemicals and allied products	78.7	17.2	15.8	9.8	10.6	23.3	2.0	8
29	Petroleum and coal products	1.2	.1	.1	.2	.2	.6	.1	33
30	Rubber and miscellaneous plastics products	5.0	.2	.7	.5	1.3	.8	1.7	40
32	Stone, clay, and glass products	10.4	1.0	1.7	2.2	2.2	2.5	.7	16
33	Primary metal industries	3.8	.2	.4	.2	1.0	1.8	.2	38
34	Fabricated metal products	15.8	1.4	3.9	2.2	2.0	4.3	2.1	26
35	Industrial machinery and equipment	9.6	.5	1.4	.4	4.6	.6	2.2	32
36	Electronic and other electric equipment	15.8	2.8	3.5	1.7	3.1	2.7	1.9	10
37	Transportation equipment	19.6	1.6	4.3	.8	5.7	4.6	2.5	40
38	Instruments and related products	6.5	.6	1.5	.2	1.2	2.1	1.0	5
39	Miscellaneous manufacturing industries	1.7	.1	.3	.1	.4	.6	.3	49
	Georgia	375.7	71.7	60.0	53.2	59.4	90.6	40.8	6
20	Food and kindred products	34.4	5.6	4.7	3.3	4.0	6.3	10.6	12
21	Tobacco products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
22	Textile mill products	25.9	1.8	3.5	2.1	5.1	2.3	11.2	6
24	Lumber and wood products	9.2	1.4	1.8	1.4	1.7	1.9	.9	12
25	Furniture and fixtures	1.3	.1	.3	.1	.4	.2	.2	22
26	Paper and allied products	104.3	24.6	16.3	20.8	13.7	26.6	2.3	10
27	Printing and publishing	8.3	2.3	1.1	1.4	1.0	1.8	.7	26
28	Chemicals and allied products	79.4	14.0	11.0	12.4	8.7	27.6	5.7	17
29	Petroleum and coal products	2.8	.5	.2	.4	1.1	(D)	(D)	34
30	Rubber and miscellaneous plastics products	14.9	.7	1.6	.8	4.4	6.1	1.3	47
32	Stone, clay, and glass products	13.4	1.9	2.0	3.2	1.4	3.9	1.0	7
33	Primary metal industries	10.5	.7	2.3	.4	3.4	2.5	1.1	27
34	Fabricated metal products	11.8	1.0	3.4	1.7	2.3	2.2	1.2	30
35	Industrial machinery and equipment	11.3	2.1	2.6	.9	2.8	2.2	.6	46
36	Electronic and other electric equipment	5.2	.7	1.4	.3	1.2	.9	.8	10
37	Transportation equipment	35.2	13.0	6.7	3.4	6.0	4.3	1.7	20
38	Instruments and related products	1.4	.3	.2	(Z)	.2	.3	.4	43
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	(D)	(D)	.7	(D)	(X)
	Hawaii	12.8	.9	1.3	1.1	7.9	1.0	.7	33
20	Food and kindred products	3.5	.5	.2	.5	1.6	.3	.5	46
29	Petroleum and coal products	6.2	-	.5	.1	5.3	.3	-	61
32	Stone, clay, and glass products	1.9	.1	.5	.3	.7	.3	(Z)	26
	Idaho	60.4	11.0	21.4	5.9	6.0	12.0	4.1	13
20	Food and kindred products	13.5	2.6	3.6	1.2	1.6	2.5	2.1	22
24	Lumber and wood products	5.1	.6	.9	.5	(D)	.9	(D)	14
26	Paper and allied products	(D)	(D)	(D)	(D)	(Z)	(D)	(Z)	(X)
28	Chemicals and allied products	26.8	4.1	13.5	2.6	(D)	(D)	(Z)	26
34	Fabricated metal products	3.1	.5	.5	.2	.3	1.0	.6	58
35	Industrial machinery and equipment	1.0	.2	.4	(Z)	.1	.1	.1	29
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
	Illinois	896.1	103.8	157.2	110.1	216.2	224.9	84.0	6
20	Food and kindred products	70.9	5.7	8.6	6.6	13.0	12.7	24.3	9
24	Lumber and wood products	2.6	.6	.2	.2	.6	.8	.1	36
25	Furniture and fixtures	6.1	.3	2.2	.5	1.5	1.1	.5	34
26	Paper and allied products	48.4	5.5	4.4	7.2	13.2	11.0	7.1	38
27	Printing and publishing	23.5	2.9	3.9	4.7	4.8	5.1	2.0	10
28	Chemicals and allied products	183.1	22.7	28.0	17.2	40.3	51.9	23.0	9
29	Petroleum and coal products	202.7	17.4	40.7	36.3	46.0	61.6	.6	14
30	Rubber and miscellaneous plastics products	21.8	1.4	2.7	1.5	7.1	4.6	4.5	10
31	Leather and leather products	1.4	(Z)	.1	.1	.3	.1	.7	49
32	Stone, clay, and glass products	13.7	1.9	2.2	2.8	3.2	2.4	1.2	19
33	Primary metal industries	121.4	24.3	22.7	18.3	23.5	29.3	3.1	6
34	Fabricated metal products	67.7	5.4	10.9	6.5	25.7	13.6	5.5	16
35	Industrial machinery and equipment	43.2	5.6	9.4	2.2	12.8	10.7	2.6	9
36	Electronic and other electric equipment	46.4	2.5	11.7	3.2	13.4	10.2	5.2	47
37	Transportation equipment	32.4	6.8	7.0	1.8	8.1	7.7	1.0	32
38	Instruments and related products	5.8	.4	1.4	.3	1.5	1.0	1.1	28
39	Miscellaneous manufacturing industries	4.3	.2	.9	.7	1.0	.8	.7	13
	Indiana	706.6	103.3	119.6	111.4	130.0	188.7	53.6	3
20	Food and kindred products	33.0	2.6	4.1	2.7	4.2	3.8	15.6	11
24	Lumber and wood products	5.7	.2	1.1	.6	2.0	1.1	.7	19
25	Furniture and fixtures	5.7	1.1	.9	1.2	1.1	.7	.7	20
26	Paper and allied products	8.4	.8	1.2	.9	2.5	1.6	1.4	23
27	Printing and publishing	8.8	1.4	.9	2.3	1.3	1.9	.9	16
28	Chemicals and allied products	154.5	31.1	27.9	24.9	16.2	49.9	4.5	5
29	Petroleum and coal products	77.5	(D)	12.7	(D)	18.7	(D)	.6	9
30	Rubber and miscellaneous plastics products	17.9	1.0	3.9	1.7	5.9	3.6	1.8	14
32	Stone, clay, and glass products	16.2	1.1	3.1	3.2	4.5	3.1	1.1	21
33	Primary metal industries	227.8	32.9	26.4	50.8	38.1	72.2	7.5	6
34	Fabricated metal products	37.2	3.6	7.8	4.1	6.9	8.0	6.9	13
35	Industrial machinery and equipment	27.9	2.4	4.3	1.8	12.8	4.4	2.2	19
36	Electronic and other electric equipment	27.1	1.5	9.8	1.9	5.0	5.8	3.1	6
37	Transportation equipment	53.1	5.2	15.1	3.4	9.5	15.1	4.9	7
38	Instruments and related products	2.8	.3	.1	(Z)	.5	1.1	.8	38
39	Miscellaneous manufacturing industries	2.0	(D)	.3	(D)	.6	(D)	.3	17

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	State and major group	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	Iowa	166.9	18.7	24.2	32.7	31.9	35.1	24.3	7
20	Food and kindred products	53.2	7.9	5.1	15.9	5.2	5.1	14.0	6
24	Lumber and wood products	3.5	.7	.6	.4	1.0	.3	.5	31
26	Paper and allied products	4.1	(D)	(D)	.3	.5	1.8	.2	26
27	Printing and publishing	4.2	(D)	.6	(D)	1.1	(D)	.7	26
28	Chemicals and allied products	22.9	2.6	3.6	2.3	4.0	8.3	2.2	2
30	Rubber and miscellaneous plastics products	6.6	.2	.8	.1	2.8	1.0	1.7	20
32	Stone, clay, and glass products	6.3	.7	1.1	.5	.5	3.4	.2	25
33	Primary metal industries	24.1	1.5	2.7	9.2	4.4	5.5	.9	38
34	Fabricated metal products	3.2	.2	.4	(Z)	2.3	.2	.2	21
35	Industrial machinery and equipment	17.4	1.5	4.8	.2	6.0	3.8	1.0	6
36	Electronic and other electric equipment	11.0	.9	2.5	.7	1.4	4.1	1.4	19
37	Transportation equipment	4.7	.4	.8	2.2	.7	.4	.2	47
38	Instruments and related products	4.4	(D)	(D)	(D)	1.7	(D)	.9	61
	Kansas	107.3	13.1	19.7	21.4	20.3	23.2	9.6	11
20	Food and kindred products	9.7	1.0	1.0	1.3	2.4	.9	3.0	15
26	Paper and allied products	4.7	(D)	.9	.6	1.0	1.5	(D)	46
27	Printing and publishing	2.2	.3	.9	.1	.3	.2	.2	25
28	Chemicals and allied products	19.2	3.0	4.7	9.4	3.3	3.6	1.2	14
29	Petroleum and coal products	23.4	3.1	5.5	7.9	2.3	4.2	.5	34
30	Rubber and miscellaneous plastics products	(D)	.2	(D)	(D)	1.1	.7	.6	(X)
31	Leather and leather products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	5.5	1.1	.7	.4	(D)	(D)	.2	7
33	Primary metal industries	2.8	.4	.3	.9	.5	.6	.2	52
34	Fabricated metal products	1.4	(Z)	1.0	-	.1	.2	(Z)	50
35	Industrial machinery and equipment	3.2	.1	.6	.4	1.4	.5	.3	20
36	Electronic and other electric equipment	3.0	.6	.8	.6	.3	(D)	(D)	59
37	Transportation equipment	23.9	2.8	1.7	4.8	4.6	7.8	2.2	25
38	Instruments and related products	2.0	.1	.5	.1	.7	.1	.4	83
	Kentucky	324.8	61.1	62.9	50.5	53.0	74.6	22.7	5
20	Food and kindred products	10.9	.8	1.2	.6	1.4	1.7	5.1	30
21	Tobacco products	(D)	(D)	-	-	(D)	-	(D)	(X)
22	Textile mill products	1.6	(Z)	.1	(Z)	.2	.1	1.1	32
24	Lumber and wood products	1.9	.3	.3	.2	.4	.5	.2	19
25	Furniture and fixtures	1.8	-	1.2	-	.3	.3	(Z)	71
26	Paper and allied products	31.6	5.3	7.5	7.5	5.6	4.6	1.0	30
27	Printing and publishing	6.3	1.2	1.2	1.3	(D)	(D)	.9	9
28	Chemicals and allied products	97.9	19.2	18.8	7.6	15.6	32.2	4.5	10
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)	(D)	-	(X)
30	Rubber and miscellaneous plastics products	7.1	.7	.6	.3	2.0	1.9	1.6	20
32	Stone, clay, and glass products	7.1	1.2	1.6	.3	1.1	1.9	1.0	10
33	Primary metal industries	53.3	10.5	12.1	10.4	5.1	14.8	.4	8
34	Fabricated metal products	14.4	1.4	2.8	3.3	2.0	3.2	1.8	31
35	Industrial machinery and equipment	6.3	(D)	1.6	.6	1.9	1.0	(D)	13
36	Electronic and other electric equipment	12.4	1.4	2.5	.8	3.2	3.0	1.5	19
37	Transportation equipment	(D)	(D)	(D)	(D)	(D)	2.7	(D)	(X)
39	Miscellaneous manufacturing industries	2.1	.3	.2	.6	.5	.2	.3	35
	Louisiana	920.0	167.5	154.2	104.3	162.2	323.6	8.1	5
20	Food and kindred products	8.1	.7	.5	.7	3.0	1.0	2.2	28
24	Lumber and wood products	5.7	.7	(D)	(D)	2.4	.7	(D)	20
26	Paper and allied products	45.9	17.6	6.4	8.2	(D)	9.4	(D)	3
28	Chemicals and allied products	527.3	100.5	93.6	35.8	87.4	208.9	1.2	7
29	Petroleum and coal products	291.2	44.9	37.1	53.9	56.5	97.2	1.7	1
30	Rubber and miscellaneous plastics products	1.6	.3	.1	.3	.1	.3	.4	46
32	Stone, clay, and glass products	2.9	.1	.7	.5	.3	.6	.7	37
33	Primary metal industries	5.9	1.5	.8	1.4	.8	1.5	(Z)	52
34	Fabricated metal products	3.7	.1	.8	.3	1.6	.6	.2	17
36	Electronic and other electric equipment	4.2	.7	(D)	(D)	(D)	1.5	(Z)	31
37	Transportation equipment	21.7	.4	11.5	2.3	5.2	1.6	.8	42
	Maine	123.5	28.3	16.0	9.7	16.2	45.5	7.8	10
22	Textile mill products	2.6	(Z)	.2	.3	.7	.1	1.3	23
24	Lumber and wood products	1.9	.5	.3	.2	.2	.5	.1	6
26	Paper and allied products	86.9	24.2	9.4	5.8	9.2	36.1	2.3	12
28	Chemicals and allied products	5.1	.1	.5	.5	.6	1.8	1.6	87
30	Rubber and miscellaneous plastics products	2.4	(Z)	.2	.6	1.1	.1	.4	36
31	Leather and leather products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	5.2	1.3	1.0	.1	.6	2.2	.1	64
34	Fabricated metal products	4.0	.3	.9	.9	.8	.6	.5	68
35	Industrial machinery and equipment	1.1	.1	.2	.1	.6	-	(Z)	81
36	Electronic and other electric equipment	4.0	.6	.7	.6	.5	1.5	.2	49
37	Transportation equipment	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
	Maryland	205.6	32.0	30.4	29.0	38.0	51.7	24.6	6
20	Food and kindred products	29.5	3.0	3.8	1.9	4.3	7.0	9.5	25
22	Textile mill products	1.0	(Z)	.1	.1	.2	.1	.5	46
24	Lumber and wood products	1.2	.1	.2	.1	.7	(Z)	.1	47
25	Furniture and fixtures	1.0	(Z)	.2	.1	.4	.2	.1	57
26	Paper and allied products	13.3	(D)	.8	(D)	2.1	2.2	(D)	7
27	Printing and publishing	5.7	.4	1.2	1.4	1.5	.5	.8	25
28	Chemicals and allied products	49.6	7.3	5.9	2.9	13.4	16.4	3.6	10
29	Petroleum and coal products	(D)	.3	(D)	(D)	.8	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	4.6	.2	.7	.5	1.7	.5	1.0	22
32	Stone, clay, and glass products	3.5	.4	1.0	.5	.7	.9	(Z)	12
33	Primary metal industries	(D)	(D)	7.4	(D)	3.2	(D)	.1	(X)
34	Fabricated metal products	3.6	.2	.7	.6	1.4	.6	.1	42
35	Industrial machinery and equipment	3.4	.1	.4	.1	1.7	.1	1.0	30
36	Electronic and other electric equipment	1.9	(Z)	.3	.2	.6	.4	.3	36
37	Transportation equipment	15.1	2.7	3.6	2.4	3.6	2.0	.8	49
38	Instruments and related products	7.1	(D)	(D)	(Z)	1.2	.9	1.0	13

