

SEPTEMBER
30, 2019

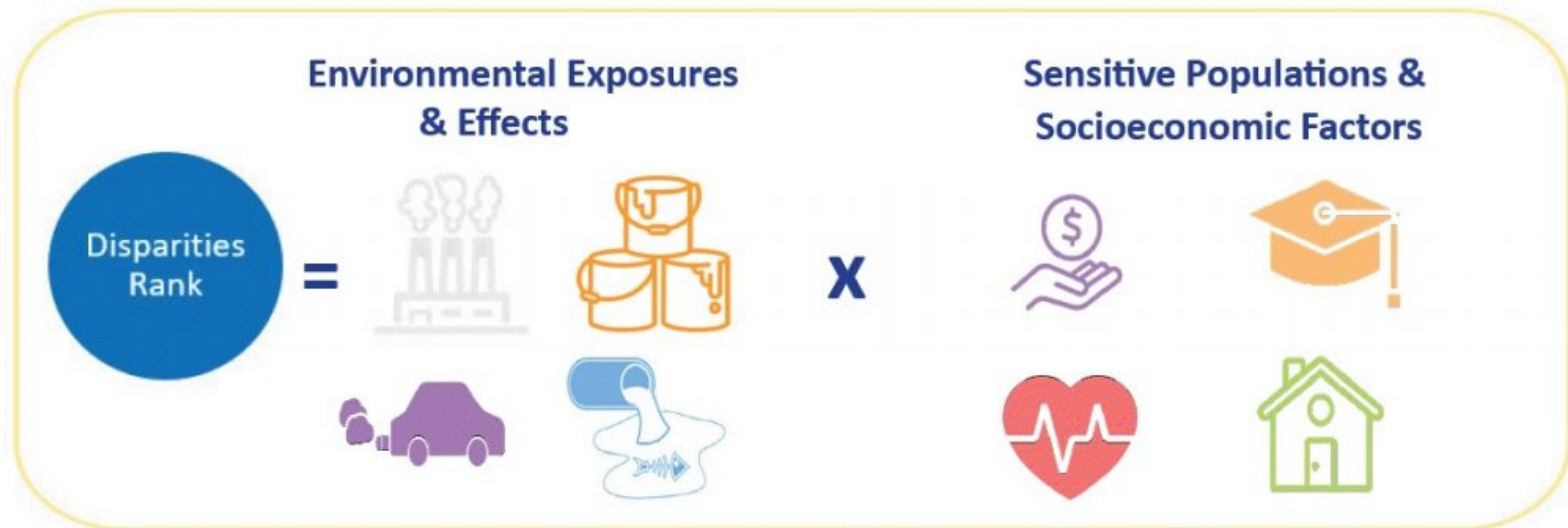
WASHINGTON ENVIRONMENTAL HEALTH DISPARITIES MAP

PARTNERS

W ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES
UNIVERSITY of WASHINGTON | SCHOOL OF PUBLIC HEALTH



FRAMEWORK



*Icons shown do not represent all 19 indicators on the map.

LISTENING SESSIONS

- ✘ Involved Front & Centered Partner Organizations
- ✘ Multi-cultural/lingual conversations about pollution, climate change, sensitivity, and resilience.

What kinds of pollution, if any, are impacting your life or work and that of your family and community?

What factors best show if your community is healthy or doing well compared to other communities?

