

Justice40 Data Attribution Guide Training

Leah Booher, MSLIS
lbooher2016@gmail.com

Updates (New/Altered Slides Teal Background)

- CEJST Data and Map Updates
 - Links to and more detailed description of data available for download
- (New) DOE Energy Justice Dashboard (BETA) Office of Economic Impact and Diversity
 - RAC Justice40 MyMap with Downloadable DOE Data from 2022_09_22 Data
 - [RAC Justice40 Energy Map](#)
- Justice 40 Data Attribution Tool
 - Minority Serving Institution (MSI) status is from the US Department of Education, 2020 Eligibility Matrix
 - ENERGY JUSTICE DASHBOARD (BETA) SOURCES Section of: [LINK](#)
- Grants Resources and Informational Resources about Grants

What is Justice40?

On January 27, 2021, President Biden signed Executive Order 14008, which tasked a group of executive branch officials with developing recommendations for ensuring that 40% of the overall benefits of federal investments in climate-related programs flow to disadvantaged communities – the Justice40 Initiative (J40I). The J40I does not include specifically earmarked funds but is rather a "whole-of-government approach" to advancing towards environmental justice and economic inclusion.



Sec. 223. Justice40 Initiative. (a) Within 120 days of the date of this order, the Chair of the Council on Environmental Quality, the Director of the Office of Management and Budget, and the National Climate Advisor, in consultation with the Advisory Council, shall jointly publish recommendations on how certain Federal investments might be made toward a goal that 40 percent of the overall benefits flow to disadvantaged communities. The recommendations shall focus on investments in the areas of clean energy and energy efficiency; clean transit; affordable and sustainable housing; training and workforce development; the remediation and reduction of legacy pollution; and the development of critical clean water infrastructure. The recommendations shall reflect existing authorities the agencies may possess for achieving the 40-percent goal as well as recommendations on any legislation needed to achieve the 40-percent goal.

What is Justice40?

- [Initial Justice40 Initiative Presentation](#)
 - A precursor to this training in the linked presentation above which goes into more detail on the Justice40 Initiative and the RAC Justice40 Data Attribution Guide.
- [RAC Justice40 Data Attribution Guide](#)
 - This presentation focuses more specifically on the data contributing to Justice40 categories to allow further exploration into the Justice40 data.
 - Additionally, there is further information on data available from contributing agencies.

Training Information

- **WARNING: When clicking links they may open in the same window as this presentation in your browser. Right Clicking the link and selecting “Open in another Tab/Window” may avoid this problem**
- This training was last reviewed on **10/11/2022**. Prior Version: **9/14/2022**. This presentation links to resources managed by federal agencies. Prior to use of data, check usage rights and relative data documentation to ensure correct use and interpretation of data.
- This slide deck contains live links to resources and is intended as a comprehensive tool for review to accompany the RAC Justice40 Data Attribution Guide. There are additional resources linked to assist you.
- [9.8.2022 Justice40 Presentation](#)
- [9.14.2022 Justice 40 Data Attribution Guide Training](#)

Table of Contents by Slide Number

1. Overview (7)
 - a. CEJST Map (10)
 - b. RAC Justice40 Data Attribution Guide (16)
 - c. DOE Energy Justice Dashboard (BETA) (19)
 - d. Grants Resources (33)
2. Data Usage Tips (35)
3. Individual Datasets determining the Justice40 Categories (43)
4. Breakdown of Datasets by Agency (48)
 - a. U.S. Census Bureau (49)
 - b. Federal Emergency Management Agency (55)
 - c. Office of Energy Efficiency and Renewable Energy (61)
 - d. Centers for Disease Control and Prevention (67)
 - e. U.S. Department of Housing and Urban Development (76)
 - f. Environmental Protection Agency (79)
 - i. Disclaimer: Air Toxics Assessment not included in Justice40 Category Calculations
 - g. Department of Transportation (102)
5. What if I cannot find data for my area? (106)
6. Additional Resources (107)

Overview

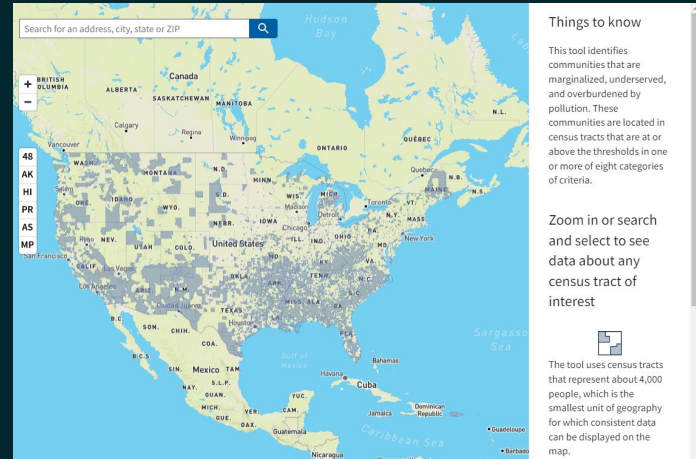
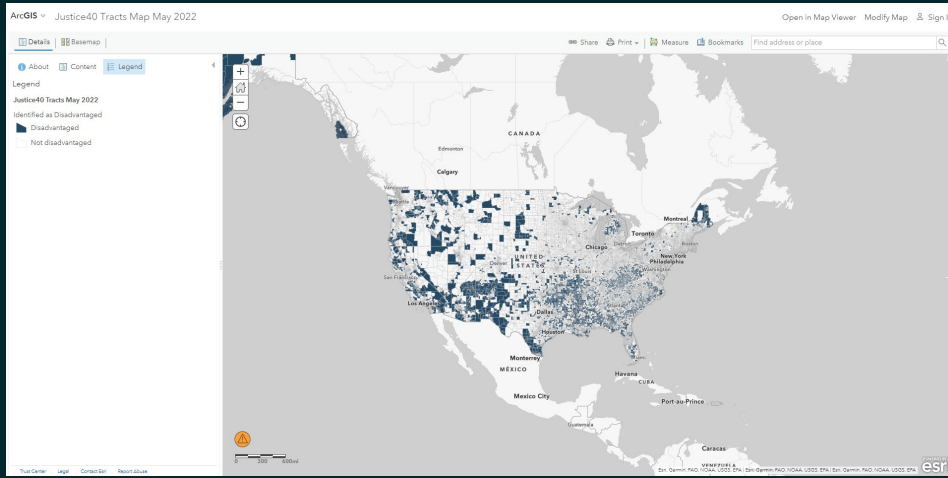
What is GIS?

- Many of the datasets that factor into Justice40 categories are available through GIS tools.
- A geographic information system (GIS) is a system that creates, manages, analyzes, and maps data. [Source](#)
- **GIS enables us to put What (data) and Where (location) together**
- GIS is important for the Justice40 Initiative as it enables us to combine data to assess what areas are in a Justice40 category.

How can I tell if I am in a Justice40 category?

You can currently utilize the following maps:

1. [Justice40 Census Tracts](#)
2. [Climate and Economic Justice Screening Tool](#)



CEJST Map

What is the Climate and Economic Justice Screening Tool Justice 40 (CEJST) Map?