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media					Standard error of estimate (PAOC) (percent)	
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous		Payments to government
	Massachusetts	246.2	24.6	45.7	22.7	71.4	42.9	38.9	7
20	Food and kindred products	20.8	2.2	2.0	2.3	2.6	1.1	10.6	35
22	Textile mill products	12.5	1.0	.9	1.5	2.3	1.2	5.6	16
25	Furniture and fixtures	1.2	.1	.2	.2	.3	.2	.2	45
26	Paper and allied products	19.2	2.8	3.4	1.7	4.1	5.5	1.7	32
27	Printing and publishing	5.5	.2	.7	.5	2.7	.8	.7	18
28	Chemicals and allied products	36.7	3.2	7.6	2.7	11.0	6.8	5.5	21
29	Petroleum and coal products	3.5	.7	.3	.6	1.0	.6	.3	35
30	Rubber and miscellaneous plastics products	17.7	.9	1.9	2.4	4.6	5.0	2.8	20
31	Leather and leather products	1.4	.2	.2	(Z)	.2	.7	.1	51
32	Stone, clay, and glass products	1.8	.3	.2	.1	.7	.3	.3	30
33	Primary metal industries	12.2	2.4	3.1	1.0	2.9	1.8	.9	24
34	Fabricated metal products	26.7	2.9	4.6	3.0	9.9	4.2	2.1	23
35	Industrial machinery and equipment	6.2	.4	1.0	.4	2.6	.9	.9	19
36	Electronic and other electric equipment	33.4	3.5	9.5	3.0	7.0	6.3	4.1	17
37	Transportation equipment	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
38	Instruments and related products	34.1	3.4	7.6	2.9	12.4	5.8	2.1	11
39	Miscellaneous manufacturing industries	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
	Michigan	763.0	118.1	154.7	89.1	169.2	156.1	75.8	3
20	Food and kindred products	42.5	3.8	5.2	2.5	9.5	5.3	16.1	14
24	Lumber and wood products	7.6	1.4	1.0	2.0	2.2	.6	.4	18
25	Furniture and fixtures	9.5	1.6	1.6	1.0	2.8	1.1	1.2	10
26	Paper and allied products	60.9	10.1	7.4	4.1	15.9	11.9	11.6	14
27	Printing and publishing	3.5	.4	.3	.3	1.5	.6	.5	24
28	Chemicals and allied products	156.8	22.4	35.4	12.9	41.7	34.2	10.2	9
29	Petroleum and coal products	1.4	(Z)	.2	.3	.3	.3	.3	30
30	Rubber and miscellaneous plastics products	25.3	2.9	2.8	4.6	6.8	4.7	3.5	26
31	Leather and leather products	3.3	.3	.6	.2	.2	1.3	.8	37
32	Stone, clay, and glass products	19.3	3.7	3.2	1.9	1.5	7.3	1.6	9
33	Primary metal industries	122.4	10.2	29.6	18.9	28.8	29.9	5.1	7
34	Fabricated metal products	62.7	4.9	12.6	3.4	13.8	11.7	6.3	10
35	Industrial machinery and equipment	25.3	1.4	6.9	4.1	5.6	4.8	2.4	11
36	Electronic and other electric equipment	6.8	1.2	1.8	.4	1.7	.8	.9	34
37	Transportation equipment	218.0	53.0	44.2	(D)	34.7	(D)	14.2	5
38	Instruments and related products	5.7	.5	1.5	(D)	1.2	(D)	.7	8
39	Miscellaneous manufacturing industries	1.3	.3	.1	.2	.5	.1	(Z)	30
	Minnesota	254.5	40.5	36.2	31.3	44.9	57.0	44.6	6
20	Food and kindred products	56.2	7.2	6.4	6.4	7.7	9.0	19.5	18
24	Lumber and wood products	12.3	1.6	3.0	3.5	2.2	1.3	.8	18
25	Furniture and fixtures	(D)	.1	(D)	(D)	(D)	.5	(D)	(X)
26	Paper and allied products	35.9	8.4	3.5	3.8	2.2	7.0	10.9	8
27	Printing and publishing	8.6	1.8	1.6	1.2	1.9	1.3	.8	15
28	Chemicals and allied products	19.5	(D)	.6	.2	3.6	(D)	.6	16
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	3.1	.1	.4	.1	1.0	1.0	.5	29
32	Stone, clay, and glass products	7.6	1.3	.6	.8	.4	3.0	1.5	10
33	Primary metal industries	5.8	.6	1.2	.7	2.1	.8	.4	30
34	Fabricated metal products	16.8	.8	5.6	1.2	2.5	4.2	2.6	12
35	Industrial machinery and equipment	18.5	.5	4.0	2.7	6.0	3.1	2.1	39
36	Electronic and other electric equipment	8.0	.8	1.9	.1	2.7	1.3	1.3	15
37	Transportation equipment	12.9	5.4	2.4	1.4	2.1	.9	.8	31
38	Instruments and related products	3.5	.2	.8	.1	.5	1.1	.8	25
	Mississippi	269.1	51.1	35.2	36.5	33.6	104.2	8.5	7
20	Food and kindred products	8.5	.4	.6	.7	1.9	1.5	3.3	18
22	Textile mill products	1.8	.1	.4	.1	.5	.7	.2	6
24	Lumber and wood products	7.0	.9	1.3	1.9	1.6	1.1	.2	10
25	Furniture and fixtures	5.1	.3	.8	.4	1.8	1.0	.8	20
26	Paper and allied products	39.7	(D)	3.7	(D)	2.9	(D)	.4	5
27	Printing and publishing	2.5	(D)	(D)	(D)	.4	(D)	.4	18
28	Chemicals and allied products	56.7	9.0	7.6	5.0	6.5	28.3	.3	9
29	Petroleum and coal products	106.9	(D)	11.1	(D)	7.5	(D)	-	15
30	Rubber and miscellaneous plastics products	5.2	.2	1.0	.9	2.3	.3	.6	33
32	Stone, clay, and glass products	2.9	.4	.6	.5	.5	.8	.1	15
33	Primary metal industries	9.1	1.7	1.4	3.1	.7	2.0	.2	54
34	Fabricated metal products	3.0	.3	.3	(D)	(D)	.6	.3	17
35	Industrial machinery and equipment	4.4	.2	.5	.1	2.5	.7	.5	33
36	Electronic and other electric equipment	6.5	.4	1.5	.4	1.6	1.8	.8	21
37	Transportation equipment	8.4	.7	(D)	.2	(D)	.7	.4	8
39	Miscellaneous manufacturing industries	1.4	.3	.2	.3	(Z)	.5	.1	32
	Missouri	287.6	42.8	54.3	35.8	61.6	60.5	32.6	4
20	Food and kindred products	37.3	2.2	4.1	4.8	4.2	5.5	16.5	11
24	Lumber and wood products	2.0	.2	.4	.1	.3	1.0	.1	12
25	Furniture and fixtures	3.1	.2	.7	.3	.6	.5	.9	18
26	Paper and allied products	8.6	1.5	.9	1.0	4.0	.6	.6	14
27	Printing and publishing	6.9	.9	2.0	.7	1.8	.7	.7	22
28	Chemicals and allied products	82.4	21.3	11.7	10.0	17.1	18.6	3.7	7
30	Rubber and miscellaneous plastics products	4.5	.7	.3	.2	.9	1.7	.7	13
31	Leather and leather products	3.8	(D)	.6	(D)	.3	(D)	.5	20
32	Stone, clay, and glass products	14.4	1.9	3.6	2.8	1.8	3.9	.5	10
33	Primary metal industries	41.6	7.0	6.4	8.1	5.6	13.6	.9	17
34	Fabricated metal products	24.5	1.2	6.5	1.7	9.0	4.1	2.0	9
35	Industrial machinery and equipment	5.4	.3	1.2	.3	1.6	1.0	.9	34
36	Electronic and other electric equipment	17.0	1.7	4.5	1.0	3.8	3.9	1.9	20
37	Transportation equipment	32.7	(D)	11.3	(D)	8.5	(D)	2.4	6
38	Instruments and related products	1.0	-	(Z)	-	.9	.1	-	63
39	Miscellaneous manufacturing industries	1.7	.1	.3	.2	6	.4	.2	39

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
	Montana	25.5	2.2	4.8	6.1	(D)	(D)	.2	12
24	Lumber and wood products	1.8	.1	.5	.2	.8	.2	.1	21
26	Paper and allied products	(D)	(D)	(D)	(D)	(D)	(D)	-	(X)
28	Chemicals and allied products	4.0	.2	.9	2.1	.7	(Z)	-	56
32	Stone, clay, and glass products	1.4	.2	.2	.8	.1	(Z)	-	88
33	Primary metal industries	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	(X)
	Nebraska	60.0	6.8	11.6	5.3	12.5	14.4	9.4	12
20	Food and kindred products	17.9	2.4	2.1	2.2	3.0	2.2	6.0	13
26	Paper and allied products	1.3	-	.7	-	.5	(Z)	.1	48
27	Printing and publishing	1.0	.2	.2	(Z)	.1	.4	.1	36
28	Chemicals and allied products	5.0	.4	1.0	.7	1.2	1.2	.4	40
30	Rubber and miscellaneous plastics products	2.3	(Z)	(D)	(D)	.4	.2	.3	8
31	Leather and leather products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	(D)	(D)	(D)	(D)	(D)	(D)	-	(X)
33	Primary metal industries	4.2	.6	.6	(D)	1.4	1.2	(D)	26
34	Fabricated metal products	5.5	1.7	.7	.4	.5	2.0	.3	54
35	Industrial machinery and equipment	5.9	.3	1.3	.3	.7	2.9	.5	32
36	Electronic and other electric equipment	9.1	.3	2.8	.2	2.9	2.6	.3	54
37	Transportation equipment	1.1	(Z)	(D)	(Z)	.6	(D)	(Z)	13
38	Instruments and related products	1.3	.1	.1	(Z)	.3	.6	.3	38
	Nevada	11.0	2.2	1.5	2.1	2.4	2.0	.8	20
26	Paper and allied products	1.7	.1	.3	-	1.1	.2	(Z)	98
27	Printing and publishing	(D)	(D)	(D)	(D)	(Z)	(D)	(D)	(X)
28	Chemicals and allied products	(D)	(D)	(D)	(D)	.2	(D)	(D)	(X)
30	Rubber and miscellaneous plastics products	1.6	.2	.2	.1	.7	.1	.2	62
32	Stone, clay, and glass products	2.2	.4	.3	.6	(Z)	.8	(Z)	30
	New Hampshire	44.1	4.2	9.7	4.6	13.0	8.0	4.5	15
20	Food and kindred products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
22	Textile mill products	1.1	(Z)	.1	.2	.2	.1	.5	10
26	Paper and allied products	12.1	2.1	1.8	1.3	2.7	3.9	.3	31
27	Printing and publishing	1.2	(Z)	.8	.1	.3	(Z)	(Z)	32
30	Rubber and miscellaneous plastics products	(D)	(D)	(D)	.3	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	2.0	.3	.3	(Z)	.6	.5	.3	69
33	Primary metal industries	2.8	.1	(D)	(D)	1.0	.5	.4	17
34	Fabricated metal products	5.0	.6	.6	.4	2.7	.5	.2	51
35	Industrial machinery and equipment	2.5	.2	.5	.3	1.0	.2	.3	30
36	Electronic and other electric equipment	4.4	.3	2.0	.2	.5	1.1	.4	34
37	Transportation equipment	4.0	.2	.9	.4	2.0	.2	.2	88
38	Instruments and related products	1.9	.1	.5	.2	.3	.5	.2	37
	New Jersey	673.8	62.5	126.1	54.1	164.3	145.7	121.1	13
20	Food and kindred products	47.1	8.1	6.2	2.9	7.8	7.4	14.8	17
22	Textile mill products	7.1	.3	.8	.2	2.1	1.0	2.7	38
25	Furniture and fixtures	1.7	.1	.4	.2	.6	.2	.2	36
26	Paper and allied products	71.8	2.5	5.0	3.0	6.6	6.2	48.5	37
27	Printing and publishing	9.6	1.4	1.4	1.0	2.2	2.2	1.3	17
28	Chemicals and allied products	310.0	26.0	60.1	15.8	89.7	59.4	39.1	27
29	Petroleum and coal products	110.9	13.9	(D)	18.4	18.5	47.3	(D)	13
30	Rubber and miscellaneous plastics products	14.2	1.3	1.0	1.9	4.7	2.3	3.0	22
31	Leather and leather products	(D)	(D)	(D)	(Z)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	17.0	.9	5.3	2.5	3.3	3.5	1.5	31
33	Primary metal industries	19.7	3.1	3.1	2.4	6.6	3.3	1.0	25
34	Fabricated metal products	22.3	1.6	3.2	3.0	4.8	7.1	2.6	16
35	Industrial machinery and equipment	8.0	.5	1.5	.4	3.7	.8	1.0	19
36	Electronic and other electric equipment	8.6	.5	1.6	.4	4.3	1.2	.6	26
37	Transportation equipment	2.1	.2	.2	(Z)	1.1	.2	.4	47
38	Instruments and related products	13.6	.8	2.6	.3	5.8	1.8	1.7	15
39	Miscellaneous manufacturing industries	(D)	(D)	1.0	1.1	(D)	(D)	.7	(X)
	New Mexico	63.4	13.5	10.4	21.6	4.6	12.6	.7	42
24	Lumber and wood products	1.0	.1	.4	(D)	(D)	.1	(D)	25
29	Petroleum and coal products	29.6	8.3	5.3	9.6	2.1	4.3	-	90
32	Stone, clay, and glass products	1.6	.1	.6	.5	-	.4	-	68
33	Primary metal industries	(D)	(D)	(D)	(D)	(D)	(D)	-	(X)
36	Electronic and other electric equipment	(D)	(D)	(D)	(D)	.6	(D)	(D)	(X)
	New York	650.6	83.6	116.0	72.2	133.6	170.8	74.2	5
20	Food and kindred products	63.3	4.0	9.7	9.7	12.7	11.0	16.1	14
22	Textile mill products	5.1	.1	.4	.2	1.1	.4	2.9	40
24	Lumber and wood products	4.9	.6	.9	1.1	.8	1.4	.2	53
25	Furniture and fixtures	4.4	.3	.6	.3	1.1	1.4	.8	23
26	Paper and allied products	71.5	11.2	8.3	6.3	11.1	24.4	10.3	22
27	Printing and publishing	12.7	.5	1.9	1.0	6.2	(D)	(D)	15
28	Chemicals and allied products	90.1	15.6	16.0	7.6	21.8	21.1	7.9	17
30	Rubber and miscellaneous plastics products	14.1	.8	2.2	1.2	4.8	2.3	2.7	14
31	Leather and leather products	6.6	.5	.8	.1	1.4	1.4	2.4	46
32	Stone, clay, and glass products	29.1	2.0	3.7	3.9	5.6	10.0	3.8	7
33	Primary metal industries	67.5	12.7	10.7	10.1	13.0	18.2	2.7	19
34	Fabricated metal products	39.3	2.5	7.4	3.7	7.9	8.1	9.6	16
35	Industrial machinery and equipment	43.4	6.3	7.1	2.8	11.5	11.8	3.8	7
36	Electronic and other electric equipment	40.4	4.6	9.4	4.4	8.9	10.2	2.9	10
37	Transportation equipment	34.3	3.4	9.7	3.1	9.1	5.4	3.7	11
38	Instruments and related products	116.5	18.0	26.3	15.6	14.5	(D)	(D)	6
39	Miscellaneous manufacturing industries	6.7	.4	.7	1.1	1.9	(D)	(D)	11
	North Carolina	554.4	67.9	84.3	75.7	132.8	114.0	79.7	3
20	Food and kindred products	56.2	10.5	6.1	9.1	3.9	10.1	16.5	15
21	Tobacco products	17.1	4.0	4.8	2.8	2.1	.9	2.6	11
22	Textile mill products	86.3	5.5	9.9	15.4	8.1	9.1	38.3	7
24	Lumber and wood products	13.9	3.2	1.8	3.2	2.7	2.0	1.1	13
25	Furniture and fixtures	26.6	2.9	3.7	7.4	4.0	6.5	2.1	15

