



Toxics Release Inventory, Technical Assistance, and Service Equity

Teague Powell

Washington (WA) State Department of Ecology

Hazardous Waste and Toxics Reduction (HWTR) Program

September 20, 2022

Table of Contents

- 1 Background
- 2 Mapping Tools
- 3 Evaluating Equity
- 4 Next Steps
- 5 Workforce Considerations
- 6 Questions

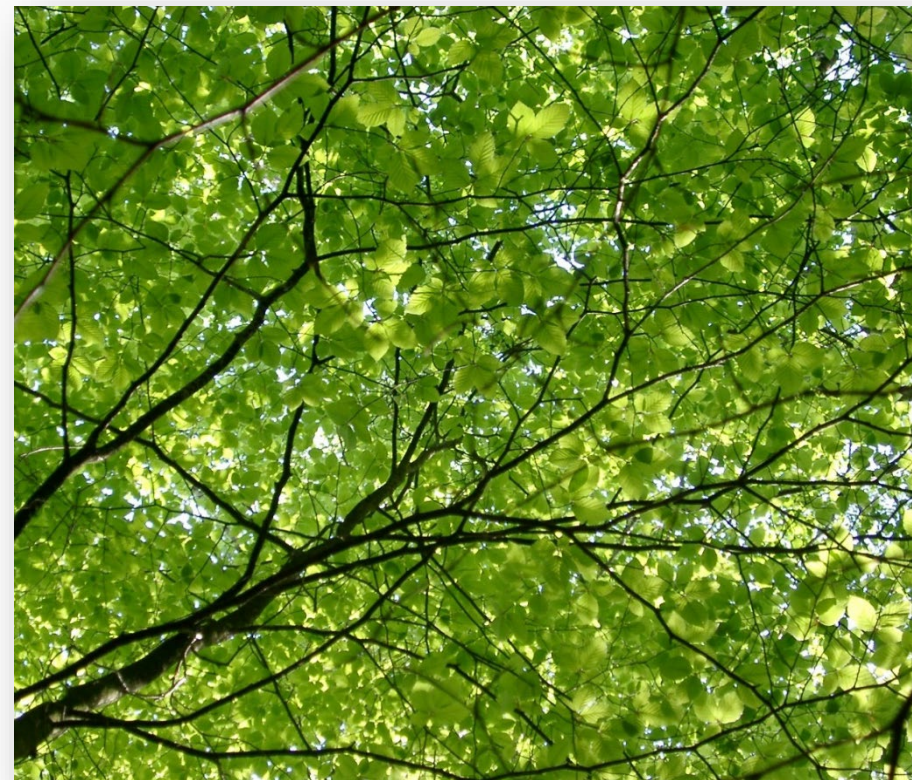
Relevant Historical Landmarks

1964	<p>Title VI of the Civil Rights Act - prohibits discrimination on the basis of race, color, or national origin in any program or activity that receives Federal funds or other Federal financial assistance.</p>
1994	<p>Executive Order 12898 - directs federal agencies to: identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law.</p>
2021	<p>WA State’s Healthy Environment for All (HEAL) Act - defines ‘environmental justice’ in state law, outlines how state agencies should consider community needs and environmental justice (EJ) in their work, establishes a permanent EJ Council to work with these agencies and help create EJ legislation, and expands equitable community participation.</p>

Environmental Justice – A Definition

“ The **fair treatment** and **meaningful involvement** of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. ”

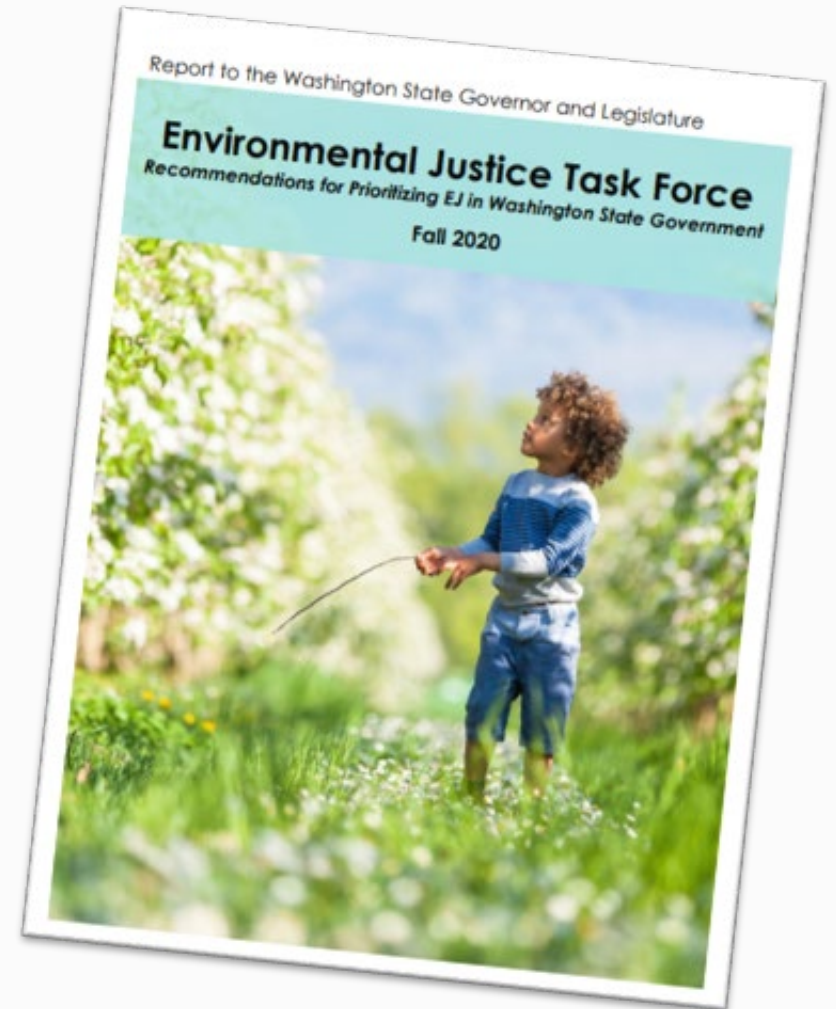
- Healthy Environment for All (HEAL) Act



Roadmap to Implementation

Washington State Environmental Justice Task Force Final Report recommendations:

- **Integrate** Department of Health's [WA Tracking Network \(WTN\)](#)
- **Identify** areas of high concern
- Guide and **inform** with respect to EJ concerns
- Conduct EJ **review and analysis**
- **Center** EJ as a priority outcome in resource allocation
- Set environmental health disparity **goals** and track **progress**.



The Washington Tracking Network



Environmental Health Disparities Score

Composite Score

Pollution Burden Score

Environmental Exposures

- Diesel emissions
- Ozone
- Particulate Matter 2.5
- Toxic releases
- Traffic density

Environmental Effects

- Lead risk and exposure
- Proximity to hazardous waste sites
- Proximity to Superfund sites
- Proximity to facilities with highly toxic substances
- Wastewater discharge