- The purpose of the tool is to **help Federal agencies identify disadvantaged communities** that are marginalized, underserved, and overburdened by pollution.
- The current version of the tool provides **socioeconomic, environmental, and climate information** to inform decisions that may affect these communities.
- The tool identifies disadvantaged communities through **publicly-available, nationally-consistent datasets**.
- The current version of the tool is in a public beta form and will be updated based on feedback and research.
- [Climate and Economic Justice Screening Tool Justice 40 Map](#)

Justice40 Tools

- [Data Methodology from CEJST Map](#)
- [Climate and Economic Justice Screening Tool Justice 40 Map](#)
- [Justice 40 Data Attribution Spreadsheet](#)

CEJST Data Available for Download

- Updated Page with the Links Below: [LINK](#)
- Communities List Data
 - XLSX
 - CSV
- Shapefile
- How to Use the List of Communities
 - Link: [How to Use the List of Communities](#)
- Technical Support Document
 - Link: [PDF](#)

Data Limitations

- The **United States and the District of Columbia** currently have **25/25** (100%) possible parameters to determine Justice40 categories.
- In the CEJST, **Puerto Rico** currently has only **6/25** (~25%) and the **American Samoa and Northern Mariana Islands** currently has only **4/25** (~16%) of possible parameters to determine Justice40 categories.
- These datasets were collected in varying time frames. Please see the year column in [the RAC Justice40 Data Attribution Guide](#) for more information.
- See Bottom of this Page for more information: [LINK](#)

Data Used to Determine Eligibility for Justice40 Categories

Category	EPA	NATA/ EPA	ACS	HUD	DOT	EERE	OAR	FEMA	CDC
Reduction and remediation of legacy pollution	Yes		Yes						
Critical clean water and wastewater infrastructure	Yes		Yes						
Affordable and sustainable housing			Yes	Yes					
Clean transit	Yes	Yes	Yes		Yes				
Clean energy and energy efficiency	Yes		Yes			Yes	Yes		
Climate change			Yes					Yes	
Health burdens			Yes						Yes
Training and workforce development			Yes						

What is the RAC Justice40 Data Attribution Guide?

- The RAC Justice40 Data Attribution Guide is a tool that breaks down the composition of the Justice40 categories.
- This allows people, organizations, and anyone interested in the initiative to understand the factors determining census tracts that are disadvantaged.

RAC Justice40 Data Attribution Guide

- The Guide has five tabs:
 - Data Key
 - Extra Links
 - Description of columns and their content
 - Agencies by Category
 - Breakdown by Agency
 - Composition of Categories in Justice40 Initiative
 - Full Data Summary
 - The complete list of datasets that factor into Justice40 Categories with:
 - Geographies included
 - Data URLs
 - Individual Attributes that compose the categories
 - Puerto Rico Data Summary
 - Only the Puerto Rico CEJST Data
 - American Samoa/Northern Mariana Islands Summary
 - Only the American Samora/Northern Mariana Islands Data

RAC Justice40 Demo

[RAC Justice40 Data Attribution Spreadsheet](#)

DOE Energy Justice Dashboard (BETA)

Energy Justice Dashboard

- The Energy Justice Dashboard (BETA) is a pilot data visualization tool that displays DOE-specific investments in communities across the country
- The Dashboard displays
 - DOE cost data
 - Grants
 - Cooperative agreements
 - Contracts
- Data from more than twenty-five DOE program offices, for the fiscal years 2019 to present.

Office of Environmental Management (EM)

- The U.S. Department of Energy's (DOE) Office of Environmental Management (EM) mission is to:
 - Address the nation's Cold War environmental legacy from:
 - five decades of nuclear weapons production
 - government-sponsored nuclear energy research.
- This legacy includes:
 - dangerous radioactive sites with large amounts of radioactive wastes
 - spent nuclear fuel (SNF)
 - excess plutonium and uranium
 - thousands of contaminated facilities
 - contaminated soil and groundwater
- EM has the responsibility of cleaning up 107 sites across the country with progress in nearly every area of nuclear waste cleanup and completed cleanup at 91 of these sites.
- More information: [LINK](#)

Advanced Research Projects Agency - Energy (ARPA-E)

- The Advanced Research Projects Agency-Energy (ARPA-E) advances high-potential, high-impact energy technologies that are too early for private-sector investment.
- ARPA-E awardees are developing entirely new ways to generate, store, and use energy.
- More Information: [LINK](#)

National Nuclear Security Administration (NNSA)

- NNSA is a semi-autonomous agency within the U.S. Department of Energy responsible for enhancing national security through the military application of nuclear science.
- NNSA
 - maintains and enhances the safety, security, and effectiveness of the U.S. nuclear weapons stockpile
 - works to reduce the global danger from weapons of mass destruction
 - provides the U.S. Navy with safe and militarily effective nuclear propulsion
 - responds to nuclear and radiological emergencies in the United States and abroad
- More Information: [LINK](#)

Department of Energy Office of International Affairs

- The Office of International Affairs coordinates Department efforts to ensure a unified voice in our international energy policy.
- We work closely with:
 - Federal departments and agencies
 - Private sector
 - Other nations
 - International organizations
- More Information: [LINK](#)

Office of Artificial Intelligence & Technology (AITO)

- Mission
 - Coordinate responsible and trustworthy artificial intelligence (AI) governance and capabilities.
 - Advocate for program offices
 - Provide advice on trustworthy AI/ML strategies
 - Expand public, private and international partnerships, policy and innovations
- More Information: [LINK](#)

Energy Justice Dashboard

Download the **full dataset** for the Energy Justice Dashboard (BETA).