| Organization | Date | Location | Participant Information | Participant Count | Language | Issues |
|-------------------------------|------------------------|-----------------------|--|-------------------|-----------------|---------------------------------|
| OneAmerica | 7/31/2017 | Vancouver | Latinx from Fruit Valley and surrounding neighborhoods | 20 | Spanish/English | Pollution, Climate, Puget Sound |
| Chaplains on the Harbor | 8/15/2017 8/20/2017 | Westport & Aberdeen | Homeless, Incarcerated, Native, Latinx, from Grays Harbor County | 9 | English | Pollution, Climate, Puget Sound |
| Community to Community | 8/17/2017 | Bellingham | Farm Workers, Latinx, Youth from Whatcom and Skagit County. | 15 | Spanish | Pollution, Climate, Puget Sound |
| Latino Community Fund | 8/18/2017 | Ellensburg | Latinx youth, from central Washington | 29 | Spanish/English | Pollution, Climate, Puget Sound |
| Entre Hermanos | 8/23/2017 | Seattle | Latinx from Seattle metropolitan area | 12 | Spanish | Pollution, Climate, Puget Sound |
| Na'ah Illahee Fund | 8/25/2017 9/7/2017 | Port Angeles & Yakima | Native, from Peninsula, central and eastern Washington | 7 | Various/English | Pollution, Climate, Puget Sound |
| Mother Africa | 8/25/2017 | Kent | North African / Arab from south King County | 12 | Arabic/English | Pollution, Climate |
| NAACP Snohomish | 9/9/2017 | Everett | African American, various from Snohomish County | 10 | English | Pollution, Climate |
| Asian Pacific Cultural Center | 11/13/2017 | Pierce County | Asian Pacific Islanders from Pierce County | 44 | Korean/English | Pollution, Climate, Puget Sound |

SYMPOISUM



THE REPORT

Washington Environmental Health Disparities Map
Comparing environmental health risk factors across communities

W ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES SCHOOL OF PUBLIC HEALTH UNIVERSITY OF WASHINGTON

FRONT AND CENTERED

Washington State Department of Health

ENVIRONMENTAL HEALTH TRACKING

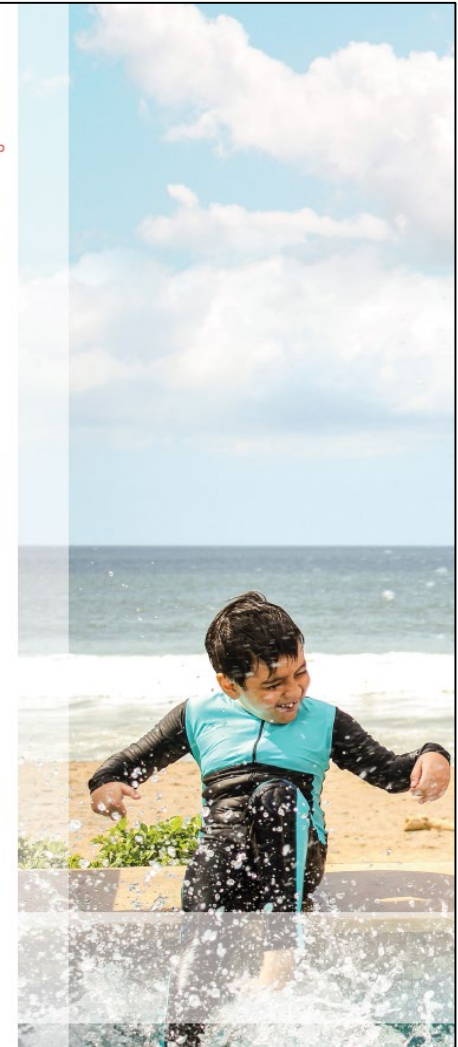
pscleanair.org
Puget Sound Clean Air Agency

Contact Information

Access the mapping tool
<https://fortress.wa.gov/doh/wtn/WTNIBL>

UW project website
deohs.washington.edu/washington-state-envmap

Email
envmap@uw.edu



WASHINGTON EH DISPARITIES MAP

-THE INDICATORS

Environmental exposures

Diesel emissions

Ozone

Particulate matter 2.5 (PM2.5)

Toxic releases from facilities

Traffic density

Environmental effects

Lead risk and exposure

Proximity to hazardous waste generators and facilities

Proximity to Superfund sites

Proximity to facilities with highly toxic substances

Wastewater discharge

Sensitive populations

Cardiovascular disease

Low birth weight

Socioeconomic factors

Low educational attainment

Housing burden and transportation expense

Linguistic isolation

Poverty

Race (people of color)