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Kind of cost for all media							Standard error of estimate (PAOC) (percent)
		Total PAOC	Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
North Carolina—Con.									
26	Paper and allied products	121.1	15.2	16.2	(D)	(D)	(D)	1.0	2
27	Printing and publishing	6.8	.7	1.1	1.4	1.2	.6	1.8	20
28	Chemicals and allied products	110.8	11.6	18.0	10.9	21.9	43.0	5.5	6
30	Rubber and miscellaneous plastics products	17.8	1.8	3.4	3.0	3.9	3.1	2.5	9
32	Stone, clay, and glass products	17.0	2.5	4.1	(D)	(D)	(D)	.9	7
33	Primary metal industries	14.2	1.8	3.3	1.6	3.5	3.6	.5	34
34	Fabricated metal products	12.1	1.8	2.4	1.2	3.4	2.5	.9	18
35	Industrial machinery and equipment	16.0	1.0	2.6	.7	6.9	3.7	1.1	21
36	Electronic and other electric equipment	20.3	3.5	3.7	1.7	4.8	5.1	1.6	39
37	Transportation equipment	8.9	.8	1.7	1.1	1.4	1.3	2.5	39
38	Instruments and related products	6.5	.8	1.3	.4	2.4	1.3	.4	29
39	Miscellaneous manufacturing industries	1.5	.2	.2	.3	.5	.1	.2	44
North Dakota									
20	Food and kindred products	5.1	1.6	.9	.9	1.0	.3	.4	34
29	Petroleum and coal products	12.6	3.5	1.8	1.0	4.0	2.3	-	78
Ohio									
		1 030.8	125.5	168.4	131.9	232.5	262.9	109.6	4
20	Food and kindred products	55.9	8.5	4.9	7.8	6.4	7.5	20.9	23
22	Textile mill products	3.8	.5	.6	.8	1.4	.2	.2	37
24	Lumber and wood products	6.2	.8	.8	1.3	2.7	.3	.4	19
25	Furniture and fixtures	(D)	(D)	(D)	(D)	.8	(D)	.3	(X)
26	Paper and allied products	55.0	5.4	7.7	5.1	9.8	18.6	8.4	16
27	Printing and publishing	7.8	1.4	.8	1.5	2.3	.5	1.3	17
28	Chemicals and allied products	225.7	20.4	32.5	13.0	57.5	78.1	24.2	11
29	Petroleum and coal products	(D)	(D)	(D)	(D)	16.1	(D)	.7	(X)
30	Rubber and miscellaneous plastics products	38.9	2.3	4.6	3.4	12.3	7.8	8.5	10
32	Stone, clay, and glass products	50.0	8.7	8.2	7.6	9.4	12.7	3.5	9
33	Primary metal industries	266.5	41.8	36.5	59.0	53.1	69.0	7.0	4
34	Fabricated metal products	77.2	7.0	19.7	6.4	13.8	20.6	9.7	8
35	Industrial machinery and equipment	45.9	2.9	12.1	4.6	13.0	8.0	5.3	7
36	Electronic and other electric equipment	34.8	3.2	7.3	1.5	7.9	10.0	4.8	21
37	Transportation equipment	108.9	16.0	23.2	14.9	24.2	17.1	13.6	6
38	Instruments and related products	2.1	.1	.3	.1	1.0	.2	.3	41
39	Miscellaneous manufacturing industries	1.8	.3	.2	.3	.6	.1	.2	31
Oklahoma									
		117.0	12.2	20.3	17.4	32.0	25.6	9.5	9
20	Food and kindred products	6.0	1.3	.8	.8	.6	.7	1.7	29
26	Paper and allied products	12.4	3.1	1.5	1.7	2.5	3.4	.2	29
27	Printing and publishing	2.4	.2	.2	.2	1.3	.1	.3	18
28	Chemicals and allied products	7.2	1.3	.9	1.5	1.3	1.3	.9	25
29	Petroleum and coal products	30.3	(D)	(D)	7.3	9.5	5.9	.2	21
30	Rubber and miscellaneous plastics products	5.9	.5	.5	.6	2.1	.9	1.3	18
32	Stone, clay, and glass products	6.6	1.0	1.0	1.1	1.3	1.7	.4	18
33	Primary metal industries	15.0	1.5	2.1	1.2	2.8	6.3	1.1	33
34	Fabricated metal products	10.8	.9	1.8	.8	4.7	1.9	.7	39
35	Industrial machinery and equipment	4.1	.1	1.0	.1	1.9	.3	.8	30
36	Electronic and other electric equipment	2.1	(D)	.3	(Z)	.2	(D)	.4	9
37	Transportation equipment	10.2	.2	(D)	(D)	(D)	(D)	1.3	2
38	Instruments and related products	2.8	.1	.4	(D)	(D)	.5	.1	16
Oregon									
		170.3	26.4	30.1	23.3	31.6	40.0	18.8	8
20	Food and kindred products	25.0	2.6	2.4	1.5	9.3	2.5	6.8	24
24	Lumber and wood products	20.2	2.7	4.1	3.5	5.0	2.6	2.3	9
26	Paper and allied products	48.8	9.7	7.9	10.3	4.1	15.0	1.8	11
27	Printing and publishing	1.7	.3	.4	.4	.2	.2	.2	25
28	Chemicals and allied products	4.5	.9	.8	.5	.9	.9	.5	24
30	Rubber and miscellaneous plastics products	1.8	(Z)	.2	(Z)	.3	.4	.9	55
32	Stone, clay, and glass products	2.0	.3	.5	.3	.3	.4	.3	33
33	Primary metal industries	29.2	3.1	6.0	3.1	6.3	9.8	1.0	20
34	Fabricated metal products	4.6	.7	1.7	.4	.6	.6	.6	45
35	Industrial machinery and equipment	7.9	1.1	1.9	1.1	1.8	.9	1.0	39
36	Electronic and other electric equipment	15.9	3.2	3.5	1.9	1.1	4.3	1.9	41
37	Transportation equipment	1.1	(Z)	.1	(Z)	.8	(Z)	.2	40
38	Instruments and related products	6.4	1.8	.5	.3	.4	2.2	1.2	46
Pennsylvania									
		890.9	106.1	145.3	109.1	233.5	216.1	80.7	5
20	Food and kindred products	59.0	4.8	7.0	4.8	13.3	9.3	19.8	12
22	Textile mill products	11.0	.2	.6	.2	1.0	1.3	7.7	36
24	Lumber and wood products	8.0	1.5	.9	1.0	2.5	1.4	.5	19
25	Furniture and fixtures	7.5	.6	1.3	2.3	1.4	.9	.9	24
26	Paper and allied products	91.0	9.4	15.6	6.6	22.1	23.0	14.3	14
27	Printing and publishing	14.5	2.0	2.3	3.3	3.1	2.1	1.7	12
28	Chemicals and allied products	160.7	18.3	32.2	15.8	34.5	51.8	8.1	12
29	Petroleum and coal products	77.9	9.0	15.7	(D)	(D)	23.6	2.6	2
30	Rubber and miscellaneous plastics products	14.0	1.3	1.1	.8	4.4	1.9	4.6	19
31	Leather and leather products	11.4	1.9	1.5	1.9	2.7	3.1	.4	45
32	Stone, clay, and glass products	47.4	6.6	7.4	9.4	10.4	11.9	1.7	8
33	Primary metal industries	233.6	34.0	29.2	37.4	77.7	51.1	4.2	11
34	Fabricated metal products	42.8	3.4	8.8	3.6	10.3	12.4	4.4	12
35	Industrial machinery and equipment	19.2	1.0	3.8	.8	8.5	2.4	2.8	15
36	Electronic and other electric equipment	32.3	7.7	6.4	2.4	8.2	5.1	2.5	8
37	Transportation equipment	25.7	2.3	6.4	2.1	5.2	8.6	1.2	15
38	Instruments and related products	17.1	1.6	3.2	1.2	6.7	3.1	1.3	13
39	Miscellaneous manufacturing industries	17.8	.8	1.8	(D)	(D)	3.1	2.2	7
Rhode Island									
		31.0	2.4	6.2	3.2	9.7	5.4	4.0	13
22	Textile mill products	2.4	.1	.4	.4	.2	.3	1.1	28
26	Paper and allied products	4.2	.4	.3	.5	2.9	.1	(Z)	68
28	Chemicals and allied products	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
32	Stone, clay, and glass products	(D)	(D)	(D)	(D)	(Z)	(D)	(D)	(X)
33	Primary metal industries	2.2	.2	.6	.2	.5	.7	.1	31

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992—Con.

(Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.)

SIC code	State and major group	Total PAOC	Kind of cost for all media					Standard error of estimate (PAOC) (percent)	
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous		Payments to government
Rhode Island—Con.									
34	Fabricated metal products.....	3.1	.3	.7	.4	.6	.6	.5	25
36	Electronic and other electric equipment.....	2.8	.1	1.0	.1	.7	.6	.4	63
39	Miscellaneous manufacturing industries.....	5.8	.6	1.2	(D)	(D)	1.0	1.0	18
South Carolina									
		360.1	79.6	63.6	46.0	67.1	75.8	28.0	7
20	Food and kindred products.....	6.9	.5	.6	.8	.9	.7	3.4	32
22	Textile mill products.....	36.1	2.5	5.7	5.3	6.5	6.2	9.9	11
24	Lumber and wood products.....	9.5	.9	.4	.5	.9	.5	.3	10
25	Furniture and fixtures.....	(D)	(D)	(D)	(D)	(D)	(D)	.1	(X)
26	Paper and allied products.....	64.4	14.5	9.3	19.2	7.6	13.2	.6	4
27	Printing and publishing.....	(D)	(D)	(D)	(D)	.1	(D)	(Z)	(X)
28	Chemicals and allied products.....	149.4	33.9	33.6	10.8	24.9	38.5	7.5	13
30	Rubber and miscellaneous plastics products.....	9.9	3.0	1.7	.6	2.3	1.4	.9	9
32	Stone, clay, and glass products.....	11.8	3.0	1.9	1.3	2.3	2.5	.7	4
33	Primary metal industries.....	19.4	2.8	2.9	2.1	8.0	3.2	.4	17
34	Fabricated metal products.....	6.4	.7	1.1	.5	1.2	2.2	.8	29
35	Industrial machinery and equipment.....	9.5	.4	1.5	.7	3.3	2.3	1.2	16
36	Electronic and other electric equipment.....	16.3	3.0	2.6	1.2	5.1	3.1	1.3	26
37	Transportation equipment.....	21.2	13.8	1.5	1.7	3.0	.8	.3	71
39	Miscellaneous manufacturing industries.....	1.3	.2	.1	.1	.2	.2	.4	42
South Dakota									
		16.5	2.1	2.0	1.7	3.6	3.8	3.3	33
20	Food and kindred products.....	6.7	.4	(D)	1.0	.6	(D)	(D)	45
33	Primary metal industries.....	1.4	.3	.1	(Z)	.3	.5	.2	81
34	Fabricated metal products.....	4.1	.1	1.1	.1	2.3	.3	.1	98
38	Instruments and related products.....	2.3	1.0	(D)	.2	.1	(D)	(D)	50
Tennessee									
		441.0	74.9	88.7	44.7	75.1	110.5	47.3	6
20	Food and kindred products.....	32.7	4.1	3.5	2.6	5.8	3.7	13.0	8
22	Textile mill products.....	10.8	.9	1.9	.9	2.3	1.4	3.4	8
24	Lumber and wood products.....	3.3	.3	.2	.4	1.8	.2	.5	41
25	Furniture and fixtures.....	3.8	.9	.4	.2	.7	.7	.7	29
26	Paper and allied products.....	41.7	6.0	6.3	3.7	5.8	11.4	8.6	14
27	Printing and publishing.....	14.5	(D)	1.8	(D)	.8	1.8	1.7	20
28	Chemicals and allied products.....	174.7	(D)	49.3	(D)	24.5	56.8	3.7	2
29	Petroleum and coal products.....	10.4	2.0	.7	1.0	3.3	2.9	.4	53
30	Rubber and miscellaneous plastics products.....	11.8	.9	1.2	1.0	4.4	1.2	3.2	16
32	Stone, clay, and glass products.....	14.3	3.9	2.3	2.9	2.6	2.2	.4	35
33	Primary metal industries.....	37.1	5.0	7.5	4.8	3.8	14.5	1.4	11
34	Fabricated metal products.....	15.3	2.5	3.5	1.5	2.7	3.1	2.0	28
35	Industrial machinery and equipment.....	11.4	1.0	2.3	.9	2.3	2.9	2.1	9
36	Electronic and other electric equipment.....	10.3	.8	2.9	1.6	1.2	2.1	1.9	16
37	Transportation equipment.....	43.5	15.1	4.2	3.9	11.7	5.0	3.6	44
39	Miscellaneous manufacturing industries.....	4.0	1.0	.4	1.0	.9	.3	.3	26
Texas									
		2 092.2	307.6	343.1	471.3	312.2	564.8	93.2	2
20	Food and kindred products.....	79.6	5.8	10.7	7.4	11.0	12.4	32.2	15
22	Textile mill products.....	1.0	.1	.1	.3	(Z)	.4	.2	34
24	Lumber and wood products.....	13.1	1.6	2.0	1.8	4.3	2.7	.7	31
25	Furniture and fixtures.....	2.3	.1	.7	.5	.3	.4	.3	36
26	Paper and allied products.....	68.1	12.5	8.1	9.2	14.4	16.1	7.9	14
27	Printing and publishing.....	9.8	.9	1.5	1.5	2.9	1.4	1.5	13
28	Chemicals and allied products.....	921.3	156.5	159.7	183.7	138.8	267.0	15.6	4
29	Petroleum and coal products.....	723.0	100.4	102.1	238.1	80.2	198.8	3.4	4
30	Rubber and miscellaneous plastics products.....	23.2	1.8	4.0	2.3	4.4	5.5	5.2	15
31	Leather and leather products.....	1.8	.1	.2	.1	.1	.5	.8	38
32	Stone, clay, and glass products.....	30.5	4.9	4.5	(D)	4.8	(D)	2.4	16
33	Primary metal industries.....	63.9	8.3	11.1	11.8	7.3	24.6	.8	5
34	Fabricated metal products.....	45.6	2.5	7.1	2.6	23.0	6.5	3.8	19
35	Industrial machinery and equipment.....	12.8	.8	2.6	.8	4.6	2.0	2.0	14
36	Electronic and other electric equipment.....	45.6	4.6	11.5	3.3	6.5	10.4	9.3	11
37	Transportation equipment.....	36.4	5.9	13.4	1.5	6.2	6.4	2.9	12
38	Instruments and related products.....	12.8	.6	3.3	(D)	3.1	(D)	3.7	12
39	Miscellaneous manufacturing industries.....	1.5	.1	.4	.1	.3	.4	.3	38
Utah									
		123.4	29.7	18.4	14.1	22.8	31.7	6.7	22
20	Food and kindred products.....	4.5	.4	.7	.4	.5	1.3	1.3	46
29	Petroleum and coal products.....	25.7	9.5	3.6	1.8	3.3	4.4	3.2	86
30	Rubber and miscellaneous plastics products.....	1.0	(Z)	.1	.1	.2	.1	.5	70
32	Stone, clay, and glass products.....	1.9	.5	(D)	.3	.2	(D)	.2	46
33	Primary metal industries.....	50.1	10.0	(D)	10.2	11.5	(D)	(Z)	23
36	Electronic and other electric equipment.....	4.8	.5	.8	.6	.2	2.5	.3	57
37	Transportation equipment.....	30.1	8.6	6.0	.3	4.7	9.9	.6	30
Vermont									
		17.5	1.3	3.4	.9	4.9	4.8	2.2	24
20	Food and kindred products.....	1.1	.1	.1	.1	.2	.1	.6	97
34	Fabricated metal products.....	1.7	.2	.8	.1	(D)	.1	(D)	21
36	Electronic and other electric equipment.....	6.7	.6	1.5	.3	(D)	1.1	(D)	17
37	Transportation equipment.....	5.1	.4	.6	.4	(Z)	2.8	.8	75
38	Instruments and related products.....	1.0	—	.3	—	.6	—	.1	72
Virginia									
		334.4	66.5	64.0	40.3	54.9	69.8	39.0	8
20	Food and kindred products.....	26.9	4.0	3.2	2.8	2.6	3.8	10.4	13
21	Tobacco products.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
22	Textile mill products.....	17.4	.9	2.2	2.1	1.8	1.6	8.8	13
24	Lumber and wood products.....	18.9	3.7	2.7	3.6	5.4	2.5	1.0	42
25	Furniture and fixtures.....	7.1	.9	1.0	2.6	.9	1.0	.7	34
26	Paper and allied products.....	67.4	21.5	7.5	(D)	8.1	21.0	(D)	12
27	Printing and publishing.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(X)
28	Chemicals and allied products.....	78.0	12.1	21.2	7.7	14.6	18.3	4.1	10
29	Petroleum and coal products.....	23.0	9.2	4.4	5.1	1.5	2.8	—	82
30	Rubber and miscellaneous plastics products.....	10.2	.7	1.3	1.4	2.9	2.3	1.7	27