Population Characteristics Score



Sensitive Populations

- Cardiovascular disease
- Low birth weight infants

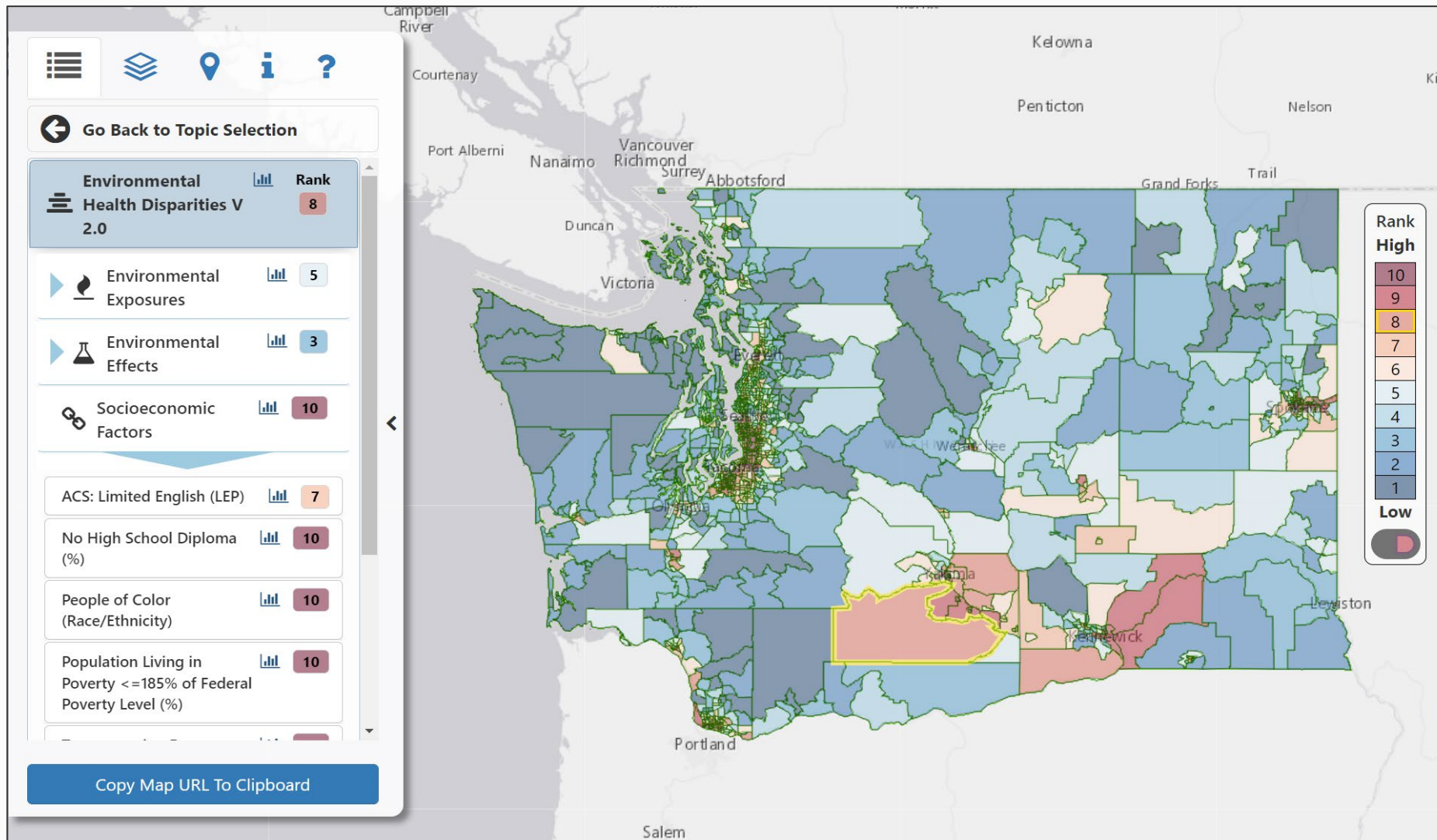
Socioeconomic Factors

- Race (People of color)
- Poverty
- Unemployment
- Poor educational attainment
- Housing burden
- Linguistic isolation
- Transportation Expense

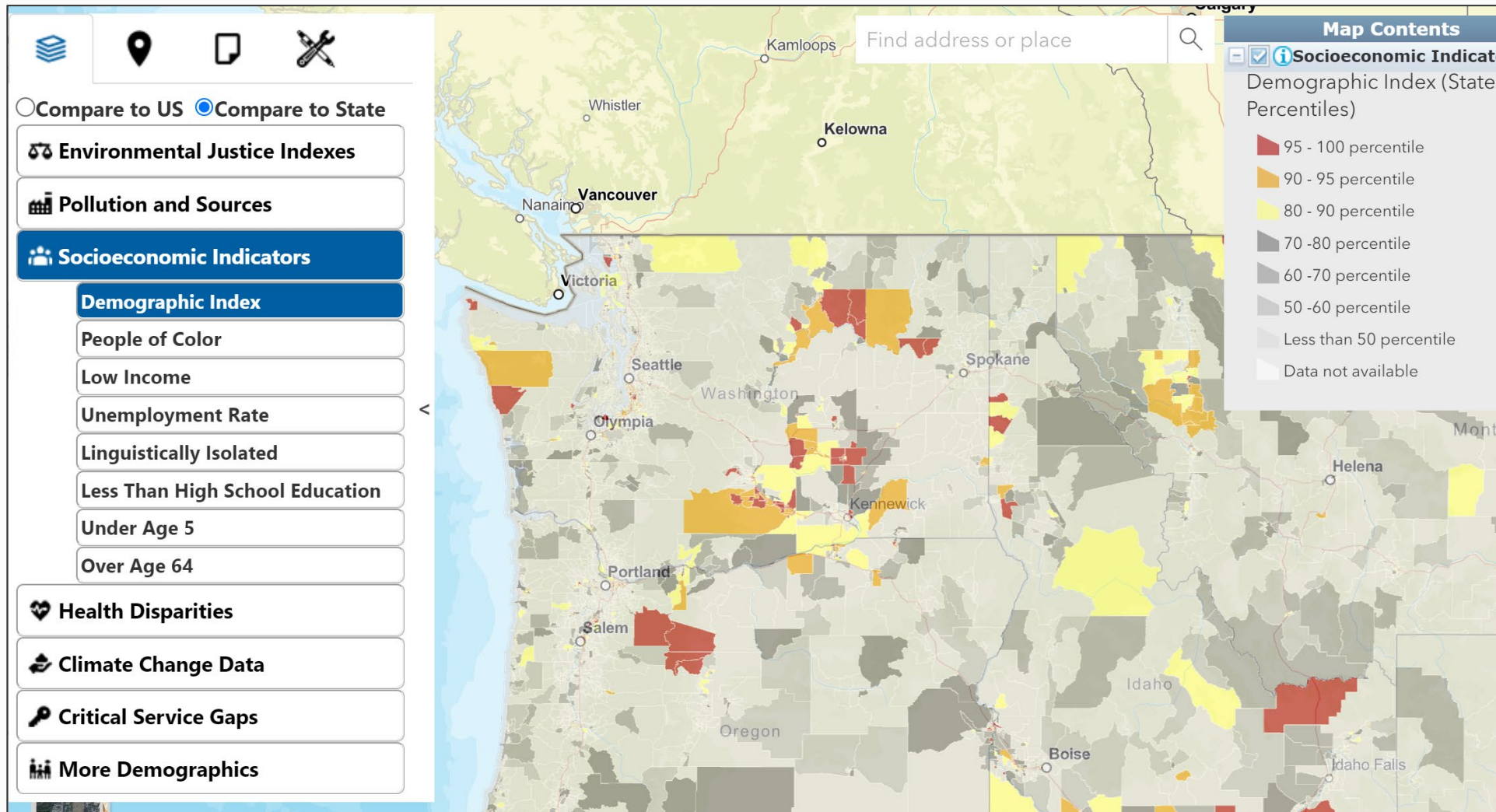
Mapping Tools for Environmental Justice

Washington State:	Nationally:
 <p>WA State Department of Health's WA Tracking Network (WTN)</p>	 <p>Environmental Protection Agency's (EPA) EJ Screening and Mapping Tool (EJScreen)</p>
<p>Environmental Health Disparities (cumulative)</p> <ul style="list-style-type: none"> • Environmental Exposure • Environmental Effects • Socioeconomic Risk Factors • Sensitive Populations 	<ul style="list-style-type: none"> • Demographics • Pollution Sources • EJ Indexes • Health Disparities • Climate Change • Critical Service Gaps