Unemployment

WASHINGTON EH DISPARITIES MAP

Final composite score

Final composite score = Pollution Burden score × Population Characteristics score

Pollution burden

$$\text{Pollution burden score} = \frac{\left(\text{Average percentile of Environmental Exposures indicators} + 0.5 \times \text{Average percentile of Environmental Effects indicators} \right)}{2}$$

Population characteristics

$$\text{Population characteristics score} = \frac{\left(\text{Average percentile of Sensitive Population indicators} + \text{Average percentile of Socioeconomic Factors indicators} \right)}{2}$$

**Environmental
exposures**

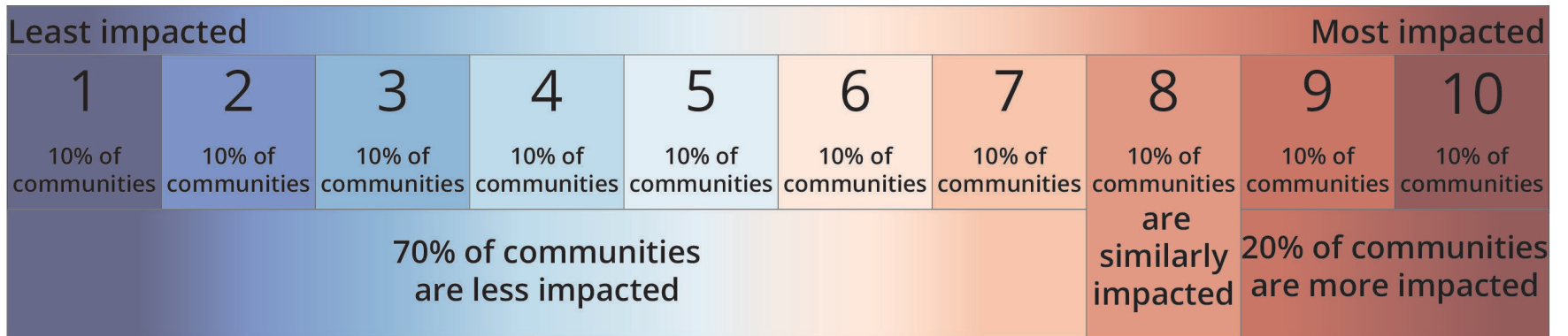
**Environmental
effects**

**Sensitive
populations**

**Socioeconomic
factors**



RANKING





THE TOOL

FIND IT AT: [HTTPS://FORTRESS.WA.GOV/DOH/WTN/WTNIBL/](https://fortress.wa.gov/doh/wtn/wtnibl/)



WASHINGTON TRACKING NETWORK

Washington State Department of Health

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🏠 [Data and Statistical Reports](#) > [Environmental Health](#) > [Washington Tracking Network \(WTN\)](#)

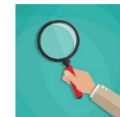
| |
|-----------------------------------|
| Washington Tracking Network (WTN) |
| Air Quality |
| Asthma |
| Biomonitoring |
| Birth Outcomes |
| Body Mass Index |
| Cancer |
| Carbon Monoxide |
| Climate Change |
| Community Characteristics |
| Drinking Water |
| Heart Attack |
| Heat Stress |
| Information by Location |

Washington Tracking Network (WTN)

Welcome to WTN, your source for environmental and public health data.

[Search WTN Data](#)

Sort, export, chart and map data for environmental and public health measures. [Search data](#) now



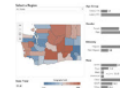
[Information by Location \(IBL\)](#)

Explore community rankings for topics such as health disparities (differences) and lead exposure risk. View [Information by Location](#) tool now.



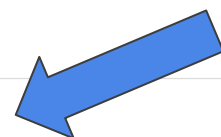
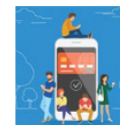
[WTN Dashboards](#)

View WTN data in a new way. Like our current tools, these [dashboards](#) have maps, charts and graphs. You can see these features in the same view.



