How to Find Data for Your Entire Project Geography
Using the Draw Feature on EPA EJSCREEN
To
Describe and characterize the underserved community directly impacted by **disproportionate** environmental and/or public health harms and risks.

Dream.org
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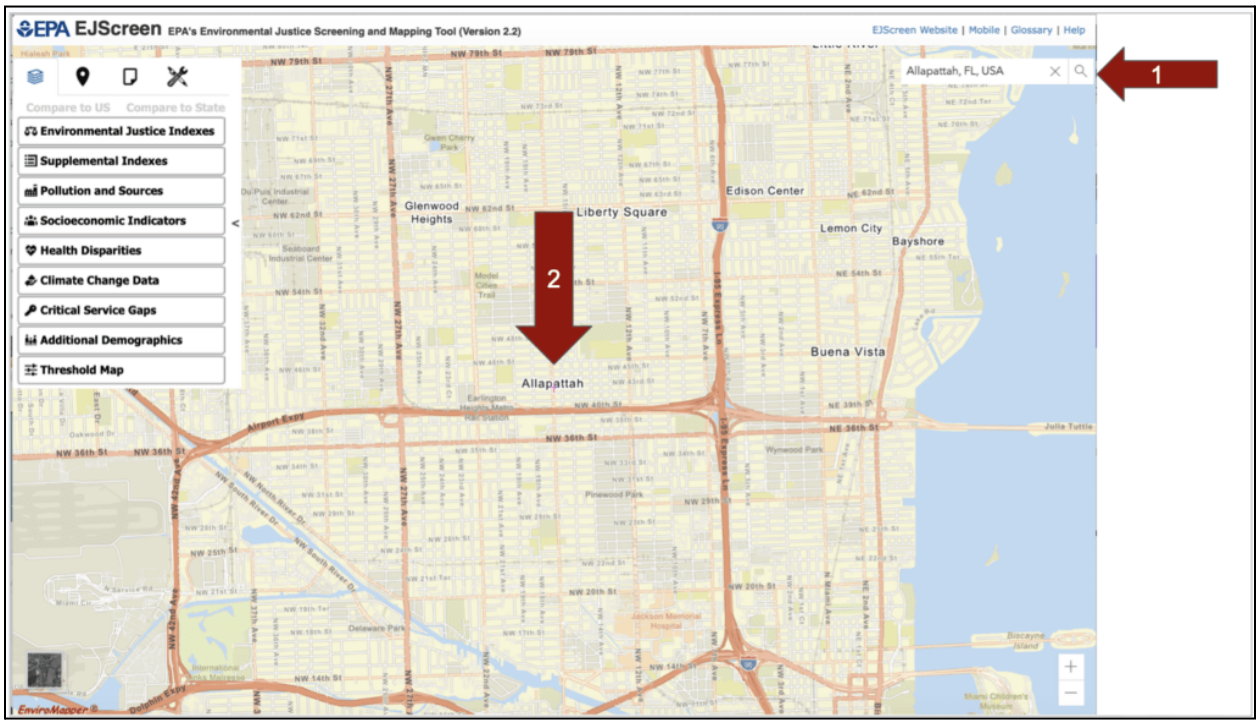
For this you will use EPA EJSCREEN's Standard Report. You use this source because it looks at community vulnerability through the lens of EPA-identified and relevant vulnerabilities to environmental harms and risks.

For this example, we will consider Allapattah as the geography and heat as the environmental harm or risk.