FUNDING CATEGORY

- Contract
- Cooperative Agreement
- Grant

DOE PROGRAM OFFICE

All

PLACE OF PERFORMANCE

All

DACS/TRIBAL LANDS

No Filter

MINORITY SERVING INSTITUTION

No Filter

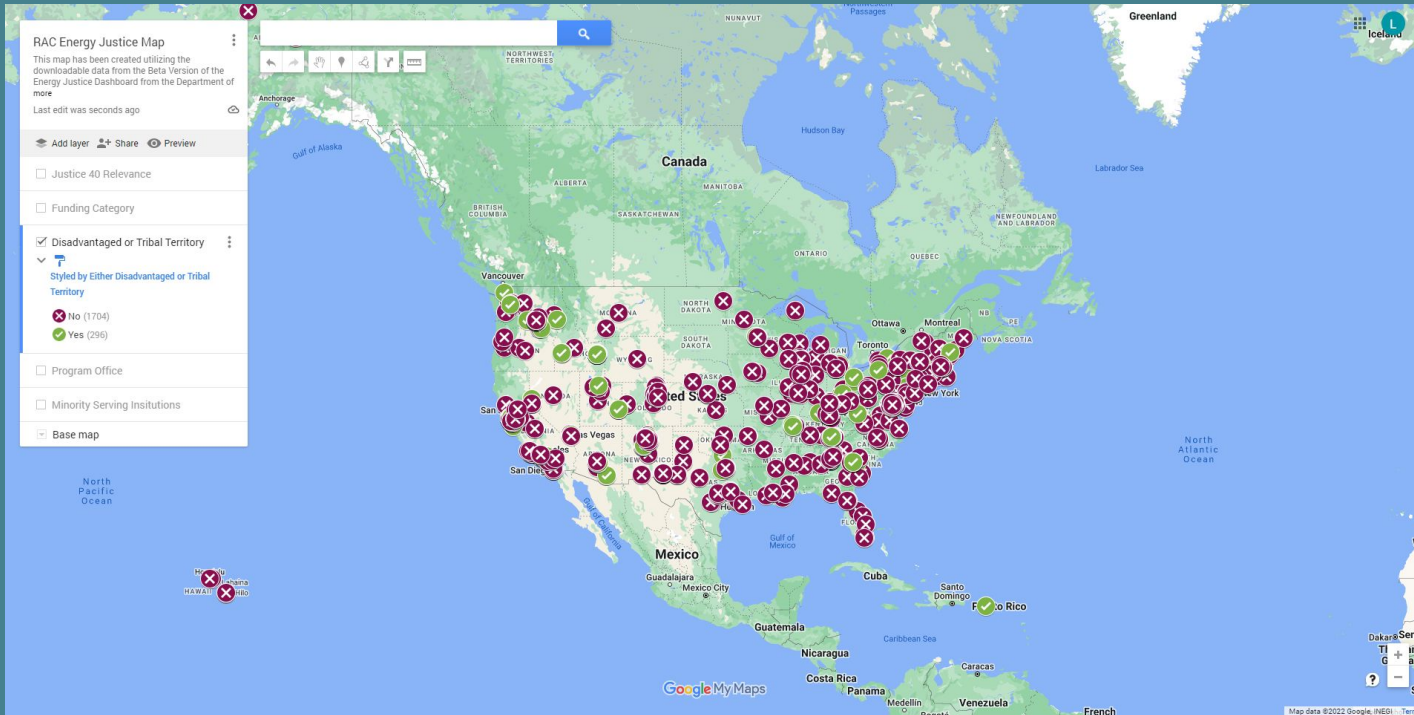
Select an Equity Layer

Map showing the distribution of energy justice projects across the United States and surrounding regions. The map includes a legend for Disadvantaged Communities (DACs) and Tribal Lands, and a list of states on the left side.

State	Count
AK	4
HI	20
PR	63
GU	2
CA	3337
OR	2853
WA	571
MT	1454
ND	11411
SD	17
WY	4

RAC Map Made with Downloadable Data: [LINK](#)

- The RAC Energy Justice Map made with data available for download has several layers that can be toggled on and off to compare several factors.



Energy Justice Dashboard

- The Energy Justice Dashboard (BETA) uses:
 - Environmental indicators from the U.S. Environmental Protection Agency's iconic EJSCREEN tool (Version 1.0)
 - Energy burden using data from DOE's Low-Income Energy Affordability Data (LEAD) Tool
 - US Department of Education, 2020 Eligibility Matrix. Retrieved May 18, 2021
 - US Census Tract Boundaries (2010)
 - Provisional COVID-19 Death Counts in the United States by County Retrieved September 14th, 2022 ([LINK](#))
- Link to the Tool: [LINK](#)
- The Data is available directly for download at: [LINK](#)
 - **WARNING: The download link on this page is a direct download link and will directly download the file onto your device**

Energy Justice Dashboard Linked Resources

- **WARNING: Some of these are direct download links, it will download directly to your computer if you click them (indicated with *)**
- DOE Dashboard FAQ PDF: [LINK](#)
- DOE BETA Features PDF: [LINK](#)
- Scroll to bottom of this page: [LINK](#)
 - Also Available:
 - Tribal lands Shapefile*
 - US Territories and DACs Shapfile*
 - DAC stands for Disadvantaged Community
 - DAC Data for Census Tracts and Territories*

Energy Justice Dashboard DAC Definition

- The DOE working definition for DACs includes data for thirty-six (36) indicators collected at the census tract level that each represent a distinct dimension of disadvantage.
- These indicators can be grouped across the following categories
 - Fossil Dependence (2)
 - Energy Burden (5)
 - Environmental and Climate Hazards (10)
 - Vulnerability (socioeconomic, housing burden, transportation burdens, etc.) (19)
- Additional information about the DOE DACs definition can be found in the Energy Justice Dashboard (BETA) Resource Area and on the Justice40 Initiative page located at [LINK](#).

Energy Justice Dashboard MSI Definition

- A minority serving institution (MSI) is an educational entity recognized by:
 - Office of Civil Rights (OCR)
 - U.S. Department of Education
 - OCR's Department of Education U.S. accredited postsecondary minorities institution list
- The list used for the Energy Justice Dashboard (BETA) is based on 2020 data from the U.S. Department of Education.
 - This data includes institutions that qualify for MSI funding and those receiving MSI funding.

US Department of Education Eligibility Matrix

- Information about 2022 Department of Education Eligibility Matrix: [LINK](#)
 - Eligibility Matrix Available for download
 - 2007 to present with Excel and PDF Format
 - 2005-2006 with MS Word and PDF Format
- Data comes from the Office of Postsecondary Education: [LINK](#)

Grants Resources

Grants Resources

- Grants.gov Youtube Channel: [LINK](#)
- Grants.gov Community Blog: [LINK](#)
- Grants Learning Center: [LINK](#)
- Grants.gov XML Extract File Webpage: [LINK](#)
- EERE Funding Opportunities Page (Links through to other resources): [LINK](#)
- EERE Funding Opportunities Exchange: [LINK](#)
- Federal Service Desk Knowledge Base Videos: [Link](#)
- Federal Service Desk Knowledge Base: [LINK](#)
- Sam.gov: [LINK](#)

Data Usage Tips

Data Anonymization

- Data from government agencies may be limited or only available for a larger geographic area in some areas to insure anonymity of those surveyed.
- This will most likely be disclosed in the data methodology/practices/documentation.

Data Back-ups

- Backing up your data in several forms is a good idea and can be done several ways:
 - Save periodically to avoid loss of data if working in a local disk only
 - Can be saved to a cloud or 1+ external hard drives
 - Back-up to a cloud server or several (iCloud, Google Drive, Dropbox etc.)
 - In Google drive make a copy of the document under the File menu
 - Alternatively you can download the file and name it using a File Name Suggestion Naming Convention down below (recommended for organization)
- When working with a cloud data storage method
 - Create a folder which contains all other subfolders
 - Ex. Master Folder contains all other folders
 - This can enable the simultaneous download of all data from the cloud without the need to download files separately
- Maintain several back-ups (this can potentially be automated)
 - Date your back-ups and save many iterations
 - Total loss of data is devastating to avoid this back up data in one or more of the following methods on a schedule which can be:
 - Monthly
 - Weekly
 - Bi-weekly
 - Daily at a set time
- File Name Suggestions
 - If possible standardize the name of your backups
 - Xx.xx.xxxx Computer Backup
 - Google Drive Backup xx.xx.xxxx
 - Xx.xxxx Data Back-up
 - Xx.xx.xxxx Spreadsheet name backup
 - Project Name.Version_X

Google Drive

1. **Google drive saves your changes iteratively as you go**
2. To access this open the document/project in question
3. Click File
4. Scroll down to version history
5. Click on See version history
 - ALTERNATIVE: Control + Alt + Shift + H
6. Locate the desired previous version
7. Restore the version*

*You can name a version in this menu and not restore it to come back to it later

*You can also make a copy of the previous version directly from this menu

Creative Commons Licenses

- CC Licenses
 - [Creative Commons Licenses](#)
 - Disclaimer: There may be other licenses or usage restrictions conveyed in other means with a dataset
- The dataset may have requirements such as:
 - A specific crediting phrase which must be included
 - Limited use (not commercial)
- When in doubt:
 - Keep track of every data source you might use
 - URLs
 - Names
 - Parameters
 - Anything else that may be useful
 - Include this in grant proposals
 - Credit the data source in one or all of the above:
 - Bibliography
 - Report of Findings
 - URL
 - Other means (potentially included in the literature accompanying the data)

Data visualization

- Data visualization is a larger discipline/skill with many specializations, programs, and applications.
- General Tips:
 - When graphing data try to make it easy to understand with clear labels.
 - Use x-axis and y-axis scales that make sense for your data
 - When working with maps be careful to make your materials legible and easy to understand.
 - Include a legend and/or scale if possible when mapping information.
 - When scripting your data analysis or visualization, every time you run it check that it is working correctly.