[WTN On The Go](#)

Use your phone or tablet to view our new [tool](#) for environmental health topics, such as radon. Touch the maps to see data for your community.






Washington Tracking Network

A Source for Environmental Public Health Data

Home

Home > Data and Statistical Reports > Environmental Health > Washington Tracking Network (WTN)



- Environmental Health Disparities
- Diesel Pollution and Disproportionate Impact
- Social Vulnerability to

Contact Us

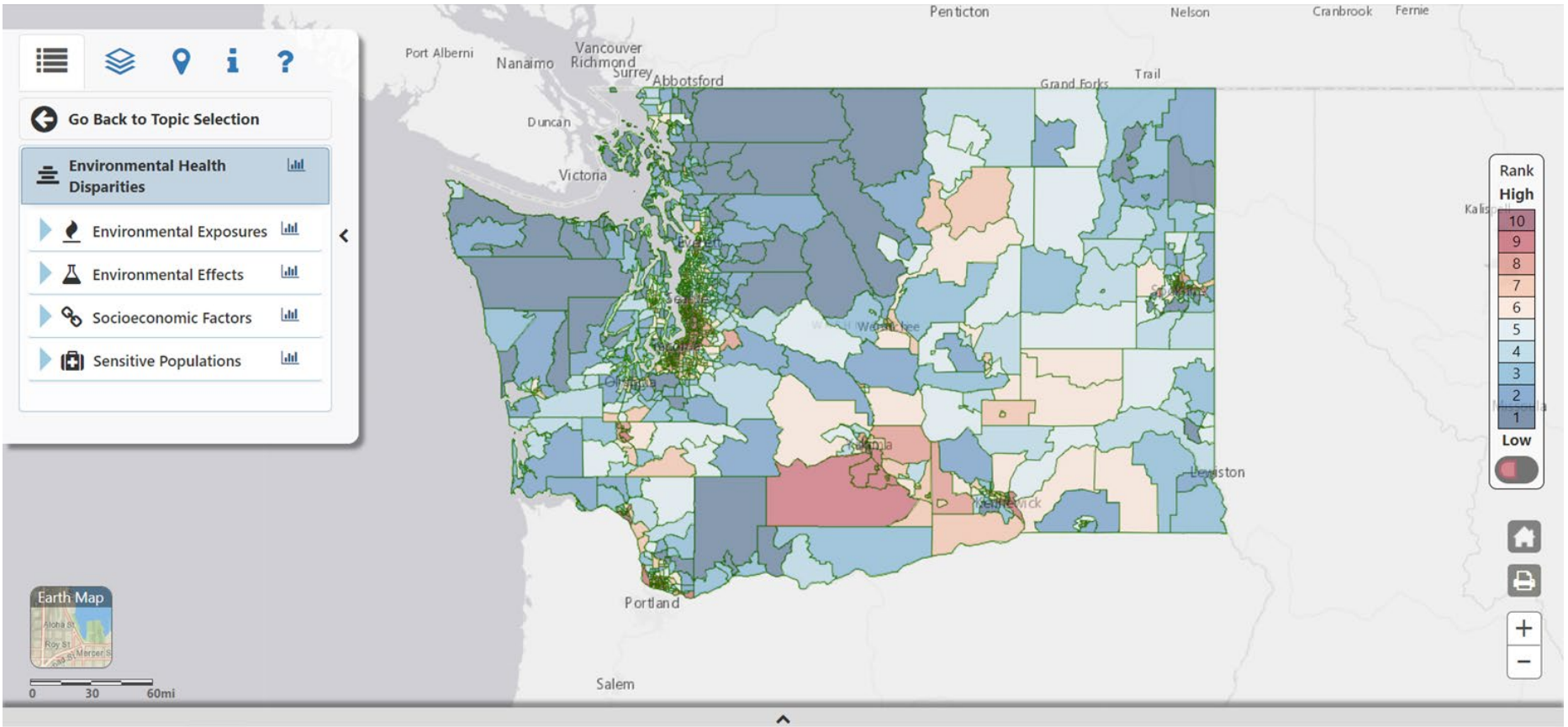
- Contact WTN at 877-485-7316
- WTN Main Page
- Agency Contact
- Let us know what you think about our site!