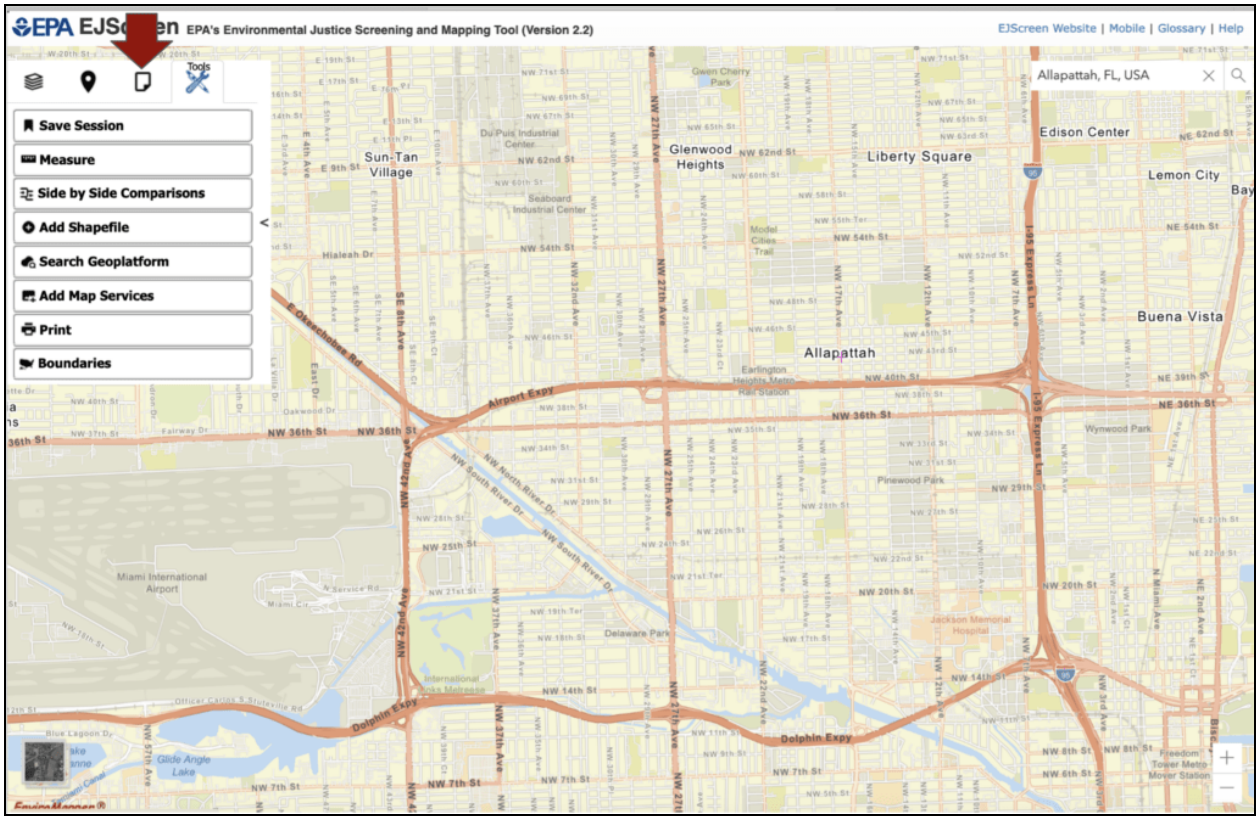
1. Enter your community into the search bar and click on the magnifying glass icon. We will enter Allapattah, Florida.