Data Types

- There are many data types and file formats.
- Some formats are not compatible with all softwares.
- When working with your data be aware of the software to which you have access to and the file formats that are compatible with them.
- File size limitations may also be a problem.
- The documentation for the software you are using (Excel, Google Sheets, Canva, ArcGIS, etc.) will most likely contain this information.
- [File Format Guide](#)

Data Access

- Datasets may require you to contact the owner of the dataset.
- This could be, but is not limited to, commercial or government datasets.
- This will vary based on the dataset, if it has the option “Contact the owner” of the dataset I recommend the following:
 - **State your affiliation** (NGO, corporation, working individually, student, etc.)
 - **State why you are interested in the dataset** (school project, community mapping, use in a federally funded grant)
 - Commercial use may be important, mention if you will potentially earn income from the use of this data
 - **The scope of the dataset** you need
 - ex. The vaccine providers in the following zip codes followed by a list
 - ex. The entire state of X by county for number of people who own hamsters
 - **Preferred File Format**
 - State size limitations if applicable
 - State file formats you cannot receive and formats you can receive
 - **Request if possible a follow-up email within a reasonable time to receive confirmation:**
 - Thank you, but no this is unavailable
 - Here is the data you requested
 - A timeframe in which the data can be given to you
 - A follow-up with some possible restrictions for the data you will receive
 - ex. No personal information, No addresses, etc.
 - **Respond appropriately**, promptly, and in a professional manner

Individual datasets determining the Justice40 Categories

The datasets in the Justice40 categories

- The datasets that are in the Justice40 categories are a combination of GIS interactive tools and downloadable data.
- Some of these datasets are not available in all geographies.

Agencies contributing data to Justice40 Eligibility

- Environmental Protection Agency
- Census Bureau
- Department of Housing and Urban Development
- Department of Transportation
- Office of Energy Efficiency and Renewable Energy
- Office of Air and Radiation (Environmental Protection Agency)
- Federal Emergency Management Agency
- Centers for Disease Control

List of datasets specifically contributing to the Justice 40 Categories

[RAC Justice40 Data Attribution Guide](#)

Go to Full Data Summary Tab

Data Used to Determine Eligibility for Justice40 Categories

Category	EPA	NATA/ EPA	ACS	HUD	DOT	EERE	OAR	FEMA	CDC
Reduction and remediation of legacy pollution	Yes		Yes						
Critical clean water and wastewater infrastructure	Yes		Yes						
Affordable and sustainable housing			Yes	Yes					
Clean transit	Yes	Yes	Yes		Yes				
Clean energy and energy efficiency	Yes		Yes			Yes	Yes		
Climate change			Yes					Yes	
Health burdens			Yes						Yes
Training and workforce development			Yes						

Breakdown of Datasets by Agency

U.S. Census Bureau

American Community Survey and The Census

- The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis.
- Information from the survey generates data that help determine how more than \$675 billion in federal and state funds are distributed each year.
- The American Community Survey (ACS) helps local officials, community leaders, and businesses understand the changes taking place in their communities.
- Conducted every month, year, and ten-year census.

American Community Survey and The Census

- Years 2000-2021 available in the data.census.gov portal
- Data availability will depend on topic of inquiry.
- If your address was selected for the American Community Survey, you are legally obligated to answer all the questions, as accurately as you can.
 - The relevant laws are Title 18 U.S.C Section 3571 and Section 3559, which amends Title 13 U.S.C. Section 221.
- Response to the survey is required by law because the American Community Survey is part of the decennial census, replacing the "long form" that previously was sent to a percentage of households once every 10 years.

American Community Survey and The Census

- American Community Survey
 - Conducted every month, every year
 - Sent to a sample of addresses (about 3.5 million) in the 50 states, District of Columbia, and Puerto Rico
 - Asks about topics not on the 2020 Census, such as:
 - Education
 - Employment
 - Internet access
 - Transportation
 - Provides current information to communities every year.
 - Provides local and national leaders with the information for
 - Programs
 - Economic development
 - Emergency management
 - Understanding local issues and conditions
- Decennial Census
 - Conducted every ten years
 - Counts every person living in the 50 states, District of Columbia, and the five U.S. territories
 - Asked a shorter set of questions such as
 - Age
 - Sex
 - Race
 - Hispanic origin
 - Owner/renter status
 - Provides an official count of the population, which determines congressional representation.

American Community Survey and The Census

- GENERAL TOPIC Categories
 - [Age and Sex](#)
 - [Business and Economy](#)
 - [Education](#)
 - [Emergency Management](#)
 - [Employment](#)
 - [Families and Living Arrangements](#)
 - [Geography](#)
 - [Health](#)
 - [Hispanic Origin](#)
 - [Housing](#)
 - [Income and Poverty](#)
 - [International Trade](#)
 - [Population](#)
 - [Population Estimates](#)
 - [Public Sector](#)
 - [Race](#)
 - [Redistricting](#)
 - [Research](#)
 - [Voting and Registration](#)

Additional Resources

- [Explore Census Data](#)
- [Census Academy](#)
- [Combining Data](#)
- [Data Equity Tools](#)
- [Data Tools and Apps](#)
- [Infographics and Visualizations](#)
- [Index of Topics](#)
- [Puerto Rico Community Survey](#)
- [Island Area Census](#)

Federal Emergency Management Agency

FEMA History

- FEMA's mission is helping people before, during and after disasters, and our core values and goals help us achieve it.
- FEMA was officially created in 1979 through an executive order by President Jimmy Carter.
- On March 1, 2003, FEMA became part of the Department of Homeland Security.
- There are 10 regional offices located across the country.

FEMA National Risk Index

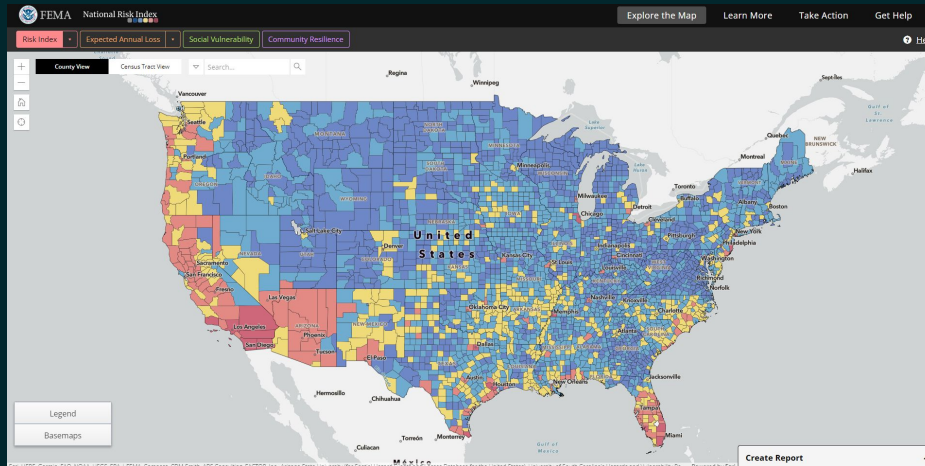
- The National Risk Index can be levered to support community prioritization of resilience efforts by providing an **at-a-glance overview of multiple natural hazard risk factors**.
- The Risk Index is accessible to anyone interested in mitigation or understanding the natural hazard risk in a community such as:
 - Public Employees
 - Local Officials
 - Community Planners
 - Academia
 - Homeowners and Renters