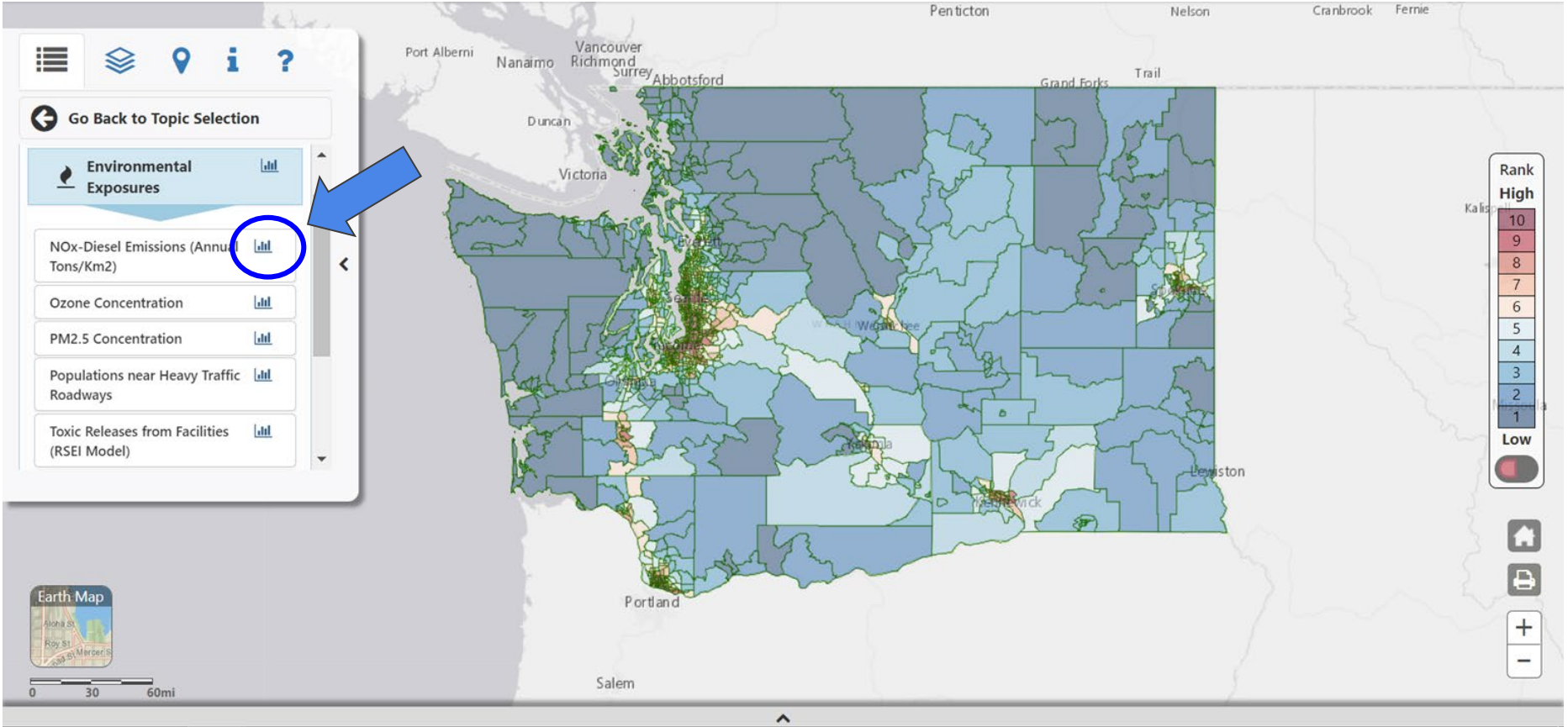
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Selection Criteria

View two measures together ?