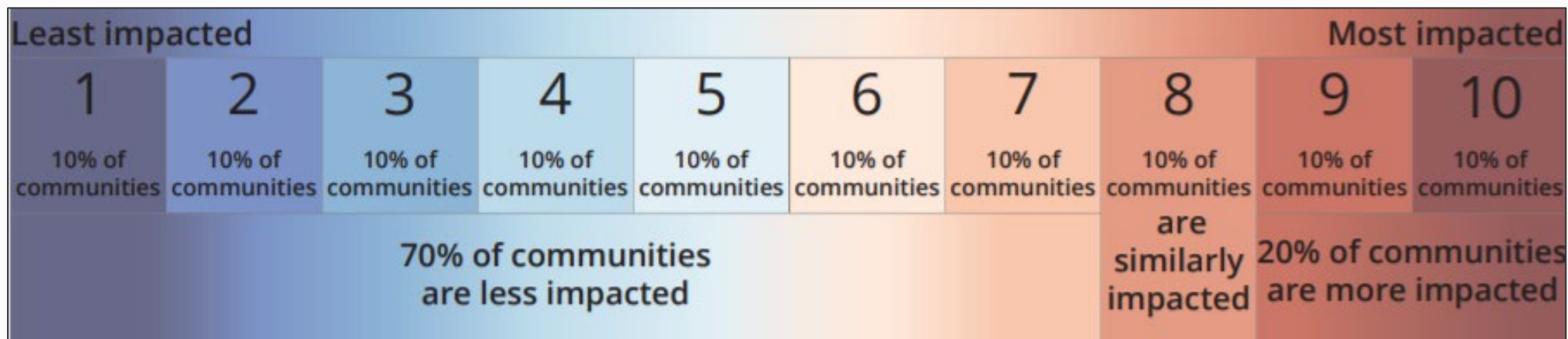
Mapping Tools for Environmental Justice



Mapping Tools for Environmental Justice

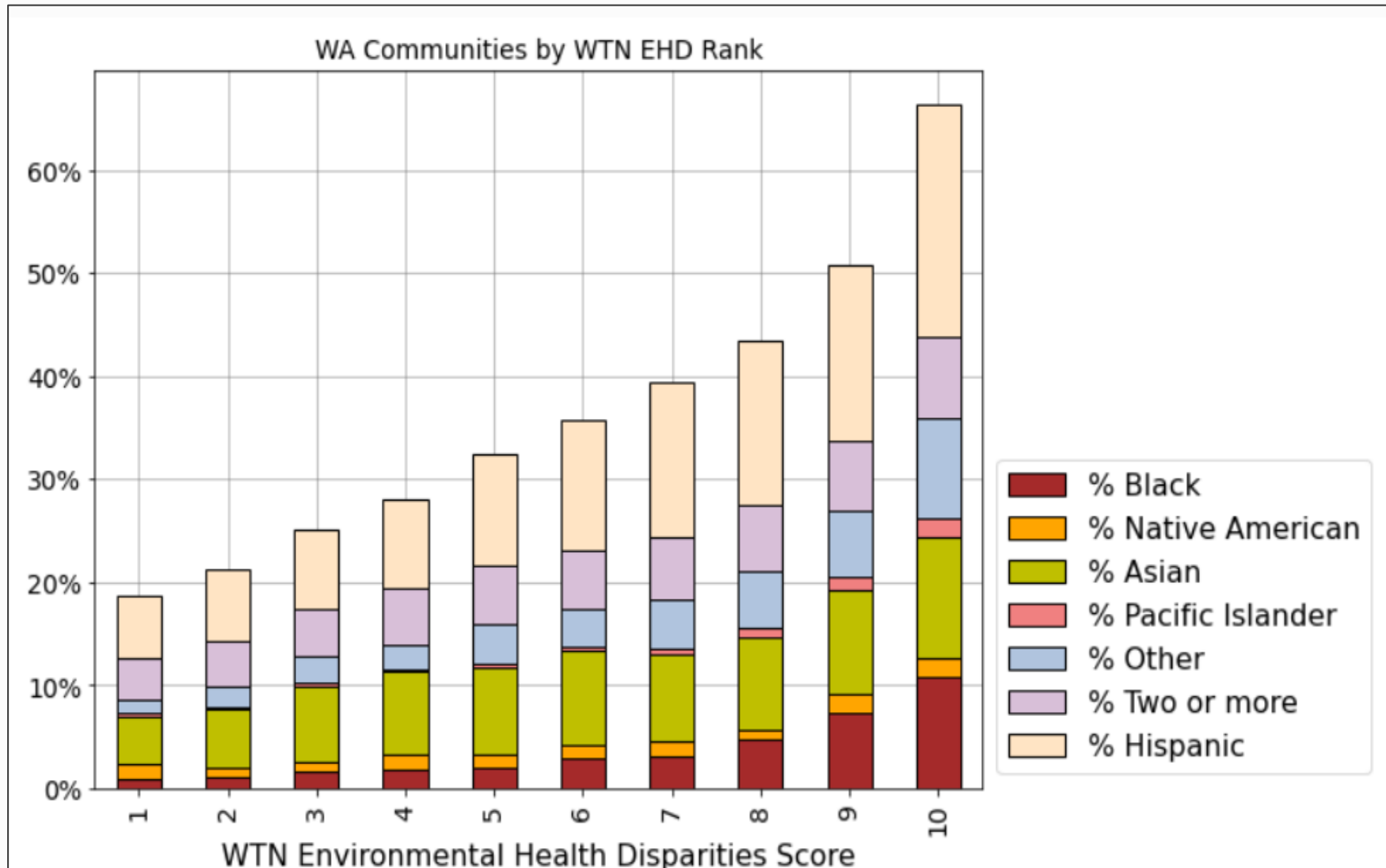


The Washington Tracking Network