2. When we click the icon, this map appears, with a small pink plus sign signifying the location.

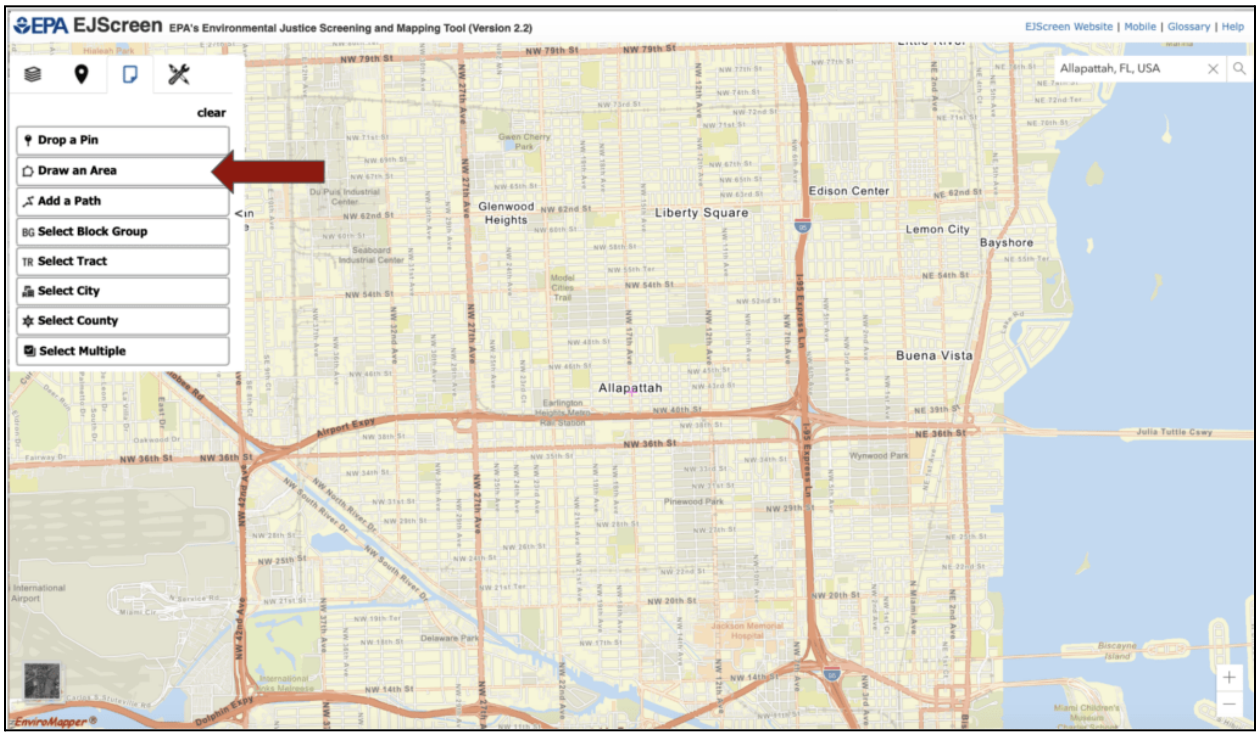


EPA EJ Screen allows you to draw your study area on the map. It combines the data from all of the census tracts within the shape you draw. Here are instructions on how to do that. It prevents the need for having to chart out data for a list of census tracts.

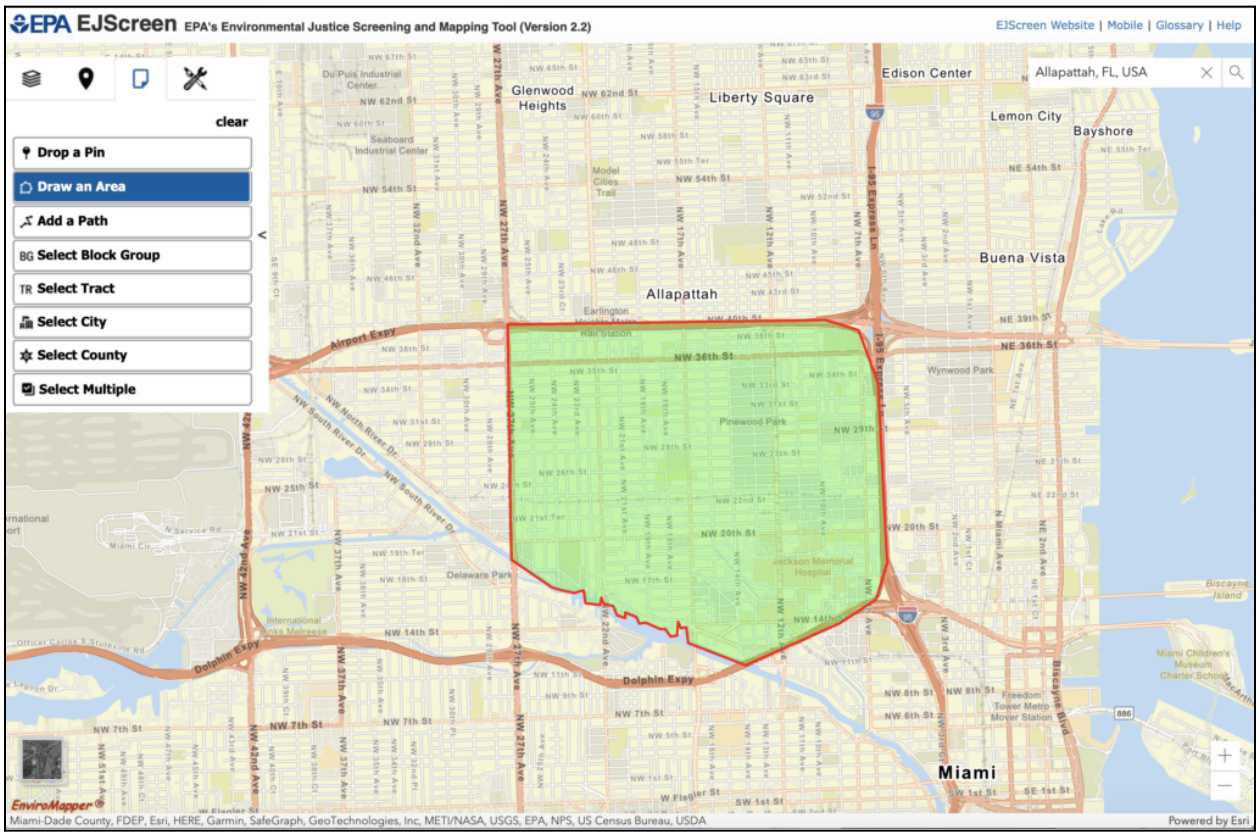
Click on the Reports Icon.