Measure 1

Keyword Search

Section
 Environment

Topics
 Air Quality

Sub Topic
 Diesel Emissions

Measure
 NOx-Diesel Emissions (Annual Tons/K...

Filters

Geography
 Census Tract

Submit

Selection Criteria & Filters

Notes Table Chart Map

Diesel Emission Levels of NOx (A

Information and Resources About [Air Quality](#)

Derivation

The basis of the diesel NOx data is Wash AIRPACT-5 modeling domain, which use sources (e.g. non-point and mobile) wer emissions to individual grid-cells, based weighted spatial interpolation.

The census tracts and boundaries used i (water-only tracts) and that the boundar (shipping channels, ferry routes, and po containing all tracts by clicking the chart boundaries used in this analysis come fr bin/geo/shapefiles/index.php?year=201

The 2014 Comprehensive EI data will be <https://ecology.wa.gov/Air-Climate/>

The US EPA Spatial Surrogate Workbook <ftp://ftp.epa.gov/EmisInventory/surroga>

Selection Criteria

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Measure 1

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Measure
 NOx-Diesel Emissions (Annual Tons/K...

Filters

Geography
 Census Tract

Submit

Selection Criteria & Filters

Notes Table Chart Map

Diesel Emission Levels of NOx (Annual

Geography: Census Tract, Year: 2014

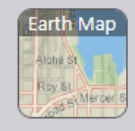