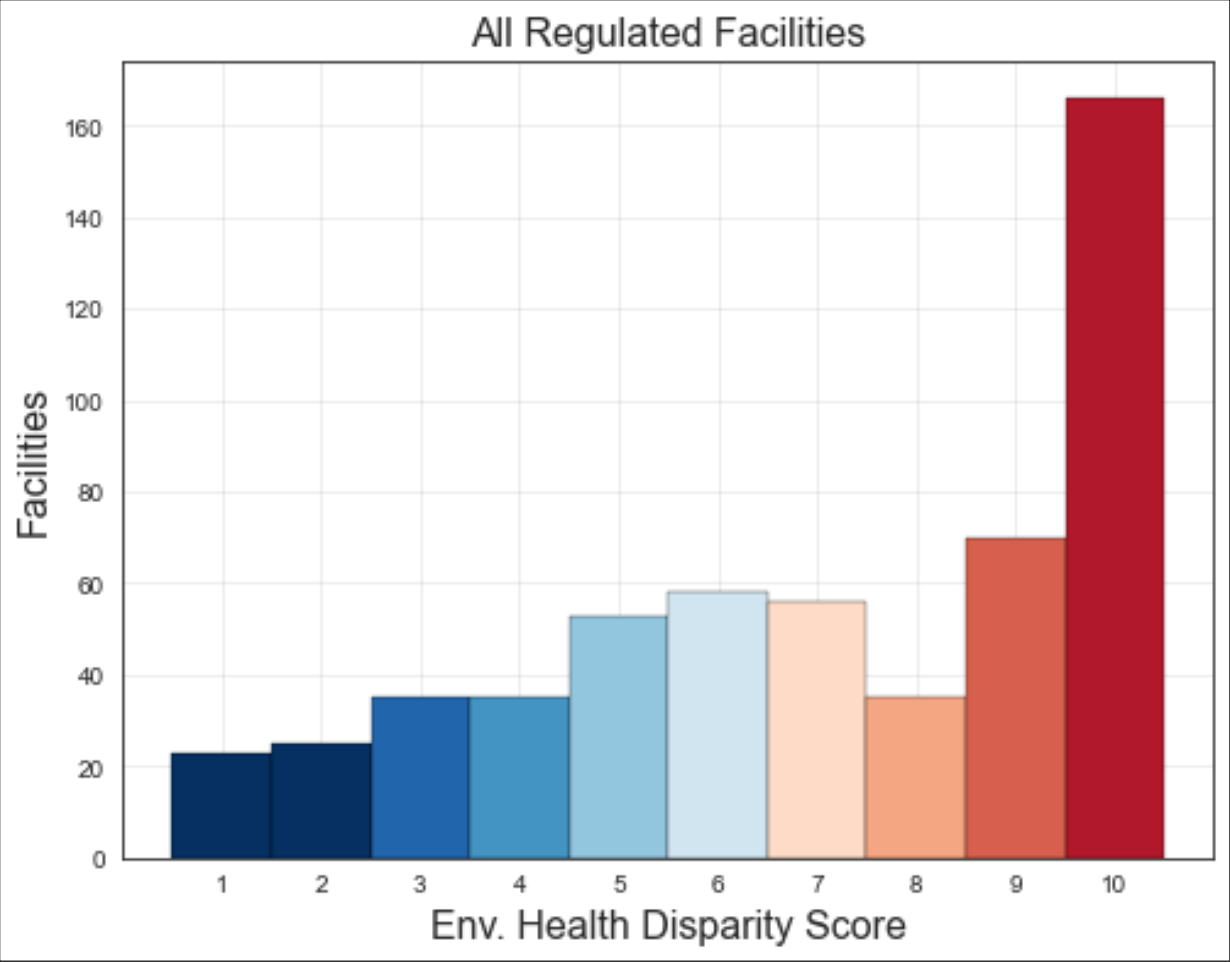
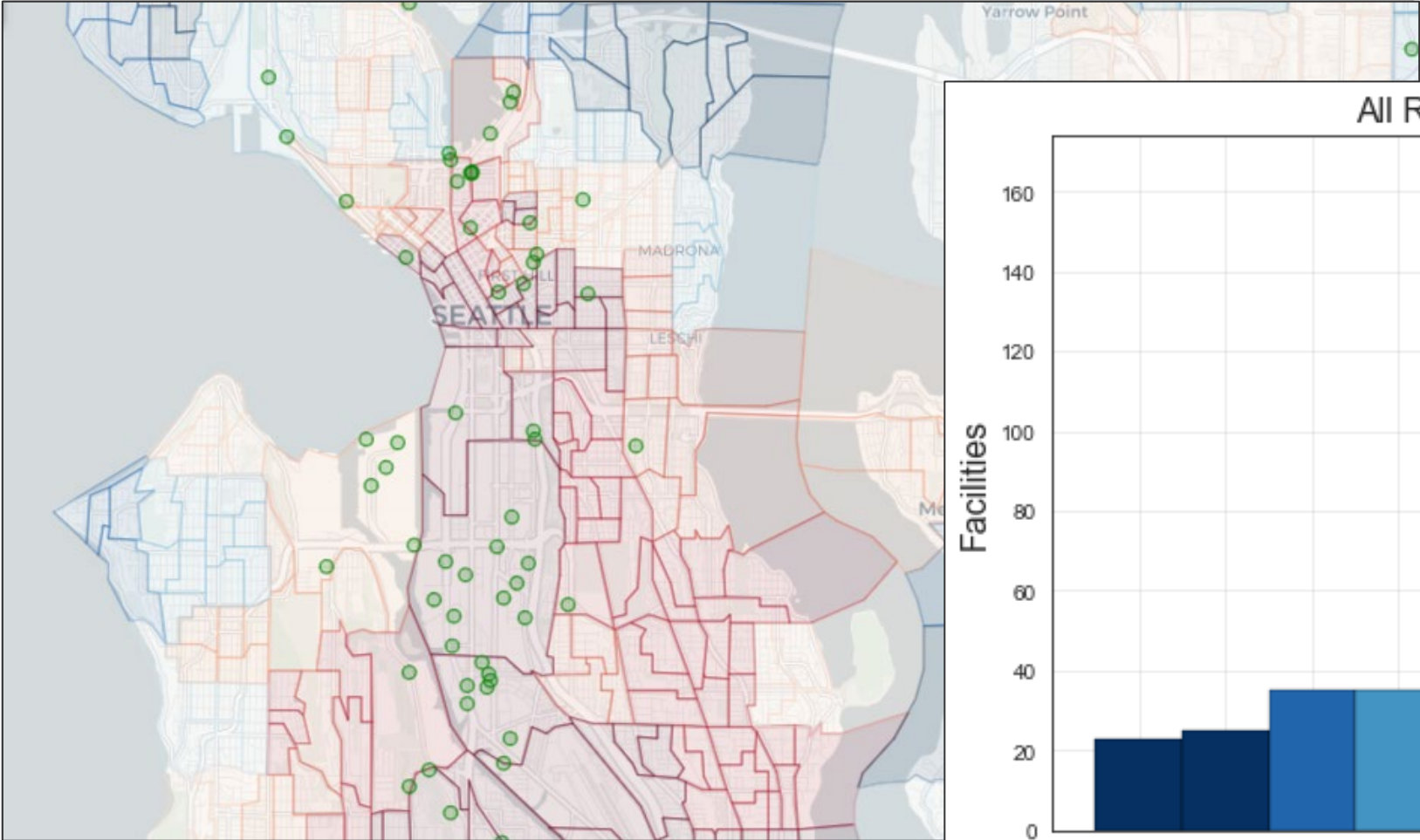


- Each 1-10 score corresponds to ~10% of WA communities (census tracts)
- Roughly equivalent to EPA's EJScreen's state percentile rankings