EPA EJScreen
EPA's Environmental Justice Screening and Mapping Tool (Version 2.2)
EJScreen Website | Mobile | Glossary | Help
Tools
Save Session
Measure
Side by Side Comparisons
Add Shapefile
Search Geoplatform
Add Map Services
Print
Boundaries
Allapattah, FL, USA
Sun-Tan Village
Glenwood Heights
Liberty Square
Edison Center
Lemon City
Buena Vista
Allapattah
Airport Expy
Dolphin Expy
NW 36th St
NW 27th Ave
NW 42nd Ave
NW 7th St
NW 14th St
NW 20th St
NW 25th St
NW 54th St
NW 62nd St
NE 36th St
Miami International Airport
Glide Angle Lake
Jackson Memorial Hospital
Freedom Tower Metro Mover Station

Click on Draw an Area in the dropdown menu that appears.

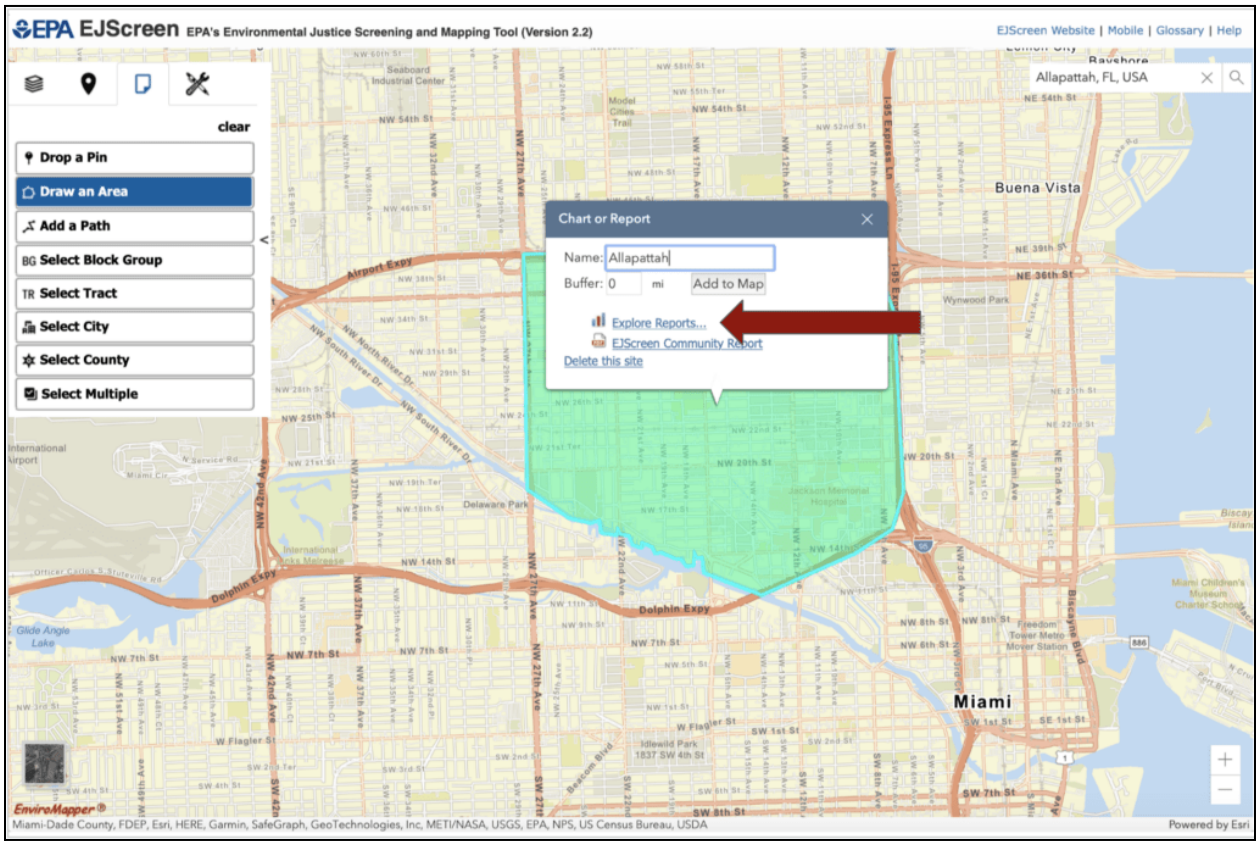


Draw the boundaries of the project area by following along the street borders, creating a polygon.