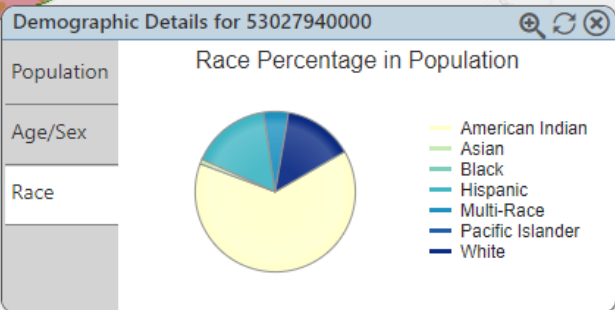
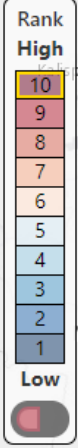
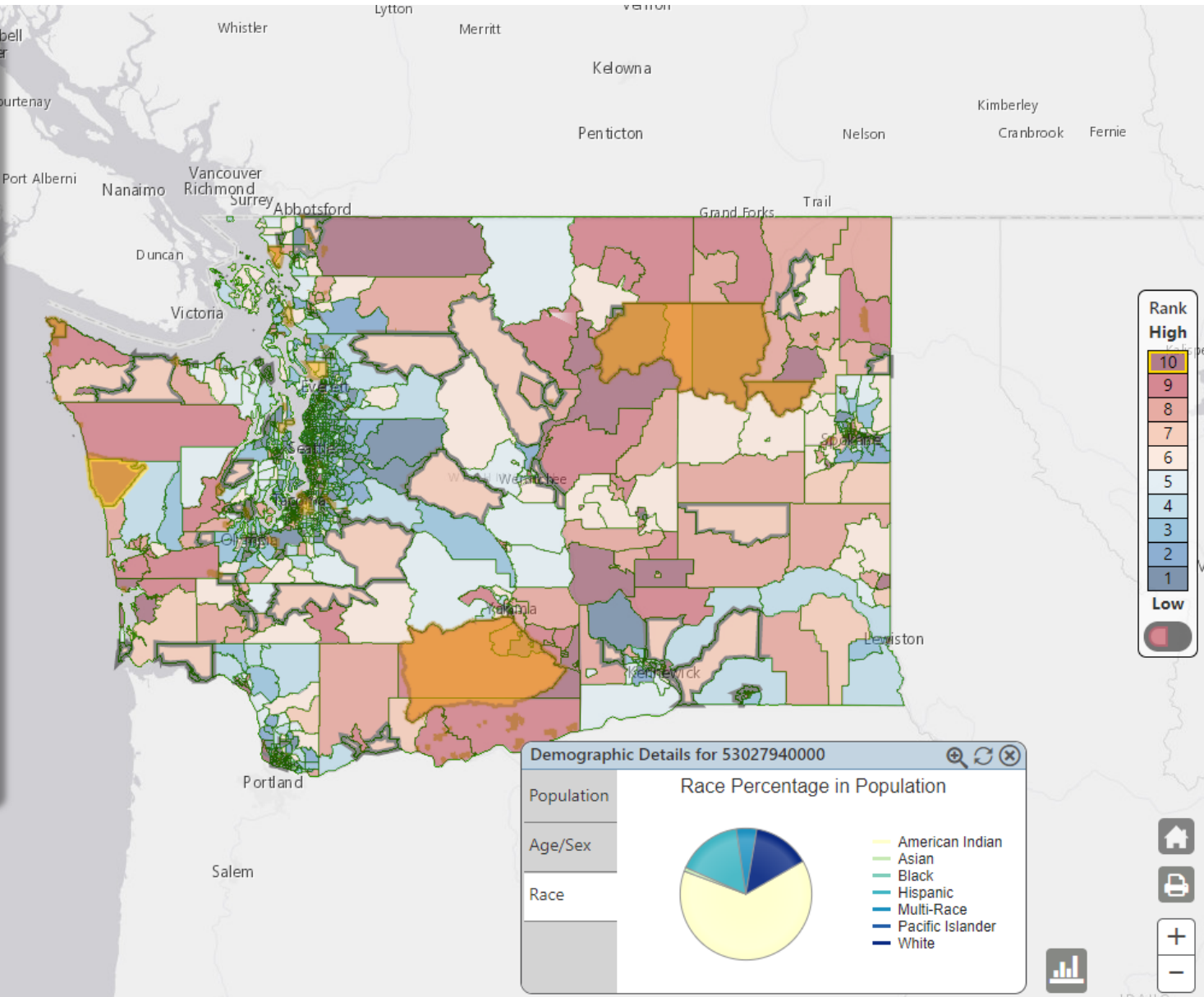
| County Name | Census Tract |
|-------------|--------------|
| n/a | State Total |
| Adams | 53001950100 |
| Adams | 53001950200 |
| Adams | 53001950300 |
| Adams | 53001950400 |
| Adams | 53001950500 |
| Asotin | 53003960100 |
| Asotin | 53003960200 |
| Asotin | 53003960300 |
| Asotin | 53003960400 |
| Asotin | 53003960500 |
| Asotin | 53003960600 |
| Benton | 53005010100 |
| Benton | 530050102015 |



Go Back to Topic Selection

- Environmental Health Disparities** Rank **3**
- Environmental Exposures** Rank **1**
- Environmental Effects** Rank **1**
- Socioeconomic Factors** Rank **10**

- ACS:Limited English (LEP) (%) Rank **4**
- No High School Diploma (%) Rank **9**
- People of Color (Race/Ethnicity) Rank **10**
- Population Living in Poverty <=185% of Federal Poverty Level (%) Rank **10**
- Transportation Expense Rank **10**





CONTACT US:

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ACCESS THE MAPPING TOOL: [HTTPS://FORTRESS.WA.GOV/DOH/WTN/WTNIBL/](https://fortress.wa.gov/doh/wtn/wtnibl/)

UW PROJECT WEBSITE: [DEOHS.WASHINGTON.EDU/WASHINGTON-STATE-ENVMAP](http://deohs.washington.edu/washington-state-envmap)

FRONT AND CENTERED PROJECT WEBSITE: [FRONTANDCENTERED.ORG/EJ-MAP/](http://frontandcentered.org/ej-map/)