FEMA National Risk Index

- The National Risk Index is a dataset and online tool.
- It identified the communities most at risk for 18 natural hazards.
- It was designed and built by FEMA with various stakeholders and partners in:
 - Academia
 - Local, state and federal government
 - Private industry
- **71** entities contributed to the development of the National Risk Index by providing domain expertise and/or data. [Source](#)
- Not available in Puerto Rico, or American Samoa

FEMA National Risk Index

- The National Risk Index **interactive mapping and data-based interface** enables users to visually explore individual datasets.
- Enables user to
 - assess a community's natural hazard risk
 - create reports to capture risk details on a community or conduct community-based risk comparisons
 - export data for analysis using other software



Additional Resources

- [National Risk Index Map](#)
- [National Risk Index Overview](#)
- [National Risk Index Information](#)
- [Learn More about the National Risk Index](#)
- [National Risk Index Technical Documentation](#)
- [Risk Index Data Contributors](#)
- [Understanding Scores](#)
- [National Risk Index Technical Documentation PDF](#)

Office of Energy Efficiency and Renewable Energy

Office of Energy Efficiency and Renewable Energy

- The Department of Energy (DOE) was renamed the Office of Energy Efficiency and Renewable Energy in 1993.
- EERE's mission is to accelerate the research, development, demonstration, and deployment of technologies and solutions to equitably transition America to net-zero greenhouse gas emissions no later than 2050.
- The **Low-Income Energy Affordability Data (LEAD) Tool** was created to help stakeholders **understand housing and energy characteristics for low- and moderate-income households.**
- **Using data, maps, and graphs from the LEAD Tool**, stakeholders can make data-driven decisions when planning for their energy goals.
- The Low-Income Energy Affordability Data comes primarily from the 2018 U.S. Census American Community Survey 5-Year Public Use Microdata Samples and is calibrated to 2018 U.S. Energy Information Administration electric utility (Survey Form-861) and natural gas utility (Survey Form-176) data

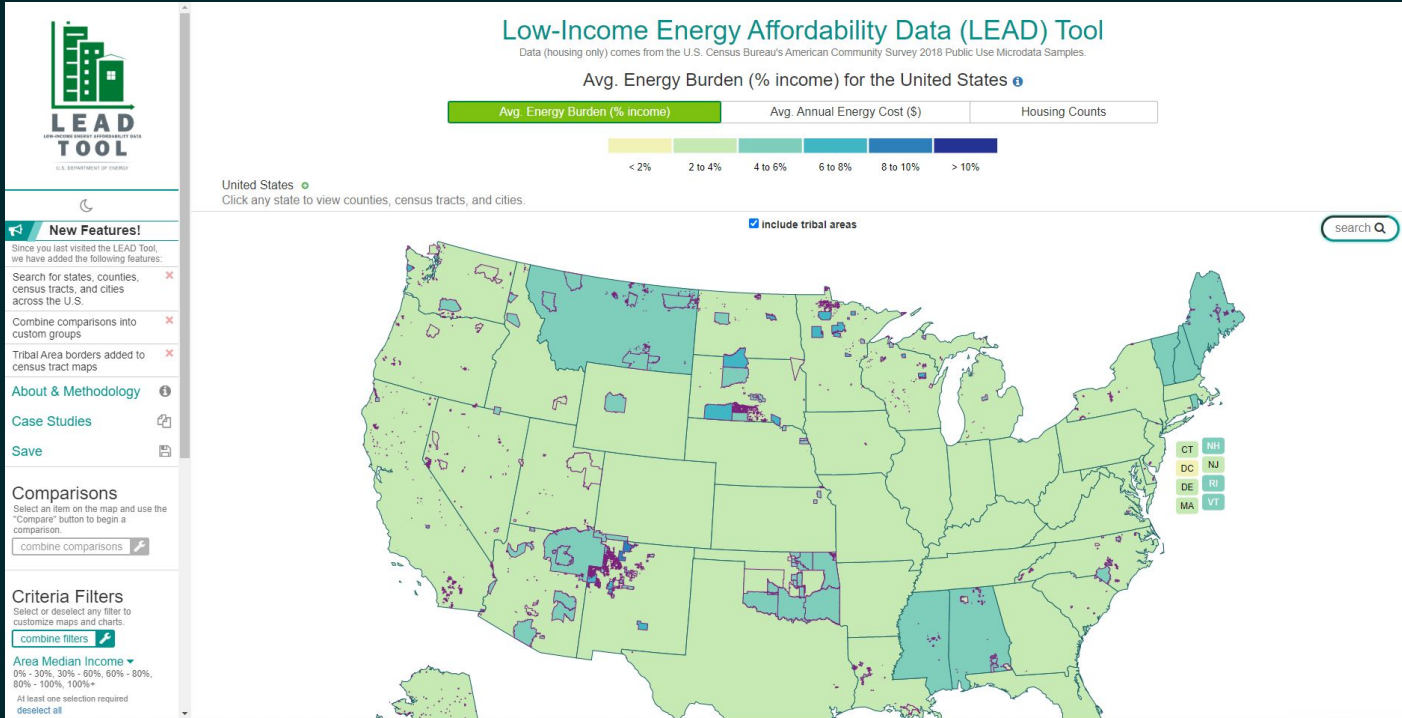
EERE LEAD Score

- **Geographic levels:**
 - National
 - 50 States plus D.C. and Puerto Rico
 - County
 - City
 - Census tract
 - Includes Tribal areas
- **Number of occupied housing units and energy expenditures by:**
 - Tenure (homeowners or renters)
 - Building year of first construction
 - Number of units in the building
 - Housing unit primary heating fuel type
- **Cost of energy:**
 - Average monthly energy expenditures
 - Average energy burden as a percentage of income spent on energy
- **Households at different income levels:**
 - Area Median Income:
 - 0-30%
 - 30-60%
 - 60-80%
 - 80-100%
 - 100%+
 - Federal Poverty Level:
 - 0-100%
 - 100-150%
 - 150-200%
 - 200-400%
 - 400%+

Office of Energy Efficiency and Renewable Energy LEAD Score

- The Low-income Energy Affordability Data (LEAD) Tool is an online, interactive platform that allows users to build their own profiles at the following levels:
 - National
 - State
 - County
 - City
 - Census tract profiles
- LEAD provides estimated low-income household energy data based on:
 - Income
 - Energy expenditures
 - Fuel type
 - Housing type
- Users can:
 - Create and save their own profile
 - Make side-by-side comparisons with other geographies
 - Download visuals and data associated with included data on:
 - Geographies
 - Housing
 - Energy characteristics

EERE LEAD Tool



Additional Resources

- [LEAD Tool](#)
- [LEAD Data Download](#)
- [ACS Info on LEAD](#)
- [LEAD Methodology](#)
- [LEAD Tool Youtube Tutorial](#)
- [LEAD Tool Webinar](#)
- [LEAD Tool Overview](#)
- [All State & Local Solution Center Resources](#)
- [EERE Initiatives and Projects](#)
- [EERE Timeline](#)

Centers for Disease Control and Prevention

Centers for Disease Control and Prevention

- The CDC is one of the major operating components of the Department of Health and Human Services and is recognized as the nation's premiere health promotion, prevention, and preparedness agency.
- CDC is the nation's leading organization that protects the public's health.
- PLACES is a collaboration between CDC, the Robert Wood Johnson Foundation, and the CDC Foundation.