Table 11b. Operating Costs by States and Major Groups for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States by major groups are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	State and major group	Total PAOC	Kind of cost for all media						Standard error of estimate (PAOC) (percent)
			Depreciation	Salaries and wages	Fuel and electricity	Contract work/ services	Materials, leasing, and miscellaneous	Payments to government	
Virginia—Con.									
32	Stone, clay, and glass products	6.1	.9	1.2	1.0	.7	1.8	.4	20
33	Primary metal industries	10.7	1.6	1.3	.9	2.4	3.7	.8	24
34	Fabricated metal products	6.0	.7	1.0	.2	2.2	1.1	.9	31
35	Industrial machinery and equipment	7.0	1.1	1.4	.2	2.6	.8	.9	22
36	Electronic and other electric equipment	12.3	.8	4.8	2.2	.8	2.7	1.0	5
37	Transportation equipment	22.9	4.7	6.1	.9	4.0	4.6	2.6	13
38	Instruments and related products	4.4	.9	.7	.3	.6	1.1	.7	30
Washington									
		366.2	75.0	64.2	38.1	64.5	88.6	37.8	6
20	Food and kindred products	27.1	2.6	2.6	1.2	6.3	2.2	12.2	15
22	Textile mill products	1.3	.4	.2	.1	.4	.1	.2	41
24	Lumber and wood products	15.8	2.3	3.5	1.2	2.8	3.3	2.6	19
25	Furniture and fixtures	1.4	—	—	—	—	.4	1.0	77
26	Paper and allied products	107.2	25.8	12.3	13.6	8.6	44.1	2.9	11
27	Printing and publishing	1.2	(Z)	.2	.1	.5	.2	.3	41
28	Chemicals and allied products	11.7	3.9	2.1	1.2	1.5	1.3	1.7	35
29	Petroleum and coal products	42.6	19.1	4.1	3.7	11.3	4.0	4.4	27
30	Rubber and miscellaneous plastics products	2.0	(Z)	.2	(Z)	.5	.4	.9	47
32	Stone, clay, and glass products	8.1	2.9	1.2	.5	1.0	.9	1.6	31
33	Primary metal industries	78.0	12.1	15.4	14.2	9.5	24.3	2.6	10
34	Fabricated metal products	4.6	.5	.5	.1	.8	2.0	.7	18
35	Industrial machinery and equipment	3.6	.2	.8	.2	1.1	.4	1.0	37
36	Electronic and other electric equipment	6.9	1.5	1.4	.8	.2	1.7	1.3	30
37	Transportation equipment	(D)	(D)	18.9	.9	(D)	(D)	8.0	(X)
38	Instruments and related products	2.1	.1	.7	.1	.3	.6	.3	22
39	Miscellaneous manufacturing industries	(D)	(D)	.2	.3	(D)	.3	.3	(X)
West Virginia									
		283.6	54.8	52.9	28.4	35.8	104.3	7.3	17
20	Food and kindred products	2.3	.6	.4	.3	.1	.7	.2	47
22	Textile mill products	1.2	—	—	—	.7	—	.4	91
24	Lumber and wood products	(D)	.4	(D)	.1	(D)	(D)	(D)	(X)
28	Chemicals and allied products	152.7	32.6	29.2	(D)	19.3	61.4	(D)	22
29	Petroleum and coal products	(D)	—	(D)	(D)	(D)	(D)	—	(X)
32	Stone, clay, and glass products	4.6	.8	.8	.7	.9	1.3	.1	18
33	Primary metal industries	108.7	19.3	18.6	19.3	11.9	38.6	1.0	29
34	Fabricated metal products	4.6	.6	.8	.7	1.3	.9	.2	35
35	Industrial machinery and equipment	2.7	.1	1.4	(Z)	.3	.2	.6	68
Wisconsin									
		394.1	61.6	53.4	45.0	59.0	106.1	69.0	10
20	Food and kindred products	47.7	3.7	3.7	2.9	8.8	3.8	24.8	14
24	Lumber and wood products	7.5	1.3	1.0	1.1	1.4	2.1	.6	16
25	Furniture and fixtures	4.0	.4	.4	1.3	1.1	.7	.2	38
26	Paper and allied products	185.7	38.0	26.5	19.5	12.5	68.5	20.6	20
27	Printing and publishing	11.8	2.8	.8	4.1	1.9	1.1	1.1	7
28	Chemicals and allied products	14.0	1.4	2.1	.4	4.8	3.6	1.7	18
30	Rubber and miscellaneous plastics products	6.9	.4	.8	.6	1.7	1.7	1.9	24
31	Leather and leather products	5.7	.4	(D)	.9	.2	(D)	1.3	26
32	Stone, clay, and glass products	7.0	1.0	.4	.6	.4	3.7	.9	42
33	Primary metal industries	29.4	4.4	3.3	6.5	5.8	6.8	2.6	7
34	Fabricated metal products	23.6	3.8	3.4	4.1	3.9	6.3	2.1	13
35	Industrial machinery and equipment	24.9	1.3	3.8	1.0	9.5	2.4	6.8	34
36	Electronic and other electric equipment	10.5	1.2	2.3	.7	2.7	1.7	1.9	15
37	Transportation equipment	8.5	1.0	2.3	.8	2.3	1.3	.8	23
38	Instruments and related products	4.3	.3	1.0	.3	1.0	.6	1.2	26
39	Miscellaneous manufacturing industries	1.7	.1	(D)	.1	.8	(D)	.3	23
Wyoming									
		28.7	6.0	3.6	2.6	12.2	4.0	.3	17
20	Food and kindred products	4.1	—	.9	.5	1.1	1.6	(Z)	75
28	Chemicals and allied products	(D)	(D)	1.2	(D)	(D)	(D)	—	(X)
29	Petroleum and coal products	4.6	.4	1.1	1.0	2.2	—	—	79
32	Stone, clay, and glass products	(D)	(D)	.1	(D)	(D)	(D)	.1	(X)

¹Excludes Major Group 23, Apparel and Other Textile Products.

Table 12a. Other Capital Expenditures by Major Groups for Kinds of Cost: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Total PACENM ¹	Total PACE	Nonmedia and other							Standard error of estimate (PACE) (percent)
				Total	Kind of cost						
					Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia	Not elsewhere classified (n.e.c.)	
	All industries²	8 393.0	7 866.9	526.1	192.5	262.9	11.5	.9	10.4	47.9	3
20	Food and kindred products	352.1	316.8	35.2	15.9	14.4	.7	—	.1	4.2	7
21	Tobacco products	15.1	14.5	.6	(D)	(D)	(Z)	—	—	—	15
22	Textile mill products	43.0	34.3	8.7	4.0	3.9	.2	(Z)	.5	.2	10
24	Lumber and wood products	102.6	94.5	8.1	1.9	5.1	.2	—	(Z)	.8	12
25	Furniture and fixtures	25.6	17.9	7.7	1.5	6.0	.2	—	(Z)	—	15
26	Paper and allied products	1 022.6	1 004.6	18.0	6.3	7.9	1.4	(Z)	(D)	(D)	6
27	Printing and publishing	47.9	41.8	6.1	4.5	1.1	.1	—	(Z)	.4	13
28	Chemicals and allied products	2 315.8	2 120.9	194.9	58.7	95.5	2.6	(D)	(D)	31.8	3
29	Petroleum and coal products	2 702.8	2 685.0	17.8	2.5	14.9	.1	—	—	.3	6
30	Rubber and miscellaneous plastics products	108.2	96.7	11.5	5.6	3.8	1.4	—	—	.7	27

Table 12a. Other Capital Expenditures by Major Groups for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Total PACENM ¹	Total PACE	Nonmedia and other						Standard error of estimate (PACE) (percent)	
				Total	Kind of cost						
					Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia		Not elsewhere classified (n.e.c.)
31	Leather and leather products	9.6	8.5	1.1	.6	.5	-	-	-	-	-
32	Stone, clay, and glass products	154.6	138.8	15.7	7.4	5.6	-	-	(Z)	-	43
33	Primary metal industries	560.6	525.7	34.9	4.7	25.8	.7	-	.1	2.6	15
34	Fabricated metal products	145.4	103.3	42.1	12.4	28.0	(Z)	.3	.4	3.0	5
35	Industrial machinery and equipment	174.2	150.3	23.9	9.5	13.1	(D)	(Z)	.7	1.0	7
36	Electronic and other electric equipment	149.8	126.6	23.2	6.5	16.2	(D)	-	.4	(D)	7
37	Transportation equipment	321.0	281.0	40.0	19.9	15.5	(D)	(D)	.3	.2	6
38	Instruments and related products	123.2	89.1	34.1	(D)	(D)	(D)	(D)	1.2	.3	10
39	Miscellaneous manufacturing industries	19.1	16.6	2.5	.6	1.3	(Z)	-	(Z)	.3	11
							(Z)	-	.2	.3	7

¹PACENM denotes pollution abatement capital expenditures including the nonmedia and other.

²Excludes Major Group 23, Apparel and Other Textile Products.

Table 12b. Other Capital Expenditures by States for Kinds of Cost: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PACE is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Total PACENM ¹	Total PACE	Nonmedia and other						Standard error of estimate (PACE) (percent)	
			Total	Kind of cost						
				Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia		Not elsewhere classified (n.e.c.)
United States ²	8 393.0	7 866.9	526.1	192.5	262.9	11.5	.9	10.4	47.9	3
Alabama	126.8	119.4	7.4	1.1	5.4	(Z)	-	-	1.0	7
Alaska	15.3	15.3	-	-	-	-	-	-	-	67
Arizona	32.0	30.8	1.2	(D)	(D)	-	-	-	-	14
Arkansas	81.9	75.6	6.4	(D)	5.8	.1	-	-	-	16
California	589.8	547.9	41.9	8.0	29.5	2.8	(D)	.3	(D)	8
Colorado	15.1	13.7	1.4	1.4	(Z)	-	-	-	-	53
Connecticut	34.9	29.3	5.5	1.2	4.1	-	-	-	(Z)	23
Delaware	61.1	59.8	1.3	.5	.9	.1	-	(Z)	.1	9
Florida	110.8	105.9	4.9	(D)	3.6	(Z)	(Z)	(Z)	(D)	16
Georgia	186.0	173.3	12.7	9.3	1.6	(D)	-	(Z)	(D)	5
Hawaii	2.8	2.8	(Z)	(Z)	-	-	-	-	(D)	16
Idaho	25.8	25.0	.8	.7	(D)	(Z)	-	-	(D)	53
Illinois	366.8	350.5	16.2	7.6	7.4	.3	(Z)	(Z)	.9	23
Indiana	363.4	330.9	32.5	24.0	7.7	.1	-	(Z)	.6	3
Iowa	52.2	46.9	5.3	1.7	2.9	(D)	-	(Z)	.1	6
Kansas	193.9	186.1	7.8	2.9	3.7	1.2	-	-	(D)	9
Kentucky	197.5	180.9	16.6	2.4	12.7	(Z)	-	-	(Z)	35
Louisiana	1 091.0	1 057.2	33.8	1.7	10.4	.1	-	(D)	1.2	6
Maine	67.2	62.2	5.0	1.3	(D)	(D)	(Z)	(D)	(D)	2
Maryland	45.2	38.1	7.1	1.8	.1	-	-	(D)	(D)	8
Massachusetts	65.0	59.5	5.5	3.0	2.3	.2	-	-	.1	11
Michigan	183.9	159.3	24.6	11.7	11.0	(Z)	-	-	.1	7
Minnesota	137.2	133.1	4.1	1.8	2.2	(Z)	(Z)	(Z)	1.6	7
Mississippi	115.8	112.8	3.0	.1	1.5	(D)	-	(D)	.1	7
Missouri	69.8	65.2	4.5	1.1	3.2	(Z)	-	(D)	(D)	6
Montana	7.6	7.1	.5	.5	(Z)	-	-	-	-	8
Nebraska	12.4	8.0	4.4	.1	.6	-	-	-	-	9
Nevada	5.4	5.3	.1	(Z)	(Z)	-	-	-	3.7	11
New Hampshire	17.6	(D)	(D)	.3	(D)	(Z)	-	-	(Z)	45
New Jersey	192.7	154.0	38.8	12.6	24.2	.2	(Z)	(D)	(Z)	(X)
New Mexico	44.3	44.3	-	-	-	-	-	-	-	12
New York	184.5	128.8	55.7	35.6	19.1	.3	(D)	-	(D)	70
North Carolina	281.0	259.8	21.2	5.3	9.5	.7	-	(D)	(D)	8
North Dakota	3.7	3.7	-	-	-	-	-	-	.1	4
Ohio	335.6	309.1	26.4	11.1	14.7	.1	-	.3	.3	32
Oklahoma	42.6	41.1	1.5	.8	.4	-	-	-	.2	5
Oregon	109.5	105.6	3.7	.7	2.1	.6	(D)	(D)	.1	15
Pennsylvania	305.7	272.4	33.4	16.1	16.2	.7	(Z)	.1	.3	14
Rhode Island	5.4	2.2	3.2	.3	2.9	(D)	-	-	.3	8
South Carolina	126.0	119.9	6.1	1.6	2.3	(D)	(D)	.5	.2	23
South Dakota	4.3	(D)	(D)	-	-	-	-	-	-	14
Tennessee	222.2	218.3	3.9	2.0	(D)	(Z)	-	-	-	(X)
Texas	1 491.8	1 448.0	45.8	9.3	32.2	(D)	(Z)	(Z)	(Z)	12
Utah	86.9	86.4	.5	(D)	(D)	(D)	(Z)	.3	(D)	8
Vermont	(D)	13.7	(D)	.1	(D)	-	-	-	-	49
Virginia	222.8	217.6	5.2	3.2	(D)	(D)	-	-	-	38
Washington	195.3	186.7	8.5	2.9	4.9	(Z)	-	(Z)	(D)	26
West Virginia	90.4	85.1	5.3	(D)	(D)	(D)	-	(Z)	(D)	14
Wisconsin	147.3	136.9	10.4	3.6	4.1	(D)	-	(Z)	(Z)	12
Wyoming	(D)	11.8	(D)	-	-	-	-	.7	.1	22
									(D)	29

¹PACENM denotes pollution abatement capital expenditures including the nonmedia and other.

²Excludes Major Group 23, Apparel and Other Textile Products.

Table 13a. Other Operating Costs by Major Groups for Kinds of Cost: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No major groups (two-digit industries) are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code	Major group	Total PAOCNM ¹	Total PAOC	Nonmedia and other						Standard error of estimate (PAOC) (percent)
				Kind of cost						
				Total	Site cleanup	Noise	Radiation	Multimedia	Not elsewhere classified (n.e.c.)	
	All industries²	19 228.0	17 466.4	1 761.6	1 573.5	7.8	13.0	89.8	77.4	2
20	Food and kindred products	1 340.1	1 312.0	28.1	23.9	.6	(D)	.7	(D)	3
21	Tobacco products	(D)	33.5	(D)	(D)	-	(Z)	(Z)	(D)	6
22	Textile mill products	264.2	256.2	7.9	6.3	.1	.1	.4	1.1	4
24	Lumber and wood products	268.0	243.0	25.0	23.1	.1	-	.8	1.0	5
25	Furniture and fixtures	126.0	118.5	7.5	7.2	(Z)	-	.1	.3	6
26	Paper and allied products	1 896.2	1 860.7	35.5	21.6	1.4	(Z)	3.7	8.8	4
27	Printing and publishing	260.0	239.0	21.0	10.8	(Z)	(Z)	9.5	.6	4
28	Chemicals and allied products	4 862.2	4 425.1	437.1	358.5	2.9	(D)	45.7	(D)	3
29	Petroleum and coal products	3 190.6	2 595.4	605.4	593.1	.6	-	8.8	2.9	4
30	Rubber and miscellaneous plastics products	403.9	379.6	24.3	20.9	.1	-	1.8	1.5	5
31	Leather and leather products	53.9	53.5	.4	.3	(Z)	-	-	(Z)	13
32	Stone, clay, and glass products	521.6	491.2	30.3	25.0	.2	.1	1.4	3.6	4
33	Primary metal industries	2 101.1	1 993.4	107.7	94.8	.6	.4	4.0	7.9	3
34	Fabricated metal products	869.3	761.2	108.0	102.3	.2	(D)	2.7	(D)	4
35	Industrial machinery and equipment	524.6	463.7	60.9	56.0	.1	-	1.6	3.2	4
36	Electronic and other electric equipment	722.1	657.1	65.0	58.4	.1	(D)	1.7	(D)	5
37	Transportation equipment	1 298.5	1 171.7	126.8	109.8	.6	(D)	5.1	(D)	4
38	Instruments and related products	393.3	331.9	61.5	57.2	.1	.2	1.4	2.6	4
39	Miscellaneous manufacturing industries	(D)	89.7	(D)	(D)	.1	-	.6	1.7	5

¹PAOCNM denotes pollution abatement operating costs including the nonmedia and other.
²Excludes Major Group 23, Apparel and Other Textile Products.