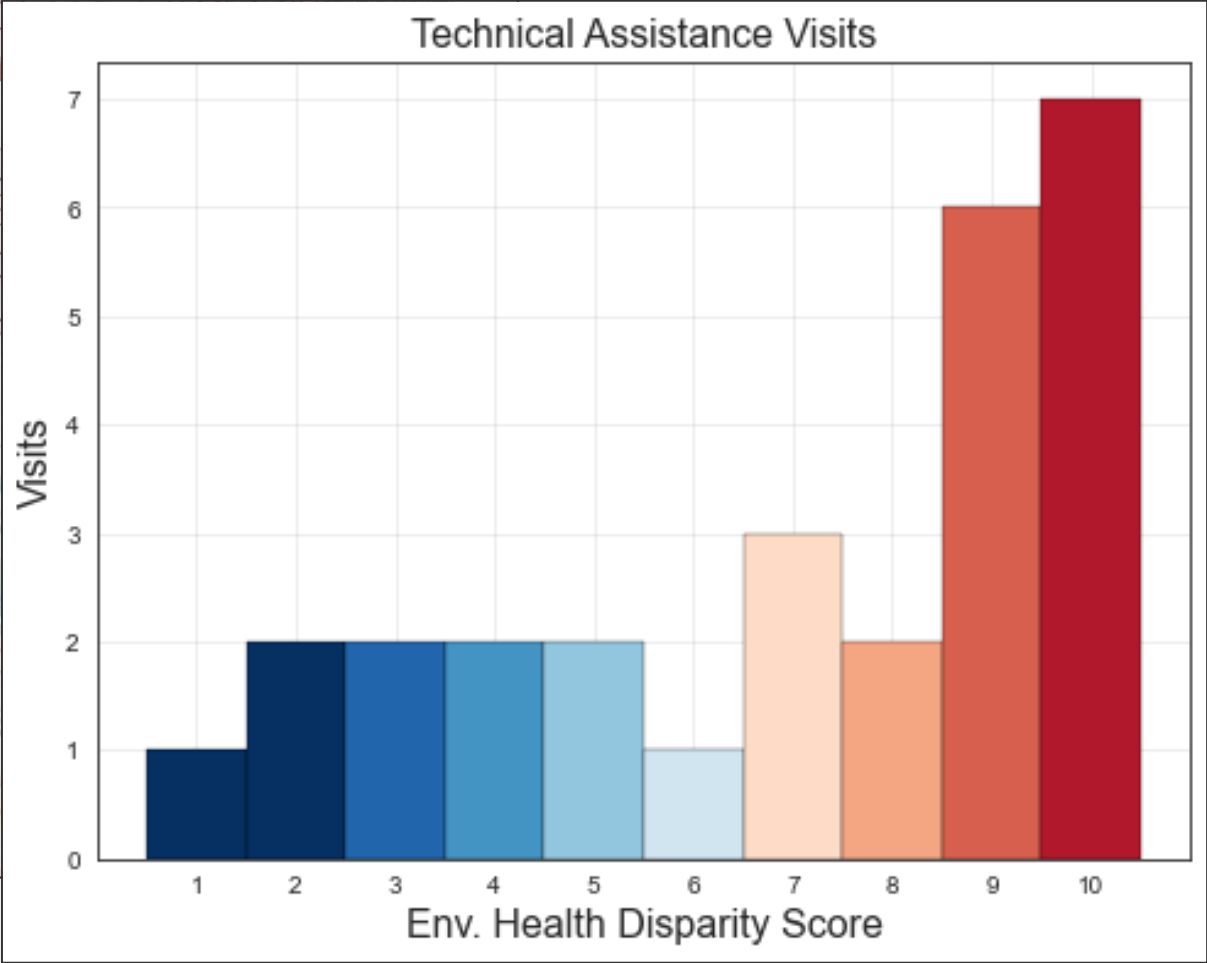
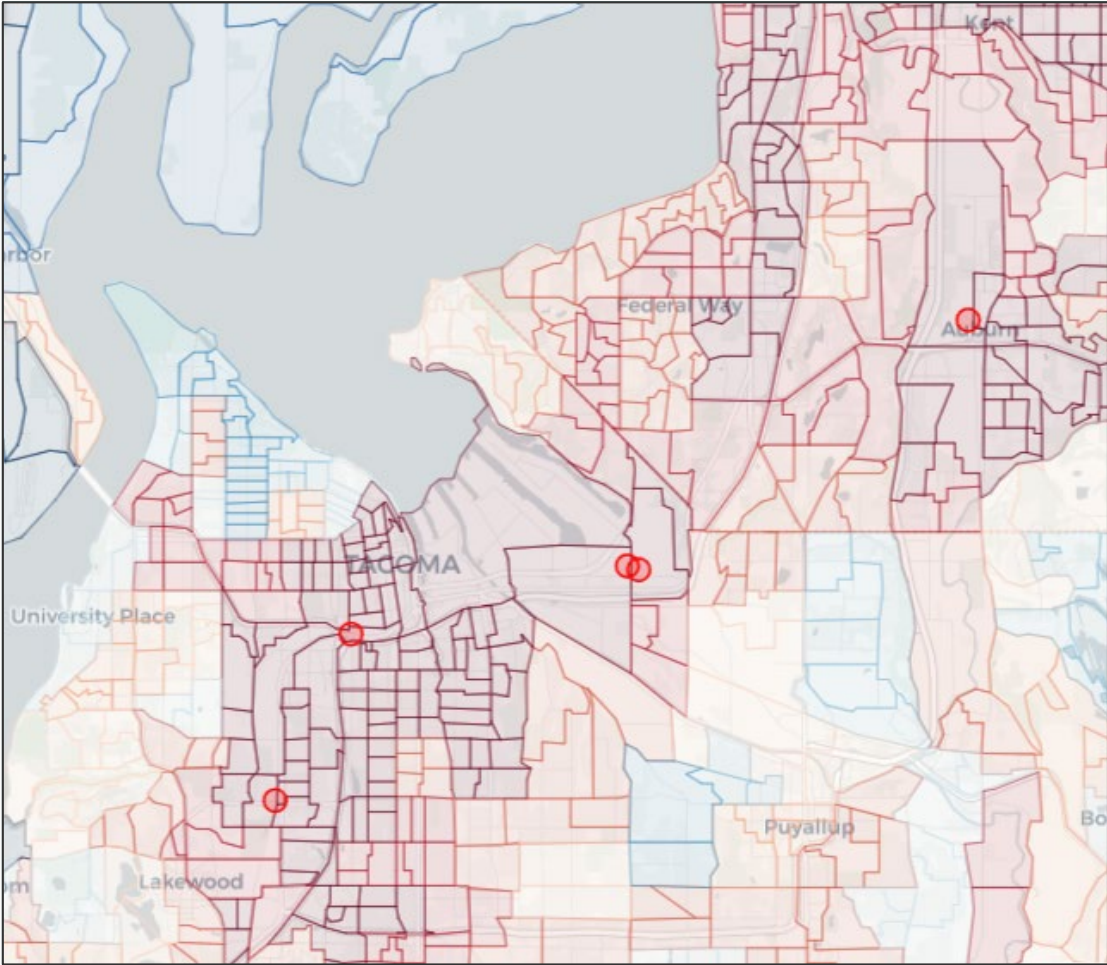
Disparate Outcomes