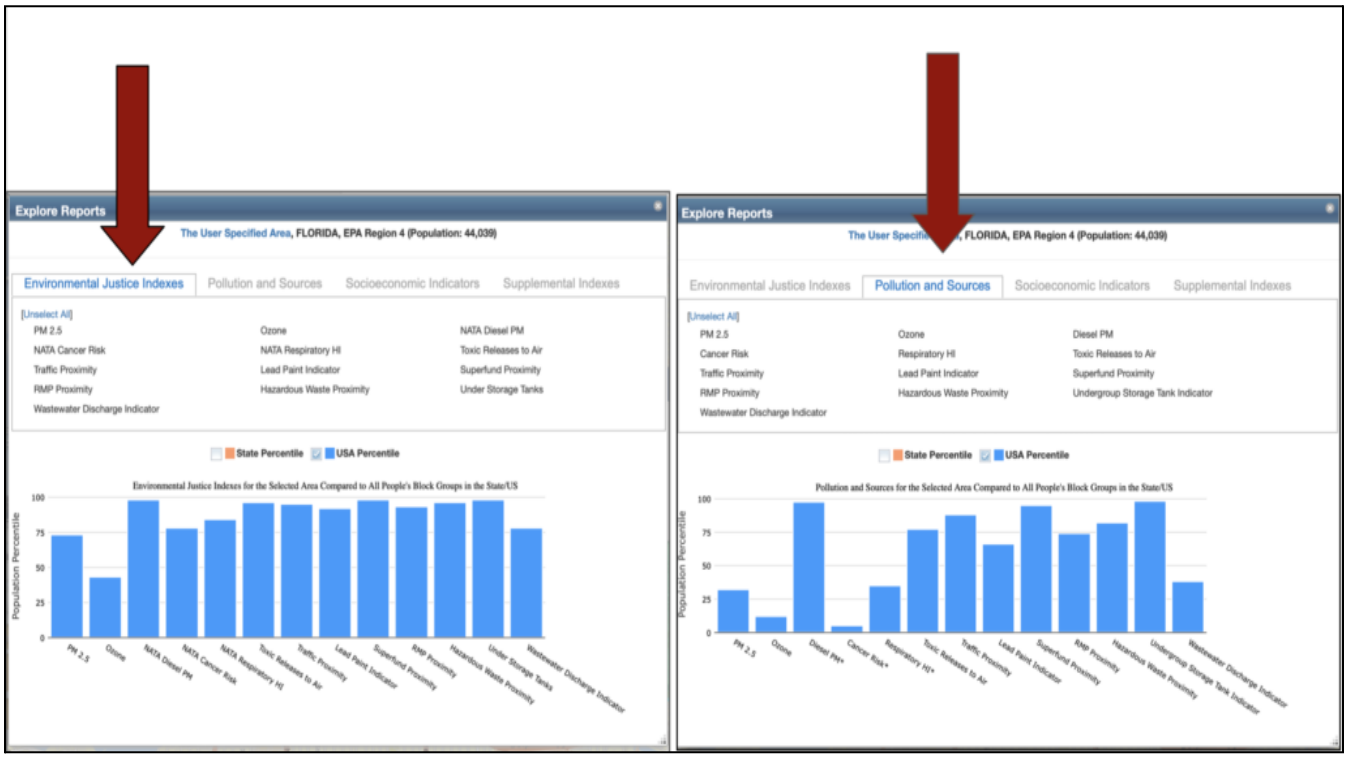
Click anywhere in the polygon and the Reports pop-up box will appear. Be sure to label the geographic area in the Name bar.

Click on Explore Reports.