Table 13b. Other Operating Costs by States for Kinds of Cost: 1992

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Total PAOCNM ¹	Total PAOC	Nonmedia and other						Standard error of estimate (PAOC) (percent)
			Kind of cost						
			Total	Site cleanup	Noise	Radiation	Multimedia	Not elsewhere classified (n.e.c.)	
United States²	19 228.0	17 466.4	1 761.6	1 573.5	7.8	13.0	89.8	77.4	2
Alabama	401.6	380.0	21.6	20.3	.1	-	.1	1.1	6
Alaska	31.5	31.4	.1	.1	-	-	-	-	21
Arizona	143.4	129.4	14.0	13.3	-	(D)	.4	(D)	10
Arkansas	224.6	208.1	16.5	15.7	(D)	(Z)	(D)	.5	11
California	1 637.6	1 492.6	145.0	131.3	(D)	(D)	4.6	2.5	4
Colorado	95.5	83.5	12.0	11.5	(Z)	(D)	-	-	12
Connecticut	197.6	168.5	29.1	26.9	(D)	-	1.2	(D)	5
Delaware	153.3	145.5	7.9	7.8	(Z)	-	-	-	15
District of Columbia	13.3	1.4	11.9	(D)	-	-	(D)	-	40
Florida	336.7	304.3	32.4	25.4	.4	-	2.5	4.2	5
Georgia	396.8	375.7	21.1	13.5	.1	-	.3	7.2	6
Hawaii	16.2	12.8	3.4	3.1	.1	-	.2	(Z)	33
Idaho	68.0	60.4	7.7	(D)	-	-	(D)	(Z)	13
Illinois	932.0	896.1	35.9	27.7	.1	-	5.3	2.8	6
Indiana	752.4	706.6	45.7	31.9	(D)	(Z)	6.1	(D)	3
Iowa	178.9	166.9	12.0	11.1	-	-	(D)	(D)	7
Kansas	113.1	107.3	5.7	4.7	(Z)	-	.7	(D)	11
Kentucky	339.1	324.8	14.3	11.8	(Z)	(D)	.5	(D)	5
Louisiana	969.2	920.0	49.3	41.1	-	(Z)	5.3	2.8	5
Maine	129.7	123.5	6.2	3.2	1.3	(D)	1.4	(D)	10
Maryland	210.0	205.6	4.4	3.2	(Z)	(D)	.2	.9	6
Massachusetts	261.0	246.2	14.8	12.6	.5	(Z)	1.3	.3	7
Michigan	796.1	763.0	33.1	31.3	.1	(Z)	1.1	.3	3
Minnesota	261.4	254.5	7.0	6.5	(Z)	(Z)	.2	.3	6
Mississippi	271.9	269.1	2.8	2.5	(Z)	-	.2	.1	7
Missouri	299.1	287.6	11.6	10.4	(Z)	-	.4	.8	4
Montana	(D)	25.5	(D)	(D)	-	-	-	(Z)	12
Nebraska	62.7	60.0	2.7	2.5	(Z)	(Z)	(Z)	.2	12
Nevada	12.7	11.0	1.8	(D)	-	-	(D)	-	20
New Hampshire	47.4	44.1	3.4	2.8	-	-	(Z)	.5	15
New Jersey	784.8	673.8	111.0	96.0	.9	(D)	9.7	(D)	13
New Mexico	65.2	63.4	1.8	(D)	(Z)	-	(D)	-	42
New York	718.5	650.6	67.9	62.5	(Z)	(D)	2.2	(D)	5
North Carolina	580.8	554.4	26.5	22.2	(Z)	-	1.7	2.5	3
North Dakota	(D)	19.3	(D)	.3	-	-	(D)	-	52
Ohio	1 170.0	1 030.8	139.2	129.4	.1	.7	.7	8.2	4
Oklahoma	122.6	117.0	5.7	4.3	(Z)	-	.2	1.1	9
Oregon	182.9	170.3	12.6	9.3	(Z)	(D)	1.4	(D)	8
Pennsylvania	952.1	890.9	61.3	55.5	.3	(D)	3.6	(D)	5
Rhode Island	33.7	31.0	2.8	.3	(Z)	-	(Z)	2.4	13
South Carolina	379.2	360.1	19.1	12.8	(Z)	(D)	1.5	(D)	7
South Dakota	16.6	16.5	(Z)	(Z)	-	-	-	-	33
Tennessee	474.7	441.0	33.7	30.5	.1	(Z)	1.0	2.0	6
Texas	2 700.2	2 092.2	608.0	588.9	(D)	.1	12.0	(D)	2
Utah	129.7	123.4	6.3	3.6	-	-	(D)	(D)	22

Table 13b. Other Operating Costs by States for Kinds of Cost: 1992—Con.

[Million dollars. Totals may not agree with detail because of independent rounding. Statistics in this table cover manufacturing establishments with 20 or more employees. No States are shown where PAOC is less than \$1.0 million. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

State	Total PAOCNM ¹	Total PAOC	Nonmedia and other							Standard error of estimate (PAOC) (percent)
			Kind of cost							
			Total	Site cleanup	Noise	Radiation	Multimedia	Not elsewhere classified (n.e.c.)		
Vermont	19.8	17.5	2.2	2.0	-	-	-	-	.2	24
Virginia	361.9	334.4	27.4	21.3	(D)	-	-	-	(D)	8
Washington	394.3	368.2	26.1	20.1	(Z)	(Z)	4.4	-	(D)	6
West Virginia	306.6	283.6	23.1	17.3	(Z)	-	-	-	5.8	17
Wisconsin	404.3	394.1	10.2	8.7	(Z)	-	-	5.5	.2	10
Wyoming	28.8	28.7	.1	.1	-	-	-	.9	.5	17

¹PAOCNM denotes pollution abatement operating costs including the nonmedia and other.
²Excludes Major Group 23, Apparel and Other Textile Products.

Table 14. Summary New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for All Media: 1988 to 1992

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code ¹	Industry	New plant and equipment	Pollution abatement capital expenditures (PACE)						
			Total PACENM ²	Media				Nonmedia and other	
				Total	Air	Water	Solid/contained waste		
10,12,13,14	Mining	1992..	8 883.7	405.1	317.6	105.9	144.7	67.0	
		1991..	10 022.5	(NA)	273.6	117.5	119.6	36.5	87.5
		1990..	9 880.3	(NA)	251.7	78.9	138.2	34.6	(NA)
		1989..	9 207.9	(NA)	199.9	39.9	112.9	47.2	(NA)
		1988..	8 282.5	(NA)	144.4	42.2	84.4	17.8	(NA)
19	Petroleum and coal products	1992..	29 585.8	4 367.3	3 873.5	1 932.9	1 380.5	560.1	
		1991..	35 590.6	(NA)	3 559.6	1 744.2	1 503.3	312.2	493.8
		1990..	34 787.3	(NA)	3 221.3	1 265.6	1 643.6	312.2	(NA)
		1989..	30 081.0	(NA)	2 275.9	771.5	1 174.5	329.9	(NA)
		1988..	26 031.6	(NA)	1 904.8	705.1	998.9	200.6	(NA)
91,493	Electric utilities ³	1992..	42 657.6	3 037.9	2 886.7	1 948.3	567.0	371.4	
		1991..	38 616.7	(NA)	1 943.2	1 054.5	573.0	315.7	151.2
		1990..	39 267.5	(NA)	2 111.1	1 111.3	673.0	325.9	(NA)
		1989..	40 319.1	(NA)	1 819.1	1 074.6	481.9	262.5	(NA)
		1988..	36 685.0	(NA)	2 091.3	1 215.4	525.6	350.3	(NA)

¹For further description of SIC codes covered in this survey, see introductory text.
²PACENM denotes pollution abatement capital expenditures including the nonmedia and other.
³Does not include Rural Electric Administration utilities.

Table 15a. New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for the Media Air: 1992

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols.]

SIC code ¹	Industry	Total PACE	Total	Air					
				Type of pollutant abated				Abatement technique	
				Hazardous	Nonhazardous			End of line	Production process enhancements
					Total	Particulates, etc. ²	Other		
10,12,13,14	Mining	317.6	105.9	3.1	102.8	100.0	2.8	71.9	34.0
	Petroleum and coal products	3 873.5	1 932.9	574.1	1 358.8	1 156.7	202.1	999.7	933.2
91,493	Electric utilities ³	2 886.7	1 948.3	59.4	1 888.9	1 861.1	27.8	1 398.8	549.5

¹For further description of SIC codes covered in this survey, see introductory text.
²Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons/volatile organic compounds, and lead.
³Does not include Rural Electric Administration utilities.

Table 15b. **New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for the Media Water: 1992**

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code ¹	Industry	Total PACE	Water				
			Total	Type of pollutant abated		Abatement technique	
				Hazardous	Nonhazardous	End of line	Production process enhancements
10,12,13,14	Mining	317.6	144.7	76.1	68.6	127.9	16.8
29	Petroleum and coal products	2 873.5	1 380.5	624.0	756.5	1 018.3	362.2
491,493	Electric utilities ²	2 886.7	567.0	68.9	498.1	519.3	47.7

¹For further description of SIC codes covered in this survey, see introductory text.²Does not include Rural Electric Administration utilities.Table 15c. **New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for the Media Solid/Contained Waste: 1992**

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code ¹	Industry	Total PACE	Solid/contained waste				
			Total	Type of pollutant abated		Abatement technique	
				Hazardous	Nonhazardous	End of line	Production process enhancements
10,12,13,14	Mining	317.6	67.0	18.5	48.5	43.8	23.2
29	Petroleum and coal products	2 873.5	560.1	60.3	499.8	276.2	283.9
491,493	Electric utilities ²	2 886.7	371.4	67.0	304.4	332.0	39.4

¹For further description of SIC codes covered in this survey, see introductory text.²Does not include Rural Electric Administration utilities.Table 15d. **New Capital Expenditures by Companies in Mining, Petroleum, and Electric Utilities for Kinds of Cost: 1992**

[Million dollars. See introductory text for a description of survey coverage and for the meaning of abbreviations and symbols]

SIC code ¹	Industry	Total PACENM ²	Total PACE	Nonmedia and other							
				Total	Kind of cost						Not elsewhere classified (n.e.c.)
					Underground storage tanks	Site cleanup	Noise	Radiation	Multimedia		
10,12,13,14	Mining	405.1	317.6	87.5	11.8	74.9	.4	-	.4	-	
29	Petroleum and coal products	4 367.3	2 873.5	493.8	150.2	293.3	6.4	-	8.6	35.3	
491,493	Electric utilities ³	3 037.9	2 886.7	151.2	46.8	58.8	20.3	4.2	6.6	14.5	

¹For further description of SIC codes covered in this survey, see introductory text.²PACENM denotes pollution abatement capital expenditures including the nonmedia and other.³Does not include Rural Electric Administration utilities.

Table 16. Selected Industrial Air Pollution Control Equipment: 1988 to 1992

[Million dollars]

Type of equipment	Value			Shipments by end use													
	New orders	Total shipments	Back-log of orders	Pulp and paper mill operations	Chemical and fertilizer production	Petroleum refining	Cement manufacturing	Foundries	Iron and steel mills	Primary metals smelting plants	Grain milling and handling	Coal mining and cleaning	Steam electric utility power plants	Steam industrial power plants	Municipal waste combusters	Other end use industries ¹	
Total air pollution control equipment ²	1992..	781.2	713.4	754.1	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
	1991..	846.6	817.8	884.3	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
	1990..	952.2	825.3	821.1	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
	1989..	826.6	710.9	558.5	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
	1988..	632.8	550.0	475.3	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
Particulates emission collectors	1992..	422.1	463.3	255.1	35.7	58.6	32.3	14.1	4.2	5.5	6.9	5.3	4.9	96.2	18.0	2.5	179.1
	1991..	494.0	496.0	294.4	47.4	64.4	41.2	15.0	4.1	6.6	7.3	5.6	3.4	72.4	21.0	5.2	202.6
	1990..	531.0	446.5	264.7	53.8	42.5	18.2	12.3	3.7	6.3	8.7	5.9	4.3	65.7	47.9	(D)	169.5
	1989..	426.0	394.0	221.7	61.2	42.1	10.2	10.5	3.3	6.9	3.4	4.2	4.9	47.9	38.7	-	160.8
	1988..	361.6	362.6	200.9	49.2	23.7	8.2	4.2	6.1	3.1	6.6	6.6	5.1	112.3	22.8	(4)	112.7
Gaseous emission control devices	1992..	292.4	196.9	422.8	(D)	9.3	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	48.8
	1991..	225.2	226.9	327.3	(D)	6.3	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	55.2
	1990..	280.8	224.8	299.3	(D)	3.3	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	65.9	(D)	76.6
	1989..	295.1	227.7	304.0	(D)	16.2	5.6	-	(D)	(D)	(D)	(D)	(D)	97.2	39.7	(D)	61.6
	1988..	218.1	145.0	250.7	(D)	9.8	4.5	-	(D)	(D)	(D)	(D)	(D)	37.0	24.9	(4)	64.6

Source: Current Industrial Reports, Selected Industrial Air Pollution Control Equipment (MA-35J), 1988 to 1992.

¹Includes municipal waste combusters shipments prior to 1989.²Includes other types of industrial air pollution control equipment not shown separately.³No longer collected.⁴Not collected separately prior to 1989.

Appendix

Report Forms and Respondent Instructions

The following pages present samples of the questionnaires used for the 1992 Pollution Abatement Costs and Expenditures Survey.

Form MA-200, Survey of Pollution Abatement Costs and Expenditures.....	A-2
Form PA-2, Plant and Equipment Survey Supplement for Pollution Abatement.....	A-22

MA-200
(12-92)

OMB No. 0607-0176:
Approval Expires 09/30/95



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

OFFICE OF THE DIRECTOR

FROM THE DIRECTOR
BUREAU OF THE CENSUS

Industrial firms are devoting a significant share of their resources for pollution abatement. Consequently, it is important that accurate and timely statistics be available on a broad national basis so that business, Government, and the general public can better evaluate the economic implications of such costs. The annual "Survey of Pollution Abatement Costs and Expenditures" provides this information.

We require this report only for plant(s) for which you received an addressed form. Please read the general instructions carefully, particularly if more than one establishment of your company used the same pollution abatement facilities. If actual records are not available, carefully prepared estimates are acceptable.

The law (Title 13, United States Code, Sections 182, 224, and 225) requires response to this inquiry. By Section 9 of the same law, your report to the Census Bureau is confidential. Only sworn Census Bureau employees will see the information reported and will use it only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Your cooperation in returning the completed form by May 1 will help to make possible the timely release of the survey results. If you need additional time to complete the report or need additional forms, call (812) 288-3331. If you have any questions, call the Special Surveys Branch of our Industry Division on (301) 763-1755. Your Census Bureau appreciates your help.

1992 SURVEY OF POLLUTION ABATEMENT COSTS AND EXPENDITURES

PLEASE COMPLETE THIS WORKBOOK. COPY THE ANSWERS TO THE ATTACHED ANSWER SHEET IN THE BACK OF THE BOOKLET. RETURN ONLY THE ANSWER SHEET.

SUBJECT and PURPOSE

This survey collects new capital expenditures and annual operating expenses for pollution abatement in manufacturing. It also covers cost offsets for reclaiming valuable materials or energy as a result of pollution abatement efforts.

Pollution abatement is for the purpose of reducing or eliminating unwanted emissions or wastes that are created by the production process and harmful to the environment or the removal of pollution created by prior years production. For this survey, only expenditures with the primary purpose of protecting the environment are included. This survey does not collect expenditures intended to meet worker safety and health requirements. It also does not include expenditures that abate pollution when the primary purpose is to increase profits or cut costs, and the environmental protection is a side benefit.

The ***results of the survey*** are mainly used by the Bureau of Economic Analysis to incorporate pollution abatement expenditures into the national income and product accounts and by the Environmental Protection Agency to monitor the economic impact of environmental programs. Other data users include: other Federal agencies, state and local governments, trade associations, manufacturers, marketing and research companies, universities, financial institutions, and environmental reporters.

AUTHORITY and CONFIDENTIALITY

Response to this inquiry is ***required by law*** (Title 13, U.S. Code). By Section 9, of Title 13, U.S. Code, your report to the Census Bureau is ***confidential***. It may be seen only by sworn Census Bureau employees and may be used only for statistical purposes. The data can not be used for regulation or enforcement. Copies of your report retained in your files are ***immune from legal process***.

HOW TO REPORT

This report is required only for the establishment located at the address named in the address box on the answer sheet. ***DO NOT COMBINE*** with other establishments in your company even though operations may jointly use the same pollution abatement facilities. When this occurs, apportion the costs and expenditures according to the rate of pollution abatement equipment utilization or the relative amounts of pollutants produced.

All respondents should complete Item 1, ***Operational Status***. Review Section B on page 6, ***Screening for Pollution Abatement Costs and Expenditures***. Complete Item 2, ***Total Pollution Abatement Costs and Expenditures***, and follow Item 2 instructions.

This booklet contains general definitions and specific instructions for each item. Each item's instructions include a guide listing examples of expenditures. In most cases these lists will provide sufficient information for completing this survey form.

For further details or definitions, see the following acts:

Clean Air Act and Amendments
Clean Water Act and Amendments
Resource Conservation and Recovery Act and Amendments
Pollution Prevention Act of 1990
Comprehensive Environmental Responses, Compensation, and Liability Act
Superfund Amendments and Reauthorization Act
Noise Pollution Control Act

For copies of these laws write:

U.S. House of Representatives
Document Room
Ford Building, Room B18
Washington, DC 20515-6622

This survey is directed to manufacturing operations. The information requested supplements the data collected in the annual survey of manufactures. If you think that you are **not a manufacturing operation**, call our analysts at (301) 763-1755 for instructions.

If you have **questions** or **suggestions** regarding this report, please call the Special Surveys Branch on (301) 763-1755. Please refer to the Census Bureau file number (the 11-digit number above the plant name in the address box) when calling or in written correspondence.

DUE DATE

Detach the answer sheet and return it by **May 1** in the enclosed prepaid envelope to:

Bureau of the Census
1201 East 10th Street
Jeffersonville, IN 47132-0001

DO NOT RETURN THIS WORKBOOK.

If you need **additional time** to complete the report, or if you need a **duplicate workbook** or answer sheet, please call our Jeffersonville office at **(812) 288-3331**.