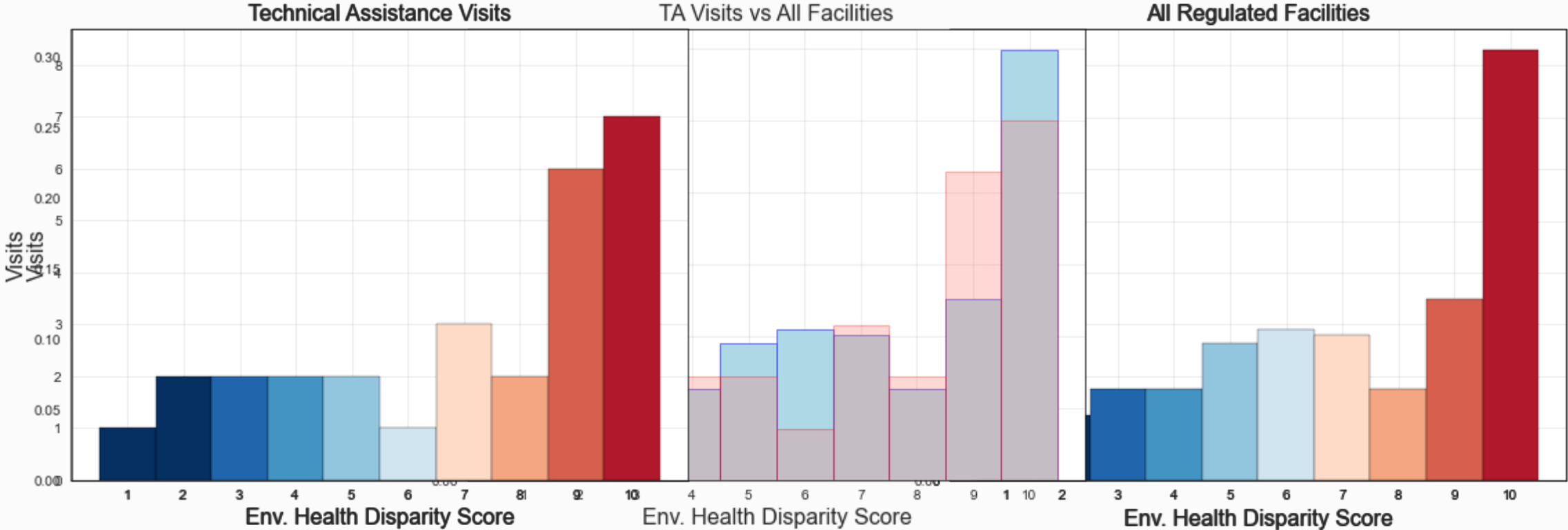
Hazardous Waste Facilities



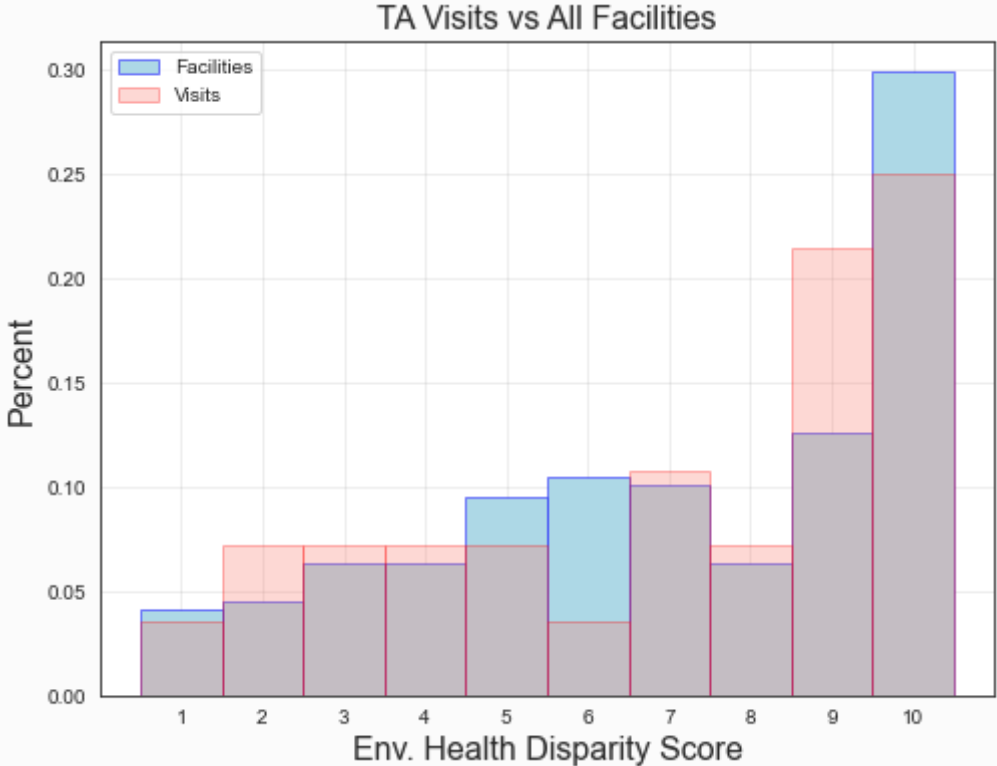
Visits to Hazardous Waste Facilities



Comparing Distributions



Evaluating Service Equity



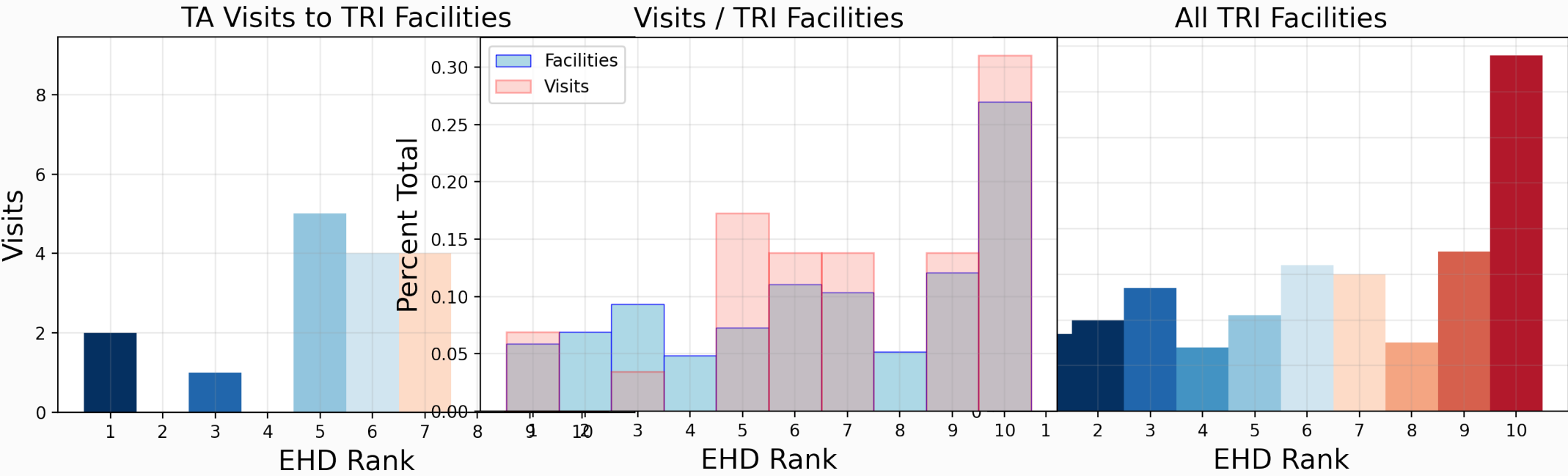
We visited **15** of the **320** facilities in areas that rank **below** the 80th percentile of concern.



We visited **13** of the **236** facilities in areas that rank **above** the 80th percentile of concern.

We visited areas of higher concern **at a rate 0.8% greater** than the rate at which we visited areas of lower concern

Comparing Distributions



Setting Goals

- Map our workflow, identify key decision points, and encourage EJ to be considered
- Percentage of visits (*an output*) directed to facilities in EJ communities
- A significant portion of project success measures (*an outcome*) be achieved at facilities in EJ communities
- Continuous improvement and innovation

Exploring EJ in the Workforce

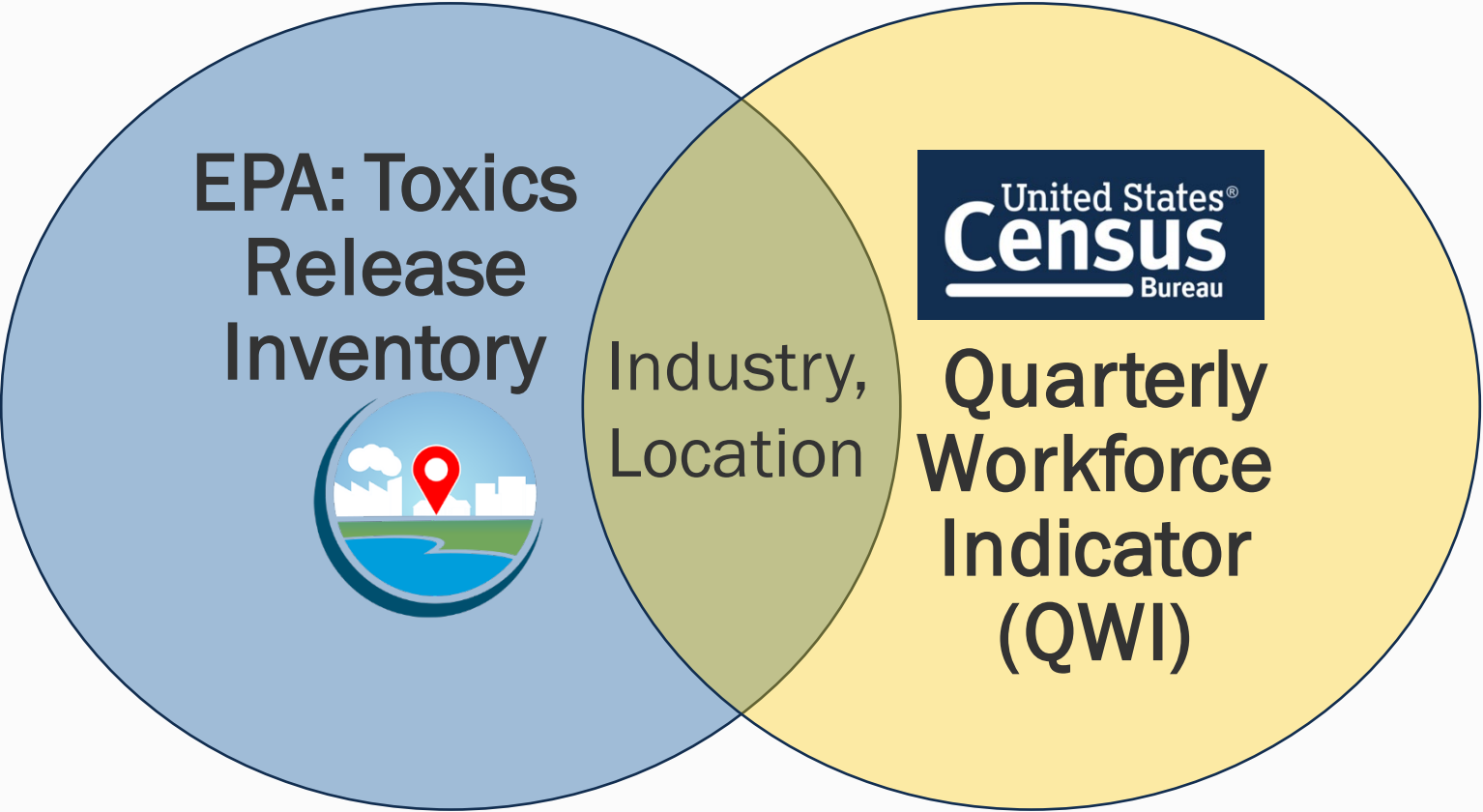


Quarterly Workforce Indicator (QWI)

A set 32 economic indicators covering:

- Employment
- Job growth / decline
- Wages
- Worker Demographics
 - Geography (State - County)
 - Age / sex
 - Race
 - Ethnicity
 - Education

Exploring EJ in the Workforce



Exploring EJ in the Workforce

Facility	Emissions (lbs)	Industry NAICS	Location	Employed in Industry	Race	Ethnicity	Wages
ABW TECHNOLOGIES	4,057	332999 Fabricated Metal	Snohomish, WA	640	...	...	...
ACE GALVANIZING INC	126,143	332812 Coating, Engraving, Heat Treating	King, WA	1202	...	...	...
ACHILLES USA INC	2,617	326113 Plastics Mfg	Snohomish, WA	501	...	...	...
... 245 records ...							
WESTROCK TACOMA MILL	579,399	322130 Pulp, Paper Mfg	Pierce, WA	389	...	...	...
YOUNG CORPORATION MELTEC DIV	2,892	331513 Foundries	King, WA	203	...	...	...