PLACES Data

- PLACES provides health data for small areas across the country.
 - This allows local health departments and jurisdictions to:
 - Understand the geographic distribution of health measures
 - Assist in planning public health interventions.
- PLACES is an expansion of the original [500 Cities Project](#) that began in 2015 and ended in 2020.
- The 500 Cities project was launched by the Centers for Disease Control and Prevention (CDC) in partnership with the Robert Wood Johnson Foundation (RWJF) and CDC Foundation.
- The 500 Cities Project provided city- and census tract-level small area estimates for the largest 500 cities in the United States:
 - Chronic disease risk factors
 - Health outcomes
 - Clinical preventive services use.
- In 2020, the project expanded to provide small area estimates (SAE) for counties, places, census tracts, and ZIP Code Tabulation Areas (ZCTA) across the entire United States.

PLACES Data Centers for Disease Control

- PLACES reports county-, place-, census tract-, and ZCTA-level data.
- PLACES uses small area estimation methods to obtain 29 (27 in the 2020 release) chronic disease measures for the entire United States.
- The data are published through a public, interactive “PLACES” website.
- Users can view, explore, and download data by:
 - County
 - Place
 - Census tract
 - ZCTA

PLACES Data Centers for Disease Control

- County: 3,142 counties within 50 states and District of Columbia (DC), including 9 county and city consolidated cities.
- Place: 28,484 of 29,321 Places or Census Designated Places (CDP) with a population of 50 or more from Census Tiger 2019 Places and CDPs based on the Census 2010 population count.
- Census tract: 72,337 of 73,057 census tracts in the 50 states and Washington, DC that have a Census 2010 population of 50 or more people. Compared with the original 500 Cities Project in which estimates were made only for the part of tracts within cities, this project will provide the estimates for the entire census tract regardless of city boundaries.
- ZCTA: 32,409 of 32,989 ZCTAs in the 50 states and Washington, DC with Census 2010 population of 50 or more people.

PLACES Data Centers for Disease Control

- [PLACES Data](#)
- [PLACES Index](#)
- [CDC Data and Statistics](#)
- [CDC Data Portal](#)
- [One Page Fact Sheet PDF](#)
- [PLACES Measure Definitions](#)
- [PLACES Methodology](#)
- [CDC Programs and Interventions](#)
- [SDOH and PLACES Data](#)
- [PLACES Multimedia](#)

U.S. Small-area Life Expectancy Estimates Project (USALEEP)

- The USALEEP project produced estimates of life expectancy at birth—the average number of years a person can expect to live—for most of the census tracts in the United States for the period 2010-2015.
- The U.S. Small-area Life Expectancy Estimates Project (USALEEP) is a partnership of NCHS, the [Robert Wood Johnson Foundation \(RWJF\)](#) and the [National Association for Public Health Statistics and Information Systems \(NAPHSIS\)](#)
- The [USALEEP interactive United States map](#) shows estimates of U.S. life expectancy at birth by state and census tract for the period 2010-2015 (1-2).
 - Data is available for download directly from this page
 - Alternate data download link in additional resources
- Estimates were produced for 67,148 census tracts, covering all states and the District of Columbia (D.C.).

USALEEP MAP

Life Expectancy at Birth for U.S. States and Census Tracts, 2010–2015

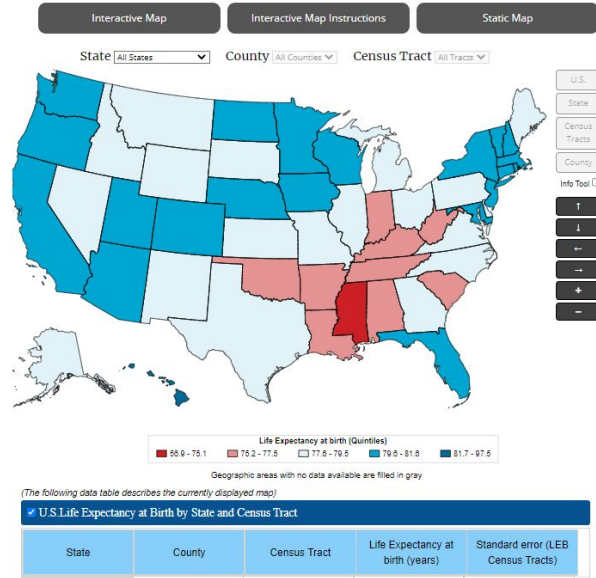
This interactive United States map shows estimates of U.S. life expectancy at birth by state and census tract for the period 2010-2015 (1-2). Estimates were produced for 67,148 census tracts, covering all states and the District of Columbia (D.C.). These estimates are the result of the collaborative project, "U.S. Small-Area Life Expectancy Estimates Project (USALEEP)," between the National Center for Health Statistics (NCHS), the National Association for Public Health Statistics and Information Systems (NAPHIS), and the Robert Wood Johnson Foundation (RWJF) (2).

Looking for a census tract code based on an address?

Type the address into the search box at <https://geoniso.flec.gov/EFEC/GeoMap/GeocodeMap1.aspx>
Use the table value named "Tract Code" to get the tract number for the address (e.g., 8059.06)

Download Datasets:

[CSV Format](#)
[Data.CDC.gov/Export to CSV / SDN_XLS_XML.r?](https://data.cdc.gov/ExportToCSV/SDN_XLS_XML.r?)



Additional Resources

- [USALEEP Methodology PDF](#)
- [USALEEP Methods Webpage](#)
- [Direct USALEEP Data Download](#)
- [Interactive Map and Data Download](#)

U.S. Department of Housing and Urban Development

Comprehensive Housing Affordability Strategy Dataset HUD

- CHAS data can demonstrate the number of households in need of housing assistance.
- This is estimated by the number of households that have certain housing problems and have income low enough to qualify for HUD's programs such as:
 - Elderly households
 - Disabled households
 - Minority households
 - 30 percent of median income
 - 50 percent of median income
 - 80 percent of median income
- CHAS data provides counts of the numbers of households that fit these HUD-specified characteristics in HUD-specified geographic areas.
- In addition to estimating low-income housing needs CHAS data contains:
 - lead paint risks
 - "affordability mismatch
 - affordability with variables like:
 - age of homes
 - number of bedrooms
 - and type of building
- On September 9, 2022 HUD released updated CHAS data based on 2015-2019 ACS 5-year estimates
- [GIS CHAS Feature Layer](#)

Additional Information

- [CHAS Data Information and Data Download Link](#)
- [CHAS API for Data Querying](#)
- [CHAS Data Documentation](#)
- [CHAS Background](#)
- [CHAS Overview](#)
- [HUD Data Portal](#)
- [HUD Datasets](#)
- [CHAS ArcGIS Map](#)
- [HUD Topics](#)
- [HUD.gov](#)

Environmental Protection Agency

EPA History

- The mission of EPA is to protect human health and the environment.
- The EPA works to ensure that:
 - Americans have clean air, land and water;
 - National efforts to reduce environmental risks are based on the best available scientific information;
 - Federal laws protecting human health and the environment are administered and enforced fairly, effectively and as Congress intended;
 - Environmental stewardship is integral to U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy;
 - All parts of society--communities, individuals, businesses, and state, local and tribal governments--have access to accurate information sufficient to effectively participate in managing human health and environmental risks;
 - Contaminated lands and toxic sites are cleaned up by potentially responsible parties and revitalized; and
 - Chemicals in the marketplace are reviewed for safety.