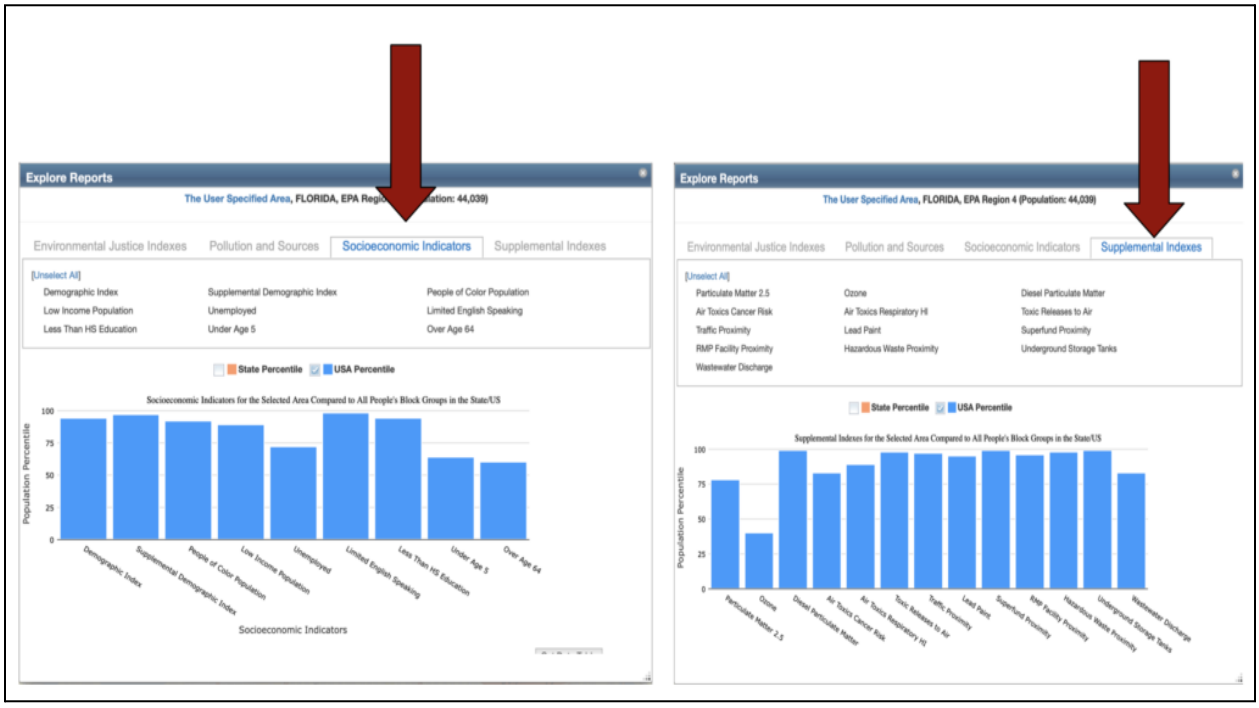
You will see 4 data categories in the tabs at the top.

- **Environmental Justice Indexes** combine socioeconomics with environmental harms
- **Pollution and Sources** are specific emvironmental indicators