RESPONSE TIME

Public reporting burden for this collection of information is estimated to vary from 45 minutes to 35 hours per form (with an average of 2-1/2 hours), including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send **comments** regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Associate Director for Management Services, Paperwork Reduction Project (0607-0176), Room 2027, FB 3, Bureau of the Census, Washington, DC 20233-0001; and to the Office of Management and Budget, Paperwork Reduction Project (0607-0176), Washington, DC 20503.

ELECTRONIC REPORTING

For **information** concerning the possible use of reporting formats other than the form provided, such as computer tape or printouts, contact our Special Surveys Branch on (301) 763-1755.

PUBLICATION OF RESULTS OF THIS SURVEY

Industry estimates are published in the Current Industrial Report, Pollution Abatement Costs and Expenditures, MA-200. Companies reporting in this survey may obtain a copy of this publication without charge by marking the check box on the answer sheet for a copy of the **MA-200 publication**. You also may request a copy without charge by writing to the Bureau of the Census, Industry Division, Federal Office Building 4, Room 2105, Washington, DC 20233-0001.

TABLE OF CONTENTS

Section	Page
A. Operational Status	
ITEM 1 – Operational Status	5
B. Screening for Pollution Abatement Costs and Expenditures	
ITEM 2 – Total Pollution Abatement Costs and Expenditures	6
C. General Definitions	
General Instructions	7
Media	7
Techniques for Pollution Abatement	7
Hazardous Pollutants	7
D. Annual Operating Expenses and Cost Offsets for Pollution Abatement	
Guide for ITEMS 3-5	8
ITEM 3 – Operating Expenses for Pollution Abatement Except Payments to Governments	9
ITEM 4 – Operating Expenses for Hazardous Pollutants	9
ITEM 5 – Payments to Governments for Pollutant Removal	9
Guide for ITEM 6	10
ITEM 6 – Pollution Abatement Cost Offsets	10
E. New Capital Expenditures for Abatement of Pollutants	
Guide for ITEMS 7-9	11
ITEM 7 – New Capital Expenditures for Pollution Abatement by Media	12
ITEM 8 – Type of Air Pollutants	13
ITEM 9 – New Capital Expenditures for Underground Storage Tanks	13
F. Costs and Expenditures for Site Cleanup	
Guide for ITEM 10	14
ITEM 10 – Costs and Expenditures for Site Cleanup	14
G. Costs and Expenditures for Abatement of OTHER Pollutants	
Guide for ITEMS 11-12	15
ITEM 11 – Costs and Expenditures for OTHER Pollutants	15
ITEM 12 – Type of OTHER Pollutants	15
H. Certification	
ITEM 13 – Certification	15

SECTION A - OPERATIONAL STATUS

ITEM 1 - OPERATIONAL STATUS

Check *one box* which best describes this establishment on December 31 *of the survey year*.

IN OPERATION If you owned the plant for the entire year, **CONTINUE WITH SECTION B.**
If you owned the plant (possessed the book records) for less than the entire survey year, indicate the month purchased:

Month

--	--

 and **CONTINUE WITH SECTION B.**

TEMPORARILY IDLE If the plant was idle for part or all of the survey year, **CONTINUE WITH SECTION B.**

PERMANENTLY CEASED OPERATIONS, NOT YET SOLD OR DISMANTLED **CONTINUE WITH SECTION B.**

DISMANTLED Check this box on the answer sheet. **COMPLETE ITEM 13** of the answer sheet and return it.

SOLD Complete the following information on the answer sheet. If the book records were relinquished in the sale, **COMPLETE ITEM 13** and return it. If you retain the book records, **CONTINUE WITH SECTION B.**

Date sold: Month

--	--

 Year

--	--	--	--

Sold to:

Name _____

Street _____

City _____

State _____ ZIP _____

Employer Identification

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Failure to return the answer sheet will require the issuance of letters and duplicate forms. Save tax dollars by sending your response in on time.

SECTION B - SCREENING FOR POLLUTION ABATEMENT COSTS AND EXPENDITURES

This survey collects the following types of expenditures for pollution abatement and environmental protection:

1. Capital expenditures for pollution abatement structures or equipment added to the production process, **and** for structures and equipment with built-in pollution abatement features to reduce generation of air pollutants, water pollutants, or solid/contained wastes.
2. Operating expenses for operating pollution abatement equipment; for removal or disposal of pollutants including **trash removal or sewage service**; for testing and monitoring of emissions or wastes; for pollution abatement audits, reports, studies, or operating procedures development.
3. Costs and expenditures for cleaning up contaminants from the site.
4. Costs and expenditures for other environmental protection such as expenditures to reduce noise pollution, radiation, or multimedia expenses.

Note: Some common pollution abatement expenses are for the removal of garbage, paints, discarded cans, used oils, and inks resulting from the production process.

ITEM 2 - TOTAL POLLUTION ABATEMENT COSTS AND EXPENDITURES

Check **all** appropriate boxes to indicate the types of pollution abatement expenditures at this location and proceed as instructed.

- No** operating expenses or capital expenditures for pollution abatement
- Costs either included in rent or not charged. All pollution abatement expenses were included in rent, taxes, lease agreement, **or** waste removal at no charge (such as a scavenger service)
- Pollution abatement operating expenses and capital expenditures **each** were less than \$500 but greater than zero

Check this box on the answer sheet. Complete **ITEM 13** of the answer sheet and return it.

- Annual pollution abatement operating expenses exceeding \$500 Complete **Section D**
- Capital expenditures exceeding \$500 for pollution abatement structures or equipment, or for structures or equipment with built-in pollution abatement features Complete **Section E**
- Costs and expenditures exceeding \$500 for site cleanup Complete **Section F**
- OTHER** environmental protection costs and expenditures exceeding \$500 Complete **Section G**

Read **Section C**, General Definitions, first.

SECTION C - GENERAL DEFINITIONS

GENERAL INSTRUCTIONS

Answer all questions. If you cannot answer a question from your plant records, please estimate the answer carefully. In some cases, identification of pollution abatement expenditures may require the joint efforts of your establishment's financial and engineering staff. Report all value figures in thousands of dollars. Report data for the calendar year. If calendar year book figures are not available except at considerable cost, reasonable estimates are acceptable. If your fiscal year ends between October 31 and February 28, fiscal year figures are acceptable.

MEDIA

Air pollutants are harmful or objectionable airborne substances. They include particulates, (dust, fly ash, smoke), sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons, volatile organic compounds, lead, hazardous air pollutants, and other air pollutants.

Water pollutants are harmful or objectionable waterborne substances. They include conventional pollutants, nonconventional pollutants, toxic metals/toxic inorganic compounds, and toxic organic compounds.

Solid/contained waste is harmful or objectionable solids or contained liquids. It includes garbage, sewage sludge, dredged spoils, incinerator residue, wrecked or discarded equipment, and hazardous waste. Include solid/contained waste produced as a result of air and water pollution abatement.

TECHNIQUES FOR POLLUTION ABATEMENT

Treatment refers to the wide variety of techniques used on wastes to cool, detoxify, decompose, and separate-to-store or ameliorate.

Collection/Disposal refers to the collection, storage, transport, processing, and disposal of solid waste by incineration, sanitary or other landfill methods, and disposing in authorized areas.

Waste minimization is any practice which prevents, reduces, eliminates, or recovers and reuses emissions or wastes so as to avoid treatment or collection/disposal. Waste minimization includes source reduction and recycling.

Source reduction is any practice which prevents or reduces the amount of emissions or waste generated for recycling, treatment, or collection/disposal. This can be accomplished by equipment/technology changes, process procedure modifications, product reformulation/redesign, raw material substitutions (including improved catalysts and reuse of waste or water), and improvements in housekeeping, maintenance, training, or inventory control.

Recycling is a method of waste management in which waste is recovered and reused for its material or energy values. The waste can be reused in the production process or sold to an outside party as material. We are including the burning of flammable wastes for energy recovery as recycling. Closed loop recovery systems are recycling.

HAZARDOUS POLLUTANTS

Hazardous air pollutants are those regulated under Section 112 of the Clean Air Act. Examples include arsenic, benzene, beryllium, mercury, and vinyl chloride.

Hazardous water pollutants are toxic metals/toxic inorganic compounds, and toxic organic compounds as listed by the Clean Water Act. Examples of toxic metals and inorganic compounds include antimony, arsenic, asbestos, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, thallium, and zinc. Examples of toxic organic compounds are benzene, chloroethane, toluene, and zylene.

Hazardous solid/contained wastes are listed under Subtitle D of the Resource Conservation and Recovery Act.

SECTION D – ANNUAL OPERATING EXPENSES AND COST OFFSETS FOR POLLUTION ABATEMENT

GUIDE FOR ITEMS 3-5

The following list describes the types of expenses to report in this section. The list is intended to be a guide and is not complete.

Include operating expenses for:

- private contractor collection/disposal of waste created by the production process
- sewage or solid/contained waste collection/disposal paid to Federal, State, or local governments (Report only in Item 5.)
- handling, treatment, or disposal of wastes created by the production process
- testing and monitoring of emissions or wastes
- operating and maintaining pollution abatement equipment
- fuel and power costs for operating pollution abatement equipment
- incremental costs for consumption of environmentally preferable materials and fuels
- conducting environmental studies for development or expansion
- parts for pollution abatement equipment replacement and repair
- leasing of pollution abatement equipment
- compliance and environmental auditing
- salaries and wages for time spent completing environmental reporting requirements
- developing pollution abatement operating procedures

Exclude operating expenses for:

- collection/disposal of office and cafeteria trash (If you cannot separate from industrial, report the entire amount.)
- health, safety, environmental aesthetics, or employee comfort (OSHA)
- research and development services
- manufacture of pollution abatement equipment
- taxes, fines, permits, legal fees, superfund taxes and contributions
- interest for financing pollution abatement capital expenditures

SECTION E - NEW CAPITAL EXPENDITURES FOR ABATEMENT OF POLLUTANTS

GUIDE FOR ITEMS 7-9

New capital expenditures for pollution abatement are all outlays during the year for pollution abatement structures and equipment that are chargeable to fixed asset accounts, and for which depreciation or amortization reserves (accounts) are maintained. Report only those capital outlays actually made during the year, not the final value of equipment put in place or the building completed during the year. If leasing arrangements meet Financial Accounting Standards Board criteria, please report the original cost or market value of the structure or equipment as a new capital expenditure. **Do not report total capital expenditures.** Total capital expenditures are reported on your annual survey of manufacturers (ASM). Report only the portions of capital expenditures that are for pollution abatement as defined by this survey.

Pollution abatement structures and equipment are of two types: **end-of-line** and **production process**.

End-of-line structures or equipment reduce pollutants after their generation. These are separately identifiable (retrofit) treatment facilities that are installed exclusively for the purpose of abating pollutant emissions or wastes. Report the entire end-of-line expenditure.

Production process enhancements (or replacements, additions, or alterations) reduce or eliminate the generation of pollutants by converting processes and equipment to enable waste minimization (source reduction or recycling), or to enable additional uses of water prior to discharge. Report the pollution abatement portion of the installed cost of enhancement projects intended for environmental protection. Estimate the pollution abatement portion as the extra cost of pollution abatement features in structures and equipment (i.e., your actual spending less what you would have spent without the pollution abatement features built-in.)

Special instructions: Estimating the pollution abatement portion (distinct from production efficiency, energy conservation, employee safety, etc.) of a process enhancement may not be feasible in all cases. For these cases, report in this manner: Do **not** include any of the project cost **unless** the primary purpose is environmental protection. If the primary purpose of the project is environmental protection, report the whole production process enhancement project expenditure. Indicate in the remarks section that this is the case. **Caution:** A project with the primary purpose of improving production efficiency may include pollution abatement features added to meet legal requirements. Since the primary purpose of such a project is still not environmental protection, do not report **any** of the production process enhancement.

Examples of Pollution Abatement Capital

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line Structures and Equipment	dust collectors, scrubbers, precipitators	trickling filters, settling ponds, clarifiers, spill containment dikes	cardboard balers, compactors, bins, improved containments for waste
Production Process Enhancements	conversion to substitute fuels that generate fewer pollutants	conversion to a closed or partially closed loop system for pollution abatement	conversion to enable recycling scrap materials, converting piping for greater pollution prevention

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The following list further describes the capital expenditures to report in this section. The list is intended to be a guide and is not complete.

Include new capital expenditures for:

- end-of-line structures or equipment: new, replacement, and/or expansion, intended for environmental protection
- the pollution abatement **portion of** production process enhancements intended for environmental protection
- construction in progress intended for environmental protection
- waste storage facilities (Report tanks in Item 9.)

Exclude new capital expenditures for:

- pollution abatement end-of-line structures or equipment, or production process enhancements intended to maximize efficiency or profit
- research and development
- health, safety, environmental aesthetics or employee comfort (OSHA)
- recycling equipment if your primary product is recycling, that is, you are a recycling plant
- motor vehicles with pollution abatement devices
- production of pollution abatement equipment that is your primary product, that is, you are a pollution abatement equipment manufacturer
- projects undertaken exclusively for the purpose of insuring adequate water supply for production

ITEM 7 - NEW CAPITAL EXPENDITURES FOR POLLUTION ABATEMENT BY MEDIA

For each media, report your pollution abatement end-of-line structures and equipment expenditures; the pollution abatement **portion** of your spending for production process enhancements; and the total of your end-of-line and your production process responses. Report the percentage of each total by media, except air, which is directed to hazardous pollutants. (Item 8 asks for the percentage for air.)

Exclude tanks from ITEM 7. Report capital expenditures for installation of safeguards or replacement of inferior underground storage tank systems in ITEM 9. Capital expenditures for other tank systems are not collected on this survey.

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line	\$, ,000	\$, ,000	\$, ,000
Production Process (pollution abatement portion)	\$, ,000	\$, ,000	\$, ,000
Total by Media	\$, ,000	\$, ,000	\$, ,000
Percent Hazardous	See Item 8.	.0%	.0%

▶ ITEM 8 – TYPE OF AIR POLLUTANTS

Report the percentage of new capital expenditures for air pollution abatement from Item 7 by the type of pollutant the structure or equipment will abate. For example, if expenditures are intended to abate hazardous air pollutants and sulfur oxides equally, report 50% on the hazardous air pollutant line and 50% on the particulates, sulfur oxides etc. line.

a. Hazardous air pollutants	.0%	
b. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons – volatile organic compounds, and lead	.0%	
c. Other nonhazardous air pollutants	.0%	
d. Total	100	.0%

▶ ITEM 9 – NEW CAPITAL EXPENDITURES FOR UNDERGROUND STORAGE TANKS

Report new capital expenditures for ***underground storage tanks***.

Include expenditures for:

- installation of safeguards for existing underground tanks
- replacement of inferior or leaking underground storage tanks
- removal of inferior or leaking underground storage tanks

New capital expenditures for underground storage tanks	\$, .000
--	-----------

SECTION F – COSTS AND EXPENDITURES FOR SITE CLEANUP

GUIDE FOR ITEM 10

Site cleanup is the abatement of pollutant contamination from leaks, spills, past production processes, or at a former disposal site (Superfund). The pollution must be on the site of the establishment named on this survey form or from your plant's production process. Site cleanup is not reported by media. The following list describes the types of expenditures to report in this section. The list is intended to be a guide and is not complete.

Include costs and expenditures for:

- privately-paid site cleanup
- testing and monitoring
- compliance and environmental auditing
- environmental studies
- groundwater contamination cleanup
- reclamation for pollution abatement

Exclude costs and expenditures for:

- government-paid site cleanup
- taxes, fines, permits, legal fees such as for settling liability and other issues, superfund taxes and contributions
- interest for financing pollution abatement capital expenditures
- reclamation to enhance property values or for aesthetics

 **ITEM 10 – COSTS AND EXPENDITURES FOR SITE CLEANUP**

Annual operating expenses for site cleanup	\$, ,000
New capital expenditures for site cleanup	\$, ,000

SECTION G - COSTS AND EXPENDITURES FOR ABATEMENT OF OTHER POLLUTANTS

GUIDE FOR ITEMS 11-12

OTHER pollution abatement costs and expenditures cover pollution emissions or wastes that can not be reasonably allocated by media. Media are defined in Section C on page 7.

Include costs and expenditures for:

- noise pollution control that would otherwise disturb the surrounding community
- protection against radiation that would otherwise reach the surrounding environment
- multimedia expenses, that is, expenses that can not be allocated to one particular media (such as administrative costs for an on-site environmental office or lab)

▶ **ITEM 11 - COST AND EXPENDITURES FOR OTHER POLLUTANTS**

Annual operating expenses for OTHER pollution abatement	\$, ,000
New capital expenditures for OTHER pollution abatement	\$, ,000

▶ **ITEM 12 - TYPE OF OTHER POLLUTANTS**

Check the type(s) of pollutants abated by the expenditures reported in ITEM 11.