EJ Screen Limitations

- EPA EJScreen was developed by EPA to highlight places that **may be candidates for further review, analysis or outreach** to support the agency's environmental justice work.
- Development of EJScreen began in late 2010 and EPA began using an early version in 2012. EJScreen was peer reviewed in early 2014, and **released to the public in 2015**. Since the public release, EJScreen has been and will continue to be **updated annually** with the newest and best data available.
- EJScreen is a screening tool that examines *some* of the relevant issues related to environmental justice, and there is uncertainty in the data included.
- Environmental indicators are only screening-level proxies for actual health impacts.
- Some estimates have substantial uncertainty because the following indicators are uncertain:
 - Emissions
 - Ambient levels in the air
 - Exposure of individuals
 - Toxicity

EPA EJScreen

- EJScreen is an environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators.
- All of the EJScreen indicators are publicly-available data.
- EJScreen includes:
 - [12 environmental indicators](#)
 - [7 demographic indicators](#)
 - [12 EJ indexes](#)
- Each EJ index combines demographic indicators with a single environmental indicator.
- This tool uses provides a number of capabilities including:
 - Color coded mapping
 - The ability to generate a standard report for a selected area
 - Comparisons showing how a selected area compares to the state, EPA region or the nation

EPA EJScreen

EPA EJScreen EPA's Environmental Justice Screening and Mapping Tool (Version 2.0) EJScreen 1.0 | EJScreen Website | Mobile | Glossary | Help

Find address or place

- Compare to US Compare to State
- Environmental Justice Indexes
- Pollution and Sources
- Socioeconomic Indicators
- Health Disparities
- Climate Change Data
- Critical Service Gaps
- More Demographics

EnviroMapper
Sponsored by: Garmin, FAO, NOAA, USGS, EPA

Powered by Esri

Additional Resources

- [EPA EJScreen Map](#)
- [EPA EJScreen Data Download](#)
- [EPA EJScreen Data Download 2](#)
- [EPA EJScreen Technical Documentation](#)
- [EPA Data Portal](#)
- [EPA Open Data](#)
- [EPA Datasets](#)
- [EPA Certifications](#)
- [EPA Topic Index](#)
- [EPA Open Data](#)
- [EPA EJScreen About](#)
- [EPA Mission](#)
- [EPA EJScreen Youtube Tutorial](#)
- [EPA EJScreen Caveats and Limitations](#)
- [What is EPA EJScreen?](#)
- [EPA EJScreen Development](#)

EPA NATA

- NATA is a screening tool, intended to help EPA and state, local and tribal air agencies determine if areas, pollutants or types of pollution sources need to be examined further to better understand risks to public health.
- The 2014 NATA used the 2014 National Emissions Inventory (NEI) as a starting point.
- The NEI is EPA's comprehensive estimate of air pollution emissions from sources across the country.
- These data were updated from comments provided by state, local and tribal agencies during the NATA review. The resulting emission files, accessed below, reflect the emissions used in NATA.
- The most recent national screening assessment is the Air Toxics Screening Assessment, or AirToxScreen.

Additional Resources

- [EPA NATA Webpage](#)
- [2014 NATA Results](#)
- [NATA Fact Sheet](#)
- [Previous NATA Versions](#)
- [NATA Results Summary PDF](#)
- [1996 NATA Data](#)

EPA Air Toxics Screening Assessment

- Not included in the Justice40 Calculation
- Taken in 2018 with potentially more up to date information for your needs
- [AirToxScreen](#)

EPA Risk-Screening Environmental Indicators (RSEI) Model

- A RSEI Score is a unitless value that accounts for the:
 - Size of the chemical release
 - Fate and transport of the chemical through the environment
 - Size and location of the exposed population
 - Chemical's toxicity
- A RSEI Score is calculated as toxicity weight multiplied by the exposed population multiplied by the estimated dose.
- RSEI Scores are only meaningful in comparison to other RSEI Scores.
- Ranking facilities, chemicals, industries, or other aggregations by RSEI Score can highlight situations that might warrant concern and need additional investigation.
- RSEI does not perform a risk assessment, but is rather a screening-level tool to help identify situations of potential concern.

EPA Risk-Screening Environmental Indicators (RSEI) Model

- **Using RSEI to Explore TRI Data**

- RSEI helps users to:
- Look at trends in RSEI Score over time and across sectors, chemicals, facilities and locations;
- Rank and prioritize chemicals, industry sectors, and locations for strategic planning;
- Support community-based projects; and
- Highlight situations with higher relative RSEI Scores that may warrant further investigation to better assess potential chronic human health risks.

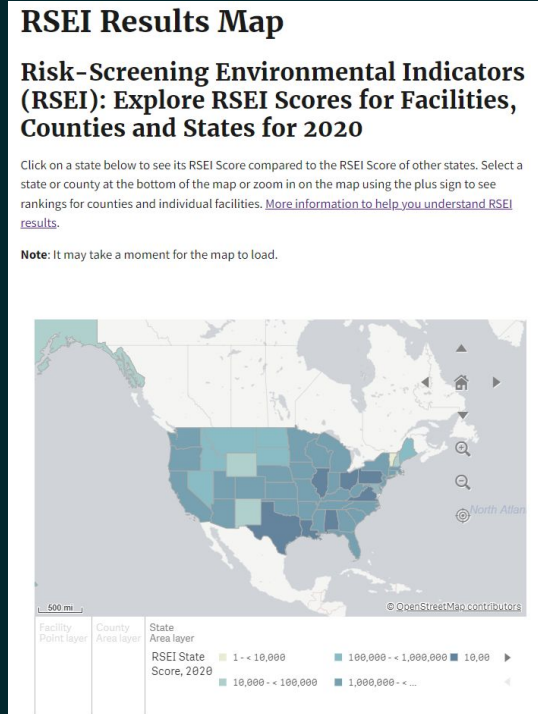
EPA Risk-Screening Environmental Indicators (RSEI) Model

- **Some Limitations of RSEI**

- As with any model, RSEI is subject to the limitations of the underlying data sources and models that it incorporates, in addition to its own limitations:
- RSEI relies exclusively on TRI-reported data (TRI-listed chemicals reported by TRI-regulated facilities) for release quantities; TRI does not include all toxic chemicals or all sources of risk from environmental pollution. ([Read about factors to consider when using TRI data.](#))
- A low RSEI Score indicates low potential concern from reported TRI releases, but other kinds of environmental risk may also be present.
- RSEI does not provide RSEI Scores for all TRI chemicals because information required for modeling, such as toxicity data, is not available for every chemical.
- RSEI does not cover all exposure routes or all health effects.
- [RSEI toxicity weights](#) are based only on chronic human toxicity and do not address acute human toxicity or environmental toxicity.
- Dermal and food ingestion pathways (other than fish consumption) and other indirect exposure pathways are not evaluated.
- RSEI does not produce risk estimates such as excess cancer cases. RSEI Scores are unitless and are only meant for comparison to other RSEI Scores.
- RSEI uses a number of simplifying assumptions.

EPA Risk-Screening Environmental Indicators (RSEI) Model

- [RSEI Map](#)



EPA Risk-Screening Environmental Indicators (RSEI) Model

- [RSEI Results Map](#)
- [EasyRSEI](#)
- [Risk-Screening Environmental Indicators \(RSEI\) Methodology Version 2.3.10](#)
- [EasyRSEI Basics](#)
- [How RSEI Should be Used](#)
- [Youtube Video RSEI Modeling](#)
- [RSEI AWS Open Data](#)
- [RSEI AWS Open Data 2](#)
- [Github RSEI Open Data](#)
- [RSEI and NATA](#)
- [Youtube Video Understanding RSEI Results](#)
- [Understanding RSEI Results](#)
- [TRI-Listed Chemicals](#)
- [TRI and RSEI](#)
- [TRI Program](#)
- [TRI Tools and Data](#)
- [Learn About RSEI](#)

RCRA Info

- RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984.
- The RCRAInfo system enables **cradle-to-grave waste tracking** of many types of information regarding the regulated universe of **RCRA hazardous waste handlers**.
- RCRAInfo characterizes:
 - Facility status
 - Regulated activities
 - Compliance histories
 - Detailed data on the generation of hazardous waste from large quantity generators
 - Waste management practices
 - Treatment
 - Storage
 - Disposal facilities
- ***Mandatory data elements must be entered into RCRAInfo within 30 days of the occurrence of an activity (or within 60 days for States that have their own State data systems and must translate the information to RCRAInfo).***
- RCRAInfo data are increasingly being relied on by many stakeholders for a wide variety of purposes.

RCRA Info

- The following are generally required to provide information about their activities to state environmental agencies:
 - Generators of hazardous waste
 - Transporters of hazardous waste
 - Treaters of hazardous waste
 - Storsers of hazardous waste
 - Disposers of hazardous waste
- Use the RCRAInfo Search to determine identification and location data:
 - Specific hazardous waste handlers
 - Information on treatment, storage, and disposal facilities
 - Permit/closure status
 - Compliance with Federal and State regulations
 - Cleanup activities

EPA RCRA Info

- [RCRA Info](#)
- [RCRA Info Search](#)
- [Restricted Access to Professionals Login](#)

CERCLIS/Superfund

- Congress established the [Comprehensive Environmental Response, Compensation and Liability Act \(CERCLA\)](#) in 1980.
- Thousands of contaminated sites exist nationally due to hazardous waste being dumped, left out in the open, or otherwise improperly managed.
- These sites include:
 - Manufacturing facilities
 - Processing plants
 - Landfills
 - Mining sites
- CERCLA is informally called Superfund.

CERCLIS/Superfund

- CERCLA allows the EPA to clean up contaminated sites.
- It also forces the parties responsible for the contamination to either perform cleanups or reimburse the government for EPA-led cleanup work.
- The SEMS Search allows you to retrieve Superfund data from the Superfund Enterprise Management System (SEMS) database in Envirofacts.
- CERCLIS is the Comprehensive Environmental Response, Compensation, and Liability Information System.
- CERCLIS contains information on hazardous waste sites, site inspections, preliminary assessments and remedial status.

EPA CERCLIS Info (as in CERJST)/ SEMS

- [Search for Superfund Sites Where You Live](#)
- [SEMS Search](#)
- [Search Superfund Site Information](#)
- [What is Superfund?](#)
- [CERCLIS Info](#)

EPA RMP Database

- Risk Management Plans (RMPs) prepared and submitted pursuant to CAA section 112(r) are, by statute, available to the public.
- Members of the general public may obtain RMP data by visiting a designated federal reading room or by contacting their [SERC](#) or [LEPC](#) public contact. Information on [federal reading rooms for RMPs](#) is available.
- A member of the general public may also submit an official FOIA request to obtain non-OCA RMP data. Information on how to submit a FOIA request is available at the following URL: www.foia.gov
- In addition, any person may contact a facility directly to request the facility's RMP information. However, facility owners and operators are not required to give their facilities' RMP information directly to the public.
- Anyone may contact the RMP Reporting Center to inquire and receive a "yes" or "no" answer regarding whether a specific facility has submitted an RMP. The RMP Reporting Center can be reached at (703) 227-7650 or RMPRC@epacdx.net.

EPA RMP Database

- Section 112(r) of the Clean Air Act Amendments requires EPA to publish regulations and guidance for chemical accident prevention at facilities that use certain hazardous substances. These regulations and guidance are contained in the Risk Management Program (RMP) rule.
- The RMP rule requires facilities that use extremely hazardous substances to develop a Risk Management Plan which:
 - identifies the potential effects of a chemical accident,
 - identifies steps the facility is taking to prevent an accident, and
 - spells out emergency response procedures should an accident occur.
- These plans provide valuable information to local fire, police, and emergency response personnel to prepare for and respond to chemical emergencies in their community.

EPA RMP Database

- [Accessing RMP Data](#)
- [Risk Management Program \(RMP\) Rule](#)
- [Risk Management Program \(RMP\) Rule Overview](#)
- [RMP Information Center](#)

Department of Transportation

Department of Transportation Traffic proximity and volume

- Goal of the DOT is “To deliver the world’s leading transportation system, serving the American people and economy through the safe, efficient, sustainable, and equitable movement of people and goods.”
- Operating Administrations
 - [FAA](#)
 - [FHWA](#)
 - [FMCSA](#)
 - [FRA](#)
 - [FTA](#)
 - [GLS](#)
 - [MARAD](#)
 - [NHTSA](#)
 - [OIG](#)
 - [OST](#)
 - [PHMSA](#)

Traffic proximity and volume

- The DOT has several online tools and datasets available to the public.
- The CEJST specifically states “Traffic proximity and volume”
 - This is stated as “Source: Traffic data from 2017 as compiled by EPA's EJScreen”
- [Bureau of Transportation Statistics](#)
 - Keyword “traffic proximity and volume” yields 21 datasets in the data.gov department of transportation page

Additional Resources

- [DOT Data Inventory](#)
- [DOT Websites and Digital Services](#)
- [ITS Datahub](#)
- [Bureau of Transportation Statistics](#)
- [DOT Geospatial and Map Gallery](#)
- [About DOT](#)

What do I do if I cannot find data for my area?

1. Look at government data at all levels
 - a. City
 - b. County
 - c. State
 - d. Federal
2. Search for your geography in data discovery tools
3. Look at individual agency data
4. Consider other data sources keeping in mind:
 - a. Usage ability
 - b. Giving credit to the data source
 - c. Data limitations
 - i. Limited Geography
 - ii. Required work (geo-coding, data remediation)
 - iii. Effective time you can use said data
 1. COVID-19 vaccination data may quickly be out of date
 - iv. Older collection period
5. If a dataset is unavailable with a contact owner option, see the Data Access Slide about contacting Dataset Owners

Additional Resources

Additional Data Sources

- [American Samoa CMSP Data Portal](#)
- [U.S. Census Bureau \(Specify Geography\)](#)
- [2020 Island Areas Censuses: American Samoa](#)
- [Island Areas - American Samoa Dataset](#)
- [2020 Census: Conducting and Motivating the Count: Counting the Island Areas](#)
- [2010 Census Guam](#)
- [Our World in Data \(Search your geography\)](#)
- [2010 Island Areas - Commonwealth of the Northern Mariana Islands Dataset](#)
- [2010 Island Areas - U.S. Virgin Islands Dataset](#)
- [American Samoa GDP](#)
- [USGS Water Data for American Samoa](#)
- [USGS Current Water Data for American Samoa](#)
- [Global Health Data Exchange](#)
- [NOAA Benthic Mapping for Coastal Managers](#)
- [American Indian and Alaska Native Summary File Dataset](#)
- [American Indian and Alaska Native Data Links](#)
- [Data.gov](#)

Additional Data Source (Cont.)

- [Census Geocoder](#)
- [Census Glossary](#)
- [Zipcode-ZCTA Crosswalk](#)
- [State FIPS Codes](#)
- [States and Counties FIPS](#)
- [County FIPS Code](#)
- [American National Standards Institute \(ANSI\) and Federal Information Processing Series \(FIPS\) Codes](#)
- [Zip Code Tabulation Areas](#)
- [GIS Info National Geographic](