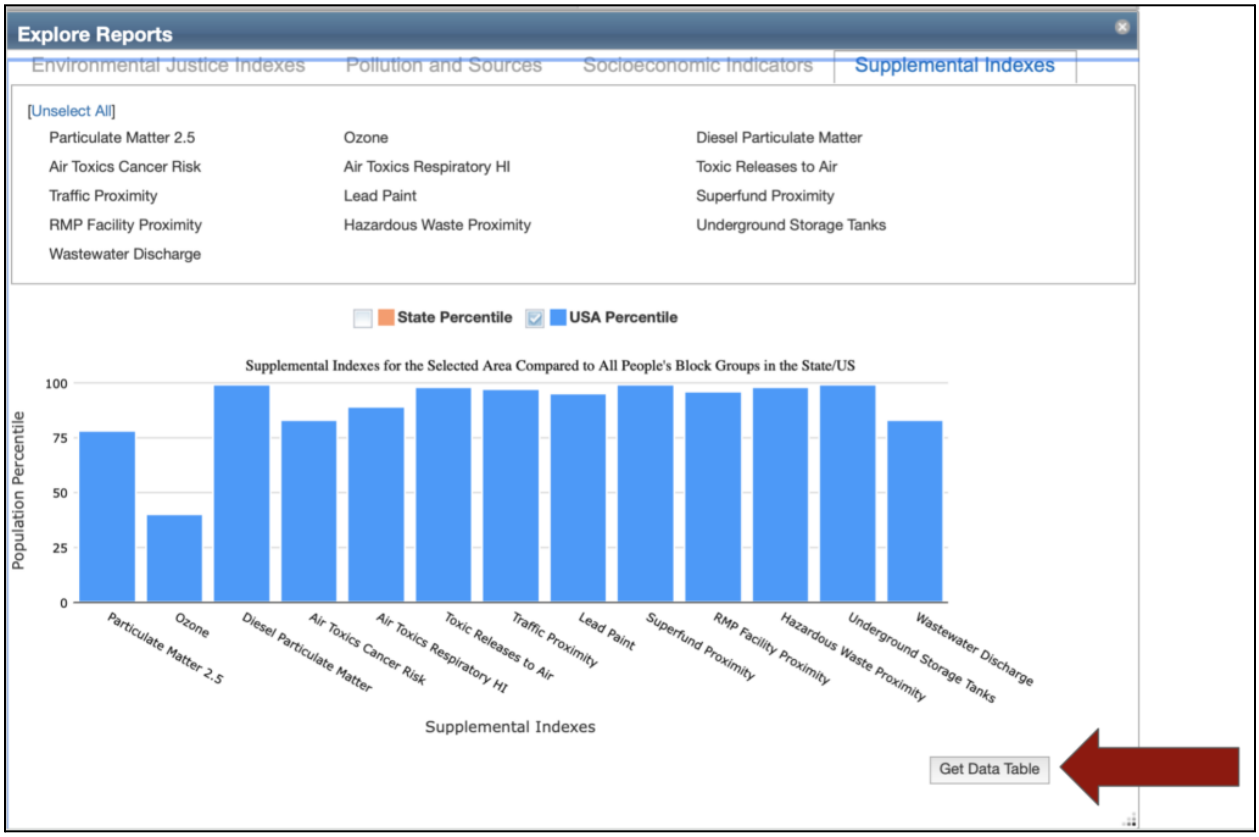


- **Socioeconomic Indicators** provide demographics
- **The Supplemental Demographic index averages** % Low Income, % Unemployed, % Limited English Speaking, % Less than High School Education, Low Life Expectancy
- The supplemental demographic index is then combined with a single environmental indicator, to display areas with the highest intersection between these socioeconomic factors and the environmental indicator.

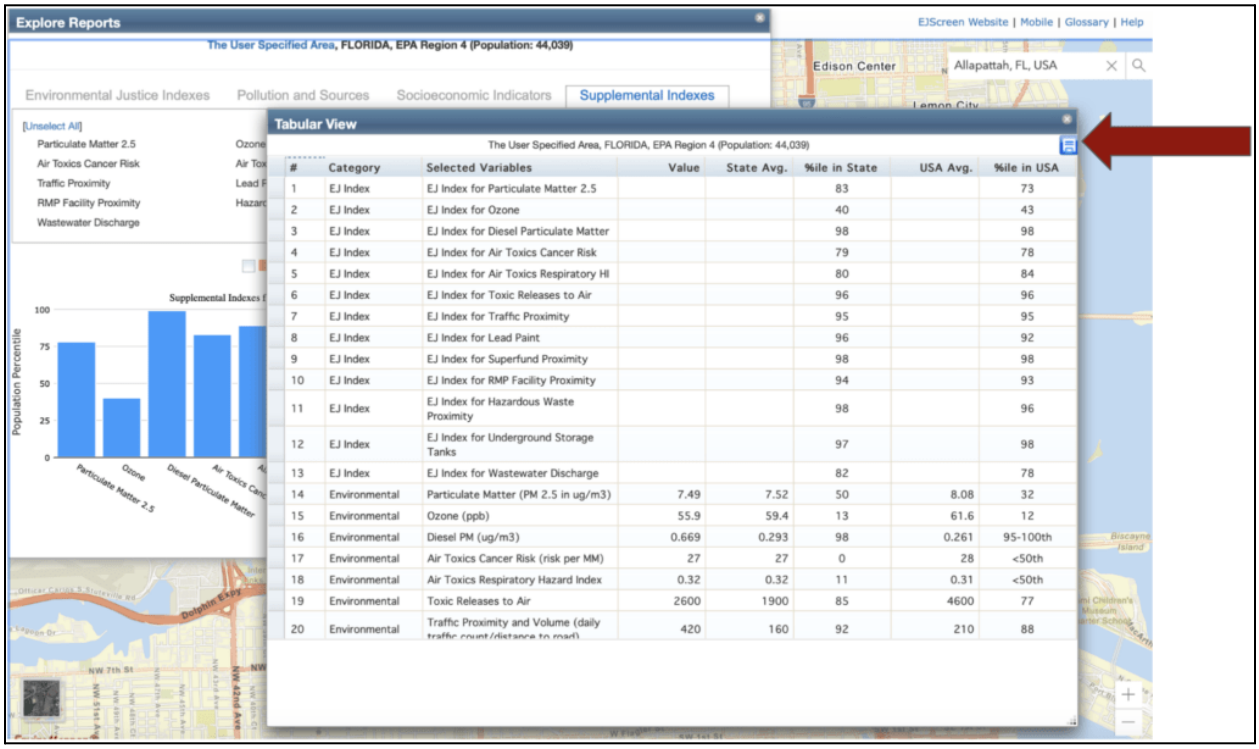
The supplemental indexes provide flexibility in the ways the data can be considered within EJScreen. They also increase EJScreen's functionality and may be more relevant for use in certain situations, such as awarding grants.



Click on Get Data Table.