- Noise pollution that would otherwise disturb the surrounding community
- Radiation that would otherwise reach the surrounding environment
- Multimedia expenses
- Other pollutants within the scope of this survey but not reported elsewhere on this form.
Please specify in remarks.

SECTION H - CERTIFICATION

▶ **ITEM 13 - CERTIFICATION** - Certify the answer sheet. For this workbook, record the name of the person who can clarify the data reported in this year's survey.

Name of person to contact regarding this report (<i>Print or type</i>)	Telephone		
	Area code	Number	Extension

ITEM 2 - TOTAL POLLUTION ABATEMENT EXPENDITURES

- 211 **No** operating expenses or capital expenditures for pollution abatement Complete **ITEM 13** and return the answer sheet.
- 212 Costs either included in rent or not charged. All pollution abatement expenses were included in rent, taxes, lease agreement, **or** waste removal at no charge (such as a scavenger service)
- 213 Pollution abatement operating expenses and capital expenditures **each** were less than \$500 but greater than zero
- 214 Annual pollution abatement operating expenses exceeding \$500 Complete **Section D**
- 215 Capital expenditures exceeding \$500 for pollution abatement structures or equipment, or for structures or equipment with built-in pollution abatement features Complete **Section E**
- 216 Costs and expenditures exceeding \$500 for site cleanup Complete **Section F**
- 217 OTHER environmental protection costs and expenditures exceeding \$500 Complete **Section G**

ITEM 3 - OPERATING EXPENSES FOR POLLUTION ABATEMENT EXCEPT PAYMENTS TO GOVERNMENT

Expense Category	Media		
	Air	Water	Solid/Contained Waste
a. Depreciation	301 \$, , ,000 \$	311 \$, , ,000 \$	321 \$, , ,000 \$
b. Salaries & Wages	302 \$, , ,000 \$	312 \$, , ,000 \$	322 \$, , ,000 \$
c. Fuel & Electricity	303 \$, , ,000 \$	313 \$, , ,000 \$	323 \$, , ,000 \$
d. Contract Work	304 \$, , ,000 \$	314 \$, , ,000 \$	324 \$, , ,000 \$
e. Materials, Leasing, Miscellaneous	305 \$, , ,000 \$	315 \$, , ,000 \$	325 \$, , ,000 \$
f. Total	306 \$, , ,000 \$	316 \$, , ,000 \$	326 \$, , ,000 \$

ITEM 4 - OPERATING EXPENSES FOR HAZARDOUS POLLUTANTS

Percent Hazardous	Media		
	Air	Water	Solid/Contained Waste
401 .0%	411 .0%	421 .0%	421 .0%

ITEM 5 -- PAYMENTS TO GOVERNMENTS FOR POLLUTION REMOVAL

Payments to government for:		
a. Sewage Services		501
	\$, , ,000
b. Solid/Contained Waste Collection/Disposal		502
	\$, , ,000
c. Total		503
	\$, , ,000

ITEM 6 -- POLLUTION ABATEMENT COST OFFSETS

Air (a)	Water (b)	Solid/Contained Waste (c)	Total
601	611	621	631
\$, , ,000	\$, , ,000	\$, , ,000	\$, , ,000

ITEM 7 -- NEW CAPITAL EXPENDITURES FOR POLLUTION ABATEMENT BY MEDIA

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line	701	711	721
	\$, , ,000	\$, , ,000	\$, , ,000
Production Process (pollution abatement portion)	702	712	722
	\$, , ,000	\$, , ,000	\$, , ,000
Total by Media	703	713	723
Percent Hazardous	See Item 8.	714	724
		.0%	.0%

ITEM 8 -- TYPE OF AIR POLLUTANTS

a. Hazardous air pollutants	801	.0%
b. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons -- volatile organic compounds, and lead	802	.0%
c. Other nonhazardous air pollutants	803	.0%
d. Total	100	.0%

ITEM 9 - NEW CAPITAL EXPENDITURES FOR UNDERGROUND STORAGE TANKS

New capital expenditures for underground storage tanks	901	\$,000
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ITEM 10 - COSTS AND EXPENDITURES FOR SITE CLEANUP

Annual operating expenses for site cleanup	101	\$,000
New capital expenditures for site cleanup	102	\$,000

ITEM 11 - COSTS AND EXPENDITURES FOR ABATEMENT OF OTHER POLLUTANTS

Annual operating costs for OTHER pollution abatement	111	\$,000
New capital expenditures for OTHER pollution abatement	112	\$,000

ITEM 12 - TYPE OF OTHER POLLUTANTS

- 121 Noise pollution that would otherwise disturb the surrounding community
- 122 Radiation that would otherwise reach the surrounding environment
- 123 Multimedia expenses
- 124 Other pollutants within the scope of this survey but not reported elsewhere on this form.
Please specify in remarks.

ITEM 13 - CERTIFICATION -

This report is substantially accurate and has been prepared in accordance with instructions.

Remarks

Name of person to contact regarding this report (<i>Print or type</i>)	132 Telephone		
	Area code	Number	Extension
Signature of authorized person	Month	Day	Year

Check here, if you would like a copy of the MA-200 publication without charge.

RETURN THIS ANSWER SHEET TO OUR JEFFERSONVILLE OFFICE.

THE WORKBOOK IS FOR YOUR RECORDS.

THANK-YOU FOR YOUR COOPERATION.

THIS IS A WORKBOOK WITH A DETACHABLE ANSWER SHEET FOR THE SURVEY OF POLLUTION ABATEMENT COSTS AND EXPENDITURES.

PLEASE TRANSFER ALL ANSWERS TO THE ANSWER SHEET.

**COMPLETE ITEM 13, CERTIFICATION,
AND RETURN ONLY THE ANSWER SHEET
IN THE ENCLOSED ENVELOPE
TO OUR JEFFERSONVILLE OFFICE.**

THIS WORKBOOK IS FOR YOUR RECORDS.

THANK-YOU FOR YOUR COOPERATION.

PLEASE TURN THIS BOOKLET OVER AND BEGIN THE SURVEY WITH THE LETTER.



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001
OFFICE OF THE DIRECTOR

PA-2
(1-93)

OMB No. 0607-0176:
Approval Expires 09/30/95

FROM THE DIRECTOR
BUREAU OF THE CENSUS

Industrial firms are devoting a significant share of their resources for pollution abatement. Consequently, it is important that accurate and timely statistics be available on a broad national basis so that business, Government, and the general public can better evaluate the economic implications of such costs. The annual "Plant and Equipment Survey Supplement for Pollution Abatement" provides this information.

This report covers the operations of the company identified in the address box. Please read the general instructions carefully. If actual records are not available, carefully prepared estimates are acceptable.

The law (Title 13, United States Code, Sections 182, 224, and 225) requires response to this inquiry. By Section 9 of the same law, your report to the Census Bureau is confidential. Only sworn Census Bureau employees will see the information reported and will use it only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Your cooperation in returning the completed form by May 1 will help to make possible the timely release of the survey results. If you need additional time to complete the report, require additional forms, or if you have any questions, call the Special Surveys Branch of our Industry Division on (301) 763-1755. Your Census Bureau appreciates your help.

**1992
PLANT AND EQUIPMENT SURVEY
SUPPLEMENT FOR POLLUTION ABATEMENT**

PLEASE COMPLETE THIS WORKBOOK. COPY THE
ANSWERS TO THE ATTACHED ANSWER SHEET IN THE BACK
OF THE BOOKLET. RETURN ONLY THE ANSWER SHEET.

SUBJECT and PURPOSE

This survey collects total new capital expenditures and pollution abatement new capital expenditures.

Pollution abatement is for the purpose of reducing or eliminating unwanted emissions or wastes that are harmful to the environment or the removal of pollution created by prior years activities. For this survey, only expenditures which have the primary purpose of protecting the environment are included. This survey does not collect expenditures intended to meet worker safety and health requirements. It also does not include expenditures that abate pollution when the primary purpose is to increase profits or cut costs, and the environmental protection is a side benefit.

The **results of the survey** are mainly used by the Bureau of Economic Analysis in the environmental accounts that assess the effect of pollution control programs on investment and overall economic performance. Other data users include: other Federal agencies, state and local governments, trade associations, manufacturers, marketing and research companies, universities, financial institutions, and environmental reporters.

AUTHORITY and CONFIDENTIALITY

Response to this inquiry is **required by law** (Title 13, U.S. Code). By Section 9 of Title 13, U.S. Code, your report to the Census Bureau is **confidential**. It may be seen only by sworn Census Bureau employees and may be used only for statistical purposes. The data can not be used for regulation or enforcement. Copies of your report retained in your files are **immune from legal process**.

HOW TO REPORT

Report for all operations, including active and inactive sites, of the company named in the address box on the answer sheet. All respondents should complete Item 1, **Operational Status**. Review Section B on page 7, **Screening for Pollution Abatement New Capital Expenditures**. Complete Item 2, **Total New Capital Expenditures and Pollution Abatement New Capital Expenditures**, and follow Item 2 instructions.

This booklet contains general definitions and specific instructions for each item. Each item's instructions include a guide listing examples of expenditures. In most cases these lists will provide sufficient information for completing this survey form.

For further details or definitions, see the following acts:

Clean Air Act and Amendments
Clean Water Act and Amendments
Resource Conservation and Recovery Act and Amendments
Pollution Prevention Act of 1990
Comprehensive Environmental Responses, Compensation, and Liability Act
Superfund Amendments and Reauthorization Act
Noise Pollution Control Act

For copies of these laws write:

U.S. House of Representatives
Document Room
Ford Building, Room B18
Washington, DC 20515-6622

If you have **questions** or **suggestions** regarding this report, please call the Special Surveys Branch on (301) 763-1755.

Please refer to the identification number (the 10-digit number above the company name in the address box) in calls or correspondence.

DUE DATE

Detach the answer sheet and return it by **May 1** in the enclosed prepaid envelope to:

Bureau of the Census
Industry Division
FOB 4 Room 2105
Washington, DC 20233-0001

DO NOT RETURN THIS WORKBOOK.

If you need **additional time** to complete the report, or if you need a **duplicate workbook** or answer sheet, please call our Special Surveys Branch on (301) 763-1755.

RESPONSE TIME

Public reporting burden for this collection of information is estimated to vary from 45 minutes to 60 hours per form (with an average of 2-1/2 hours), including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Associate Director for Management Services, Paperwork Reduction Project (0607-0176), Room 2027, FB 3, Bureau of the Census, Washington, DC 20233-0001; and to the Office of Management and Budget, Paperwork Reduction Project (0607-0176), Washington, DC 20503.

ELECTRONIC REPORTING

For **information** concerning the possible use of reporting formats other than the form provided, such as computer tape or printouts, contact our Special Surveys Branch on (301) 763-1755.

PUBLICATION OF RESULTS OF THIS SURVEY

Industry estimates will be published in the Current Industrial Report, Pollution Abatement Costs and Expenditures, MA-200. Companies reporting in this survey may obtain a copy of this publication without charge by marking the check box on the answer sheet for a copy of the **MA-200 publication** without charge. You also may request a copy by writing to the Bureau of the Census, Industry Division, Federal Office Building 4, Room 2105, Washington, DC 20233-0001.

TABLE OF CONTENTS

Section	Page
A. Operational Status	
ITEM 1 – Operational Status	5
B. Screening for Pollution Abatement New Capital Expenditures	
ITEM 2 – Total New Capital Expenditures and Pollution Abatement New Capital Expenditures	6
C. General Definitions	
General Instructions	7
Media	7
Techniques for Pollution Abatement	7
Hazardous Pollutants	7
D. Total New Capital Expenditures	
Guide for ITEM 3	8
ITEM 3 – Total New Capital Expenditures	8
E. New Capital Expenditures for Abatement of Pollutants	
Guide for ITEMS 4-6	9
ITEM 4 – New Capital Expenditures for Pollution Abatement by Media	10
ITEM 5 – Type of Air Pollutants	11
ITEM 6 – New Capital Expenditures for Underground Storage Tanks	11
F. New Capital Expenditures for Site Cleanup	
Guide for ITEM 7	11
ITEM 7 – New Capital Expenditures for Site Cleanup	11
G. New Capital Expenditures for Abatement of OTHER Pollutants	
Guide for ITEMS 8-9	12
ITEM 8 – New Capital Expenditures for OTHER Pollutants	12
ITEM 9 – Type of OTHER Pollutants	12
H. Certification	
ITEM 10 – Certification	12

SECTION A - OPERATIONAL STATUS

ITEM 1 - OPERATIONAL STATUS

Check the **one box** that best describes the company as a whole on December 31 of the survey year.

In operation on December 31 of the survey year.

No longer in operation on December 31 of the survey year.
Give date operations ceased:

Month

Year

Change of ownership. Give date of change and ownership information:

Month

Year

New Owner _____

Street _____

City _____

State _____ ZIP Code _____

CONTINUE WITH SECTION B.

*Failure to return the answer sheet will require the issuance of letters and duplicate forms.
Save tax dollars by sending your response in on time.*

SECTION A - OPERATIONAL STATUS

ITEM 1 - OPERATIONAL STATUS

Check the **one box** that best describes the company as a whole on December 31 of the survey year.

In operation on December 31 of the survey year.

No longer in operation on December 31 of the survey year.
Give date operations ceased:

Month |

Year | | |

Change of ownership. Give date of change and ownership information:

Month |

Year | | |

New Owner _____

Street _____

City _____

State _____ ZIP Code _____

CONTINUE WITH SECTION B.

Failure to return the answer sheet will require the issuance of letters and duplicate forms. Save tax dollars by sending your response in on time.

SECTION B - SCREENING FOR POLLUTION ABATEMENT NEW CAPITAL EXPENDITURES

This survey collects total new capital expenditures and the following types of new capital expenditures for pollution abatement and environmental protection:

- 1. New capital expenditures for pollution abatement structures or equipment added to the production process, **and** structures and equipment with built-in pollution abatement features to reduce generation of air pollutants, water pollutants, or solid/contained waste.
- 2. New capital expenditures for cleaning up contaminants from the site.
- 3. New capital expenditures for other environmental protection such as expenditures to reduce noise pollution, radiation, or multimedia expenditures.

ITEM 2 - TOTAL NEW CAPITAL EXPENDITURES AND POLLUTION ABATEMENT NEW CAPITAL EXPENDITURES

Check **all** appropriate boxes to indicate new capital expenditures and the types of pollution abatement new capital expenditures for this company and proceed as instructed.

Total new capital expenditures for all purposes **Complete Section D**

No pollution abatement new capital expenditures

Pollution abatement new capital expenditures less than \$500 but greater than zero

Check this box on the answer sheet. Complete **ITEM 10** of the answer sheet and return it.

Capital expenditures exceeding \$500 for pollution abatement structures or equipment, or for structures or equipment with built-in pollution abatement features . . . **Complete Section E**

New capital expenditures exceeding \$500 for site cleanup

OTHER environmental protection new capital expenditures exceeding \$500 **Complete Section G**

Read **Section C**, **General Definitions**, first.

Complete Section F

SECTION C - GENERAL DEFINITIONS

GENERAL INSTRUCTIONS

Answer all questions. If you can not answer a question from your company records, please estimate the answer carefully. In some cases, identification of pollution abatement new capital expenditures may require the joint efforts of your company's financial and engineering staff. Report all value figures in thousands of dollars. If the answer is zero, please report zero. Report data for the calendar year. If calendar year book figures are not available except at considerable cost, reasonable estimates are acceptable. If your fiscal year ends between October 31 and February 28, fiscal year figures are acceptable.

MEDIA

Air pollutants are harmful or objectionable airborne substances. They include particulates, (dust, fly ash, smoke), sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons, volatile organic compounds, lead, hazardous air pollutants, and other air pollutants.

Water pollutants are harmful or objectionable waterborne substances. They include conventional pollutants, nonconventional pollutants, toxic metals/toxic inorganic compounds, and toxic organic compounds.

Solid/contained waste is harmful or objectionable solids or contained liquids. It includes garbage, sewage sludge, dredged spoils, incinerator residue, wrecked or discarded equipment, and hazardous waste. Include solid/contained waste produced as a result of air and water pollution abatement.

TECHNIQUES FOR POLLUTION ABATEMENT

Treatment refers to the wide variety of techniques used on wastes to cool, detoxify, decompose, and separate-to-store or ameliorate.

Collection/Disposal refers to the collection, storage, transport, processing, and disposal of solid waste by incineration, sanitary or other landfill methods, and disposing in authorized areas.

Waste minimization is any practice which prevents, reduces, eliminates, or recovers and reuses emissions or wastes so as to avoid treatment or collection/disposal. Waste minimization includes source reduction and recycling.

Source reduction is any practice which prevents or reduces the amount of emissions or waste generated for recycling, treatment, or collection/disposal. This can be accomplished by equipment/technology changes, process procedure modifications, product reformulation/redesign, raw material substitutions (including improved catalysts and reuse of waste or water), and improvements in housekeeping, maintenance, training, or inventory control.

Recycling is a method of waste management in which waste is recovered and reused for its material or energy values. The waste can be reused in the production process or sold to an outside party as material. We are including the burning of flammable wastes for energy recovery as recycling. Closed loop recovery systems are recycling.

HAZARDOUS POLLUTANTS

Hazardous air pollutants are those regulated under Section 112 of the Clean Air Act. Examples include arsenic, benzene, beryllium, mercury, and vinyl chloride.

Hazardous water pollutants are toxic metals/toxic inorganic compounds, and toxic organic compounds as listed by the Clean Water Act. Examples of toxic metals and inorganic compounds include antimony, arsenic, asbestos, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, thallium, and zinc. Examples of toxic organic compounds are benzene, chlorethane, toluene, and zylene.

Hazardous solid/contained wastes are listed under Subtitle D of the Resource Conservation and Recovery Act.

SECTION C - GENERAL DEFINITIONS**GENERAL INSTRUCTIONS**

Answer all questions. If you can not answer a question from your company records, please estimate the answer carefully. In some cases, identification of pollution abatement new capital expenditures may require the joint efforts of your company's financial and engineering staff. Report all value figures in thousands of dollars. If the answer is zero, please report zero. Report data for the calendar year. If calendar year book figures are not available except at considerable cost, reasonable estimates are acceptable. If your fiscal year ends between October 31 and February 28, fiscal year figures are acceptable.

MEDIA

Air pollutants are harmful or objectionable airborne substances. They include particulates, (dust, fly ash, smoke), sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons, volatile organic compounds, lead, hazardous air pollutants, and other air pollutants.

Water pollutants are harmful or objectionable waterborne substances. They include conventional pollutants, nonconventional pollutants, toxic metals/toxic inorganic compounds, and toxic organic compounds.

Solid/contained waste is harmful or objectionable solids or contained liquids. It includes garbage, sewage sludge, dredged spoils, incinerator residue, wrecked or discarded equipment, and hazardous waste. Include solid/contained waste produced as a result of air and water pollution abatement.

TECHNIQUES FOR POLLUTION ABATEMENT

Treatment refers to the wide variety of techniques used on wastes to cool, detoxify, decompose, and separate-to-store or ameliorate.

Collection/Disposal refers to the collection, storage, transport, processing, and disposal of solid waste by incineration, sanitary or other landfill methods, and disposing in authorized areas.

Waste minimization is any practice which prevents, reduces, eliminates, or recovers and reuses emissions or wastes so as to avoid treatment or collection/disposal. Waste minimization includes source reduction and recycling.

Source reduction is any practice which prevents or reduces the amount of emissions or waste generated for recycling, treatment, or collection/disposal. This can be accomplished by equipment/technology changes, process procedure modifications, product reformulation/redesign, raw material substitutions (including improved catalysts and reuse of waste or water), and improvements in housekeeping, maintenance, training, or inventory control.

Recycling is a method of waste management in which waste is recovered and reused for its material or energy values. The waste can be reused in the production process or sold to an outside party as material. We are including the burning of flammable wastes for energy recovery as recycling. Closed loop recovery systems are recycling.

HAZARDOUS POLLUTANTS

Hazardous air pollutants are those regulated under Section 112 of the Clean Air Act. Examples include arsenic, benzene, beryllium, mercury, and vinyl chloride.

Hazardous water pollutants are toxic metals/toxic inorganic compounds, and toxic organic compounds as listed by the Clean Water Act. Examples of toxic metals and inorganic compounds include antimony, arsenic, asbestos, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, thallium, and zinc. Examples of toxic organic compounds are benzene, chloroethane, toluene, and zylene.

Hazardous solid/contained wastes are listed under Subtitle D of the Resource Conservation and Recovery Act.

SECTION D - TOTAL NEW CAPITAL EXPENDITURES**GUIDE FOR ITEM 3**

New capital expenditures are all outlays during the year for new structures and equipment that are chargeable to fixed asset accounts, and for which depreciation or amortization reserves (accounts) are maintained. Purchases of used structures and equipment are not new capital expenditures. Report only those capital outlays actually made during the year, not the final value of equipment put in place or the building completed during the year.

ITEM 3 - TOTAL NEW CAPITAL EXPENDITURES

This number is available on your **PE-4** or **PE-5** Plant and Equipment Survey.

Total new capital expenditures	\$,	,	,000
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SECTION E - NEW CAPITAL EXPENDITURES FOR ABATEMENT OF POLLUTANTS

GUIDE FOR ITEMS 4-6

Pollution abatement new capital expenditures for structures and equipment are of two types: **end-of-line** and **production process**.

End-of-line structures or equipment reduce pollutants after their generation. These are separately identifiable (retrofit) treatment facilities that are installed exclusively for the purpose of abating pollutant emissions or wastes. Report the entire end-of-line expenditure.

Production process enhancements (or replacements, additions, or alterations) reduce or eliminate the generation of pollutants by converting processes and equipment to enable waste minimization (source reduction or recycling), or to enable additional uses of water prior to discharge. Report the pollution abatement portion of the installed cost of enhancement projects intended for environmental protection. Estimate the pollution abatement portion as the extra cost of pollution abatement features in structures and equipment (i.e., your actual spending less what you would have spent without the pollution abatement features built-in.)

Special instructions: Estimating the pollution abatement portion (distinct from production efficiency, energy conservation, employee safety, etc.) of a process enhancement may not be feasible in all cases. For these cases, report in this manner: Do **not** include any of the project cost **unless** the primary purpose is environmental protection. If the primary purpose of the project is environmental protection, report the whole production process enhancement project expenditure. Indicate in the remarks section that this is the case. **Caution:** A project with the primary purpose of improving production efficiency may include pollution abatement features added to meet legal requirements. Since the primary purpose of such a project is still not environmental protection, do not report **any** of the production process enhancement.

Examples of Pollution Abatement Capital

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line Structures and Equipment	dust collectors, scrubbers, precipitators	trickling filters, settling ponds, clarifiers, spill containment dikes	cardboard balers, compactors, bins, improved containments for waste
Production Process Enhancements	conversion to substitute fuels that generate fewer pollutants	conversion to a closed or partially closed loop system for pollution abatement	conversion to enable recycling scrap materials, converting piping for greater pollution prevention

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SECTION E - NEW CAPITAL EXPENDITURES FOR ABATEMENT OF POLLUTANTS

GUIDE FOR ITEMS 4-6

Pollution abatement new capital expenditures for structures and equipment are of two types: **end-of-line** and **production process**.

End-of-line structures or equipment reduce pollutants after their generation. These are separately identifiable (retrofit) treatment facilities that are installed exclusively for the purpose of abating pollutant emissions or wastes. Report the entire end-of-line expenditure.

Production process enhancements (or replacements, additions, or alterations) reduce or eliminate the generation of pollutants by converting processes and equipment to enable waste minimization (source reduction or recycling), or to enable additional uses of water prior to discharge. Report the pollution abatement portion of the installed cost of enhancement projects intended for environmental protection. Estimate the pollution abatement portion as the extra cost of pollution abatement features in structures and equipment (i.e., your actual spending less what you would have spent without the pollution abatement features built-in.)

Special instructions: Estimating the pollution abatement portion (distinct from production efficiency, energy conservation, employee safety, etc.) of a process enhancement may not be feasible in all cases. For these cases, report in this manner: Do **not** include any of the project cost **unless** the primary purpose is environmental protection. If the primary purpose of the project is environmental protection, report the whole production process enhancement project expenditure. Indicate in the remarks section that this is the case. **Caution:** A project with the primary purpose of improving production efficiency may include pollution abatement features added to meet legal requirements. Since the primary purpose of such a project is still not environmental protection, do not report **any** of the production process enhancement.

Examples of Pollution Abatement Capital

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line Structures and Equipment	dust collectors, scrubbers, precipitators	trickling filters, settling ponds, clarifiers, spill containment dikes	cardboard balers, compactors, bins, improved containments for waste
Production Process Enhancements	conversion to substitute fuels that generate fewer pollutants	conversion to a closed or partially closed loop system for pollution abatement	conversion to enable recycling scrap materials, converting piping for greater pollution prevention

The following list further describes the capital expenditures to report in this section. The list is intended to be a guide and is not complete.

Include new capital expenditures for:

- end-of-line structures or equipment: new, replacement, and/or expansion, intended for environmental protection
- the pollution abatement **portion** of production process enhancements intended for environmental protection
- construction in progress intended for environmental protection
- waste storage facilities (Report tanks in Item 6.)

Exclude new capital expenditures for:

- pollution abatement end-of-line structures or equipment, or production process enhancements intended to maximize efficiency or profit
- research and development
- health, safety, environmental aesthetics or employee comfort (OSHA)
- recycling equipment if a plant's primary product is recycling, that is, it is a recycling plant
- motor vehicles with pollution abatement devices
- production of pollution abatement equipment that is a plant's primary product, that is, it is a pollution abatement equipment manufacturer
- projects undertaken exclusively for the purpose of insuring adequate water supply for production

ITEM 4 - NEW CAPITAL EXPENDITURES FOR POLLUTION ABATEMENT BY MEDIA

For each media, report your pollution abatement end-of-line structures and equipment expenditures; the pollution abatement **portion** of your spending for production process enhancements; and the total of your end-of-line and your production process enhancements. Report the percentage of each total by media, except air, which is directed to hazardous pollutants. (Item 5 asks for this percentage for air.)

Exclude tanks from ITEM 4. Report capital expenditures for installation of safeguards or replacement of inferior storage tank systems in ITEM 6. Capital expenditures for other tank systems are not collected on this survey.

Percent hazardous - Report the percent of total expenditures for water and solid/contained waste which is for the abatement of hazardous pollutants. For example, if the expenses for the abatement of pollutants are intended to abate only hazardous pollutants, report 100% in the appropriate category below. Report 0 when no hazardous pollutants are abated. Estimate the percentage of expenditures directed to hazardous pollutants when both hazardous and nonhazardous pollutants are abated. See Section C on page 7 for hazardous pollutants definitions.

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line	\$, , ,000 \$, , ,000 \$, , ,000 \$
Production Process (pollution abatement portion)	\$, , ,000 \$, , ,000 \$, , ,000 \$
Total by Media	\$, , ,000 \$, , ,000 \$, , ,000 \$
Percent Hazardous	See Item 5.	.0%	.0%

▶ **ITEM 5 – TYPE OF AIR POLLUTANTS**

Report the percentage of new capital expenditures for air pollution abatement from Item 4 by the type of pollutant the structure or equipment will abate. For example, if expenditures are intended to abate hazardous air pollutants and sulfur oxides equally, report 50% on the hazardous air pollutant line and 50% on the particulates, sulfur oxides etc. line.

a. Hazardous air pollutants		.0%
b. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons – volatile organic compounds, and lead		.0%
c. Other nonhazardous air pollutants		.0%
d. Total	100	.0%

▶ **ITEM 6 – NEW CAPITAL EXPENDITURES FOR UNDERGROUND STORAGE TANKS**

Report new capital expenditures for *underground storage tanks*.

Include expenditures for:

- installation of safeguards for existing underground tanks
- replacement of inferior or leaking underground storage tanks
- removal of inferior or leaking underground storage tanks

New capital expenditures for underground storage tanks	\$,	,000
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SECTION F – NEW CAPITAL EXPENDITURES FOR SITE CLEANUP

GUIDE FOR ITEM 7

Site cleanup is the abatement of pollutant contamination from leaks, spills, past production processes, or at a former disposal site (Superfund). The pollution must be on the property of the company named on this survey form or from your company's production process. Site cleanup is not reported by media. The following list describes the types of expenditures to report in this section. The list is intended to be a guide and is not complete.

Include site cleanup new capital expenditures for:

- privately paid-for site cleanup capital
- testing and monitoring equipment
- reclamation for pollution abatement
- groundwater contamination cleanup capital

Exclude site cleanup new capital expenditures for:

- government paid-for site cleanup
- interest for financing pollution abatement capital expenditures
- reclamation to enhance property values or for aesthetics

▶ **ITEM 7 – NEW CAPITAL EXPENDITURES FOR SITE CLEANUP**

New capital expenditures for site cleanup	\$,	,000
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SECTION G - NEW CAPITAL EXPENDITURES FOR ABATEMENT OF OTHER POLLUTANTS

GUIDE FOR ITEMS 8-9

OTHER pollution abatement new capital expenditures cover pollution emissions or wastes that can not be reasonably allocated by media. Media are defined in Section C on page 7.

Include new capital expenditures for:

- noise pollution control that would otherwise disturb the surrounding community
- protection against radiation that would otherwise reach the surrounding environment
- multimedia expenditures, that is, expenses that can not be allocated to one particular media (such as capital expenditures for an environmental protection office or lab)

▶ **ITEM 8 - NEW CAPITAL EXPENDITURES FOR OTHER POLLUTANTS**

New capital expenditures for OTHER pollution abatement	\$,000
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▶ **ITEM 9 - TYPE OF OTHER POLLUTANTS**

Check the type(s) of pollutants abated by the new capital expenditures reported in ITEM 8.

- Noise pollution that would otherwise disturb the surrounding community
- Radiation that would otherwise reach the surrounding environment
- Multimedia expenditures
- Other pollutants within the scope of this survey but not reported elsewhere on this form -
Please specify in remarks.

SECTION H - CERTIFICATION

▶ **ITEM 10 - CERTIFICATION** - Certify the answer sheet. For this workbook, record the name of the person who can clarify the data reported in this year's survey.

Name of person to contact regarding this report <i>(Print or type)</i>	Telephone		
	Area code	Number	Extension

ITEM 4 - NEW CAPITAL EXPENDITURES FOR POLLUTION ABATEMENT BY MEDIA

Type	Media		
	Air (a)	Water (b)	Solid/Contained Waste (c)
End-of-Line	401 \$, ,000	421 \$, ,000	431 \$, ,000
Production Process (pollution abatement portion)	402 \$, ,000	422 \$, ,000	432 \$, ,000
Total by Media	403 \$, ,000	423 \$, ,000	433 \$, ,000
Percent Hazardous	See Item 5.	424 .0%	434 .0%

ITEM 5 - TYPE OF AIR POLLUTANTS

a. Hazardous air pollutants	501	.0%
b. Particulates, sulfur oxides, nitrogen oxides, carbon monoxide, hydrocarbons - volatile organic compounds, and lead	502	.0%
c. Other nonhazardous air pollutants	503	.0%
d. Total	100	.0%

ITEM 6 - NEW CAPITAL EXPENDITURES FOR UNDERGROUND STORAGE TANKS

New capital expenditures for underground storage tanks	601 \$, ,000
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ITEM 7 - NEW CAPITAL EXPENDITURES FOR SITE CLEANUP

New capital expenditures for site cleanup	701 \$, ,000
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ITEM 8 - NEW CAPITAL EXPENDITURES FOR OTHER POLLUTANTS

New capital expenditures for OTHER pollution abatement	801 \$, ,000
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ITEM 9 - TYPE OF OTHER POLLUTANTS

- 901 Noise pollution that would otherwise disturb the surrounding community
- 902 Radiation that would otherwise reach the surrounding environment
- 903 Multimedia expenditures
- 904 Other pollutants within the scope of this survey but not reported elsewhere on this form -
Please specify in remarks.

ITEM 10 - CERTIFICATION -

This report is substantially accurate and has been prepared in accordance with instructions.

Name of person to contact regarding this report (Print or type) 101	102 Telephone		
	Area code	Number	Extension
Signature of authorized person	Month	Day	Year

Remarks

103 Check here, if you would like a copy of the MA-200 publication without charge.

**RETURN THIS ANSWER SHEET
TO OUR WASHINGTON OFFICE.**

THE WORKBOOK IS FOR YOUR RECORDS.

THANK-YOU FOR YOUR COOPERATION.

FORM PA-2
(1-11-93)

**THIS IS A WORKBOOK WITH A DETACHABLE ANSWER SHEET FOR THE
PLANT AND EQUIPMENT SUPPLEMENT FOR POLLUTION ABATEMENT.**

PLEASE TRANSFER ALL ANSWERS TO THE ANSWER SHEET.

**COMPLETE ITEM 10, CERTIFICATION,
AND RETURN ONLY THE ANSWER SHEET
IN THE ENCLOSED ENVELOPE
TO OUR WASHINGTON OFFICE.**

THIS WORKBOOK IS FOR YOUR RECORDS.

THANK-YOU FOR YOUR COOPERATION.

PLEASE TURN THIS BOOKLET OVER AND BEGIN THE SURVEY WITH THE LETTER.