TRI Facilities

Sorted by Estimated Hispanic or Latino Workforce

Facility Name	Industry	County	State	All Races	% American Indian or Alaska Native Alone	% Asian Alone	% Hispanic or Latino	% Black or African American Alone	% Native Hawaiian or Other Pacific Islander Alone	% Two or More Race Groups	% White Alone	% Non White
YOUNG CORPORATION MELTEC DIV	3315 -Foundries	KING	WA	203	0.0%	18.2%	32.5%	2.9%	1.0%	2.4%	73.8%	24.6%
FOSTER POULTRY FARMS KELSO PLANT	3116 -Animal Slaughtering and Processing	COWLITZ	WA	901	2.1%	13.1%	26.5%	3.8%	3.0%	3.8%	74.1%	25.9%
MOREL INDUSTRIES INC	3315 -Foundries	SNOHOMISH	WA	217	2.3%	17.9%	20.3%	3.6%	0.0%	2.8%	73.2%	26.7%
CERTAINTED GYPSUM SEATTLE	3274 -Lime and Gypsum Product Manufacturing	KING	WA	267	0.7%	15.3%	16.5%	12.7%	0.0%	3.0%	67.4%	31.8%
SR SMITH LLC	3261 -Plastics Product Manufacturing	SNOHOMISH	WA	501	1.8%	12.3%	15.2%	11.2%	1.4%	4.6%	68.9%	31.3%
ACHILLES USA INC	3261 -Plastics Product Manufacturing	SNOHOMISH	WA	501	1.8%	12.3%	15.2%	11.2%	1.4%	4.6%	68.9%	31.3%
EMERALD SERVICES INC	5621 -Waste Collection	KING	WA	1334	1.7%	6.6%	14.4%	14.2%	2.1%	6.0%	69.2%	30.8%
...												

TRI Facilities

Sorted by Estimated Black or African American Workforce

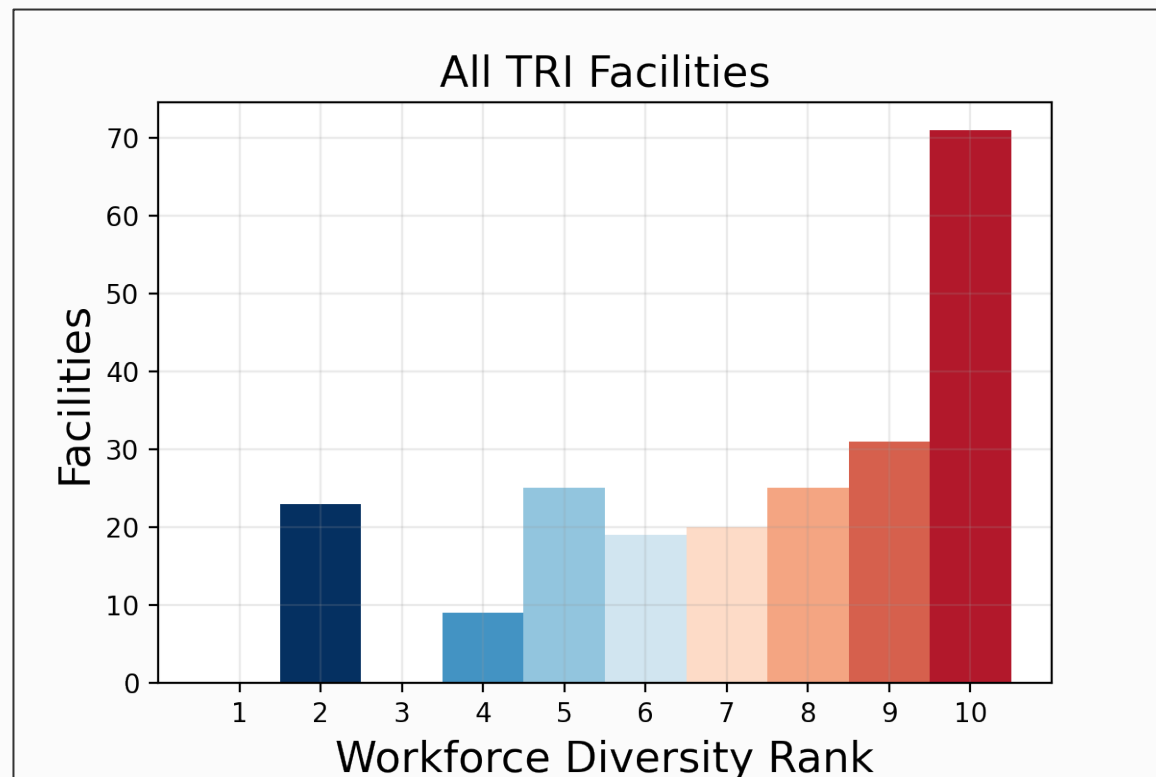
Facility Name	Industry	County	State	All Races	% American Indian or Alaska Native Alone	% Asian Alone	% Hispanic or Latino	% Black or African American Alone	% Native Hawaiian or Other Pacific Islander Alone	% Two or More Race Groups	% White Alone	% Non White
EMERALD SERVICES INC	5621 - Waste Collection	KING	WA	1334	1.7%	6.6%	14.3%	14.2%	2.1%	6.0%	69.1%	30.8%
CERTAINTEED GYPSUM SEATTLE	3274 - Lime and Gypsum Product Manufacturing	KING	WA	267	0.7%	15.3%	16.4%	12.7%	0.0%	3.0%	67.4%	31.8%
BRADKEN ENERGY	3315 - Foundries	PIERCE	WA	262	0.0%	15.6%	12.9%	12.6%	0.0%	2.2%	67.2%	30.5%
PRAXAIR SPECIALTY CERAMICS	3251 - Basic Chemical Manufacturing	KING	WA	56	0.0%	5.3%	0.0%	12.5%	0.0%	5.3%	75.0%	23.2%
SR SMITH LLC	3261 - Plastics Product Manufacturing	SNOHOMISH	WA	501	1.8%	12.3%	15.1%	11.2%	1.4%	4.5%	68.9%	31.3%
ACHILLES USA INC	3261 - Plastics Product Manufacturing	SNOHOMISH	WA	501	1.8%	12.3%	15.1%	11.2%	1.4%	4.5%	68.9%	31.3%
GEORGIA-PACIFIC GYPSUM LLC	3274 - Lime and Gypsum Product Manufacturing	PIERCE	WA	107	0.0%	3.7%	11.2%	10.3%	5.6%	5.6%	72.9%	25.23
...												

TRI Facilities

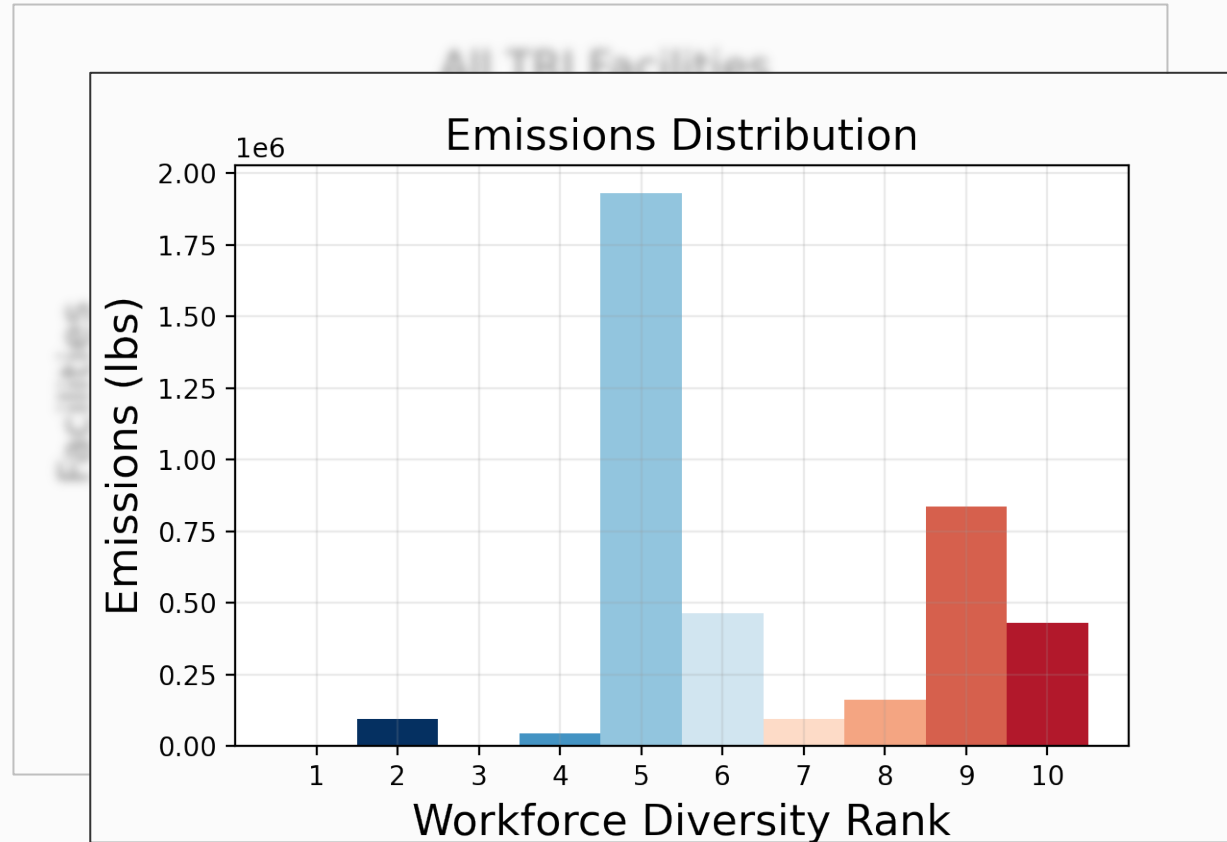
Sorted by Estimated Minority Workforce

Facility Name	Industry	% Minority	Minority Rank	TRI Emissions (lbs)	RSEI Hazard Score
SCHIPPERS & CREW INC	3344 - Semiconductor and Other Electronic Component Manufacturing	57.6%	10	0.2315	5,325
CONAGRA FOODS FROZEN BAKERY PRODUCTS	3114 - Fruit and Vegetable Preserving and Specialty Food Manufacturing	53.6%	10	5	35
PROTECTIVE COATINGS INC	3328 - Coating, Engraving, Heat Treating, and Allied Activities	39.6%	10	14,018.2	40,220,018
ARDAGH GLASS INC	3272 - Glass and Glass Product Manufacturing	37.3%	10	1,074.57	3,050,200,870
FUTURE FOAM INC	3261 - Plastics Product Manufacturing	34.4%	10	150	7,500,000
CERTAINTEED GYPSUM SEATTLE	3274 - Lime and Gypsum Product Manufacturing	31.8%	10	5.4	89,000
TEREX WASHINGTON SOUTH CAMPUS	3339 - Other General Purpose Machinery Manufacturing	31.6%	10	405.48	4,288,314

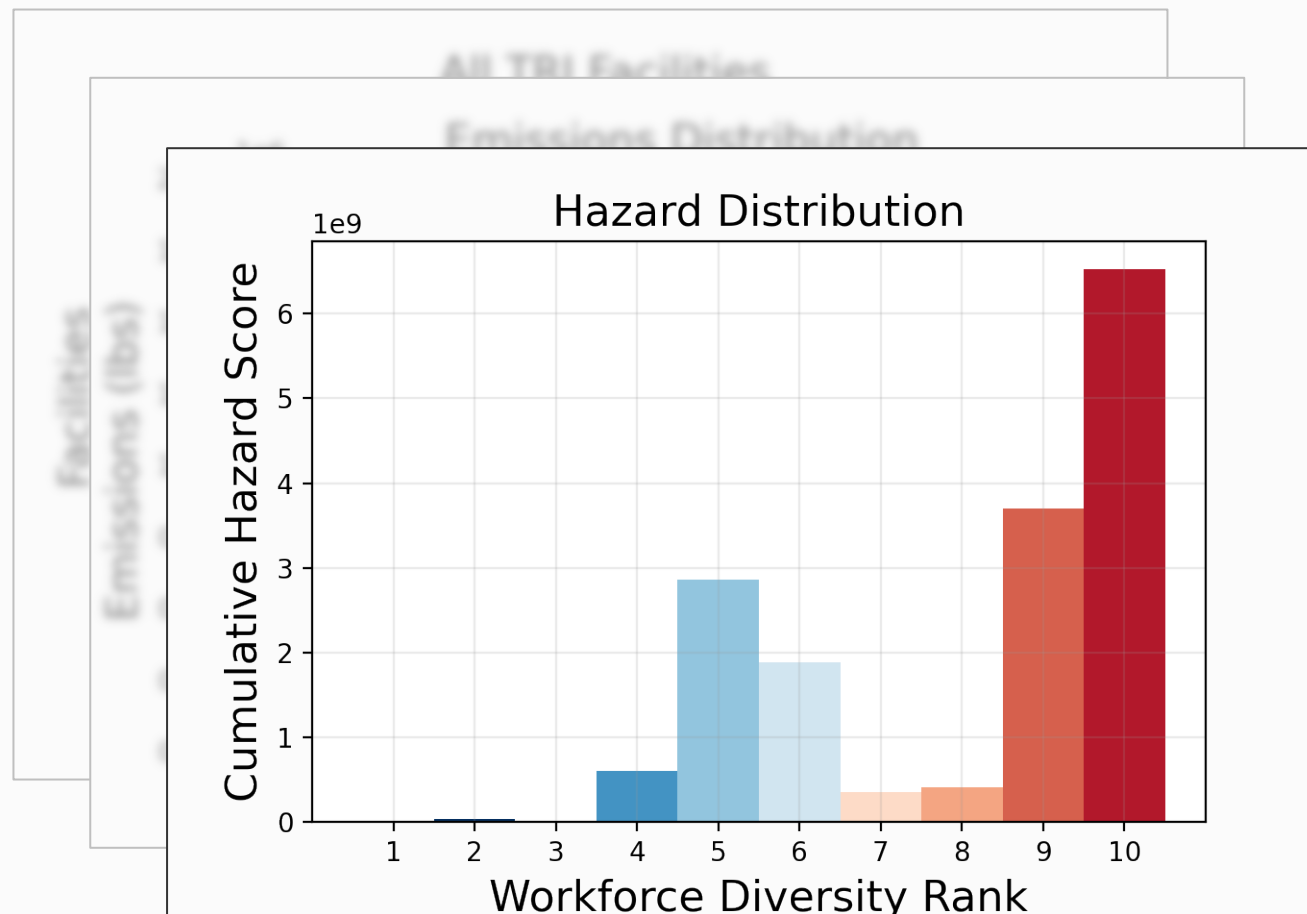
TRI Impacts Vs Workforce Diversity



TRI Impacts Vs Workforce Diversity



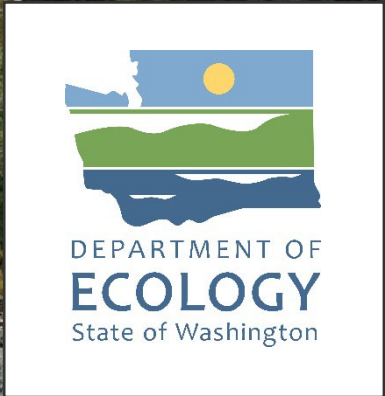
TRI Impacts Vs Workforce Diversity



Next Steps?

- Better inform the decision making process
- Improve measures and thresholds
- Identify and engage with actual communities, not just census tracts or workforce profiles
- Ground truth and improve tools





Thank you

Questions, Feedback?

Teague Powell

Research Analyst

WA State Department of Ecology

Hazardous Waste Toxics Reduction Program

teague.powell@ecy.wa.gov