Click on the Download Button in the upper right corner.



#	Category	Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
1	EJ Index	EJ Index for Particulate Matter 2.5			83		73
2	EJ Index	EJ Index for Ozone			40		43
3	EJ Index	EJ Index for Diesel Particulate Matter			98		98
4	EJ Index	EJ Index for Air Toxics Cancer Risk			79		78
5	EJ Index	EJ Index for Air Toxics Respiratory HI			80		84
6	EJ Index	EJ Index for Toxic Releases to Air			96		96
7	EJ Index	EJ Index for Traffic Proximity			95		95
8	EJ Index	EJ Index for Lead Paint			96		92
9	EJ Index	EJ Index for Superfund Proximity			98		98
10	EJ Index	EJ Index for RMP Facility Proximity			94		93
11	EJ Index	EJ Index for Hazardous Waste Proximity			98		96
12	EJ Index	EJ Index for Underground Storage Tanks			97		98
13	EJ Index	EJ Index for Wastewater Discharge			82		78
14	Environmental	Particulate Matter (PM 2.5 in ug/m3)	7.49	7.52	50	8.08	32
15	Environmental	Ozone (ppb)	55.9	59.4	13	61.6	12
16	Environmental	Diesel PM (ug/m3)	0.669	0.293	98	0.261	95-100th
17	Environmental	Air Toxics Cancer Risk (risk per MM)	27	27	0	28	<50th
18	Environmental	Air Toxics Respiratory Hazard Index	0.32	0.32	11	0.31	<50th
19	Environmental	Toxic Releases to Air	2600	1900	85	4600	77
20	Environmental	Traffic Proximity and Volume (daily traffic count/distance to road)	420	160	92	210	88

The data for the "User Specified Area" you drew onto the map appears. The total population is in the title bar.

Proceed to the Demographics and look for the items on the vulnerability list that you can find: the **elderly (Population over Age 64)**, **very young children (Population under Age 5)** , infirm, **poor (Low Income Population)**, and socially isolated people, and those who are pregnant. This is a national competition, so you will use the Value column and the %-ile in USA column.

The **People of Color Population** is also heat vulnerable according to the NIH article *Residential and Race/Ethnicity Disparities in Heat Vulnerability in the United States*, which states, "Historically redlined and contemporary CEJST disadvantaged census tracts and communities of color were found to be associated with increased vulnerability to heat."

Source Cited: Manware M, Dubrow R, Carrión D, Ma Y, Chen K. Residential and Race/Ethnicity Disparities in Heat Vulnerability in the United States. Geohealth. 2022 Dec 1;6(12):e2022GH000695. doi: 10.1029/2022GH000695. PMID: 36518814; PMCID: PMC9744626.

FLORIDA, EPA Region 4 (Population: 44,039)

#	Category	Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
27	Demographic	Demographic Index	78%	39%	95	35%	94
28	Demographic	Supplemental Demographic Index	35%	15%	98	14%	97
29	Demographic	People of Color Population	95%	45%	92	39%	92
30	Demographic	Low Income Population	61%	33%	89	31%	89
31	Demographic	Unemployed	8%	5%	74	6%	72
32	Demographic	Limited English Speaking Households	49%	7%	98	5%	98
33	Demographic	Population with Less Than High School Education	36%	11%	96	12%	94
34	Demographic	Population under Age 5	6%	5%	70	6%	64
35	Demographic	Population over Age 64	18%	23%	50	17%	60

This information can be written as:

Populations in the community that are vulnerable to heat include 61% of the population (89th %-ile in the US) that is low income, 6% of the population (64th %-ile) that is under 5 years old, 18% of the population that is over Age 64, and 95% of the population (92nd %-ile the US) that is comprised of people of color. (1)(2)(3)

Citations:

(1) EPA webpage, *Climate Adaptation – Extreme Heat and Health (Accessed 1.20.2023)* *https://www.epa.gov/arc-x/climate-adaptation-extreme-heat-and-health#:~:text=Those%20most%20vulnerable%20to%20extreme,particular%20risk%20during%20heat%20waves*.

(2) Manware M, Dubrow R, Carrión D, Ma Y, Chen K. *Residential and Race/Ethnicity Disparities in Heat Vulnerability in the United States.* Geohealth. 2022 Dec 1;6(12):e2022GH000695. doi: 10.1029/2022GH000695. PMID: 36518814; PMCID: PMC9744626.

(3) Allapattah project geography created using the EPA EJSCREEN Drawing Tool (Accessed Mo.Day.Year) https://ejscreen.epa.gov/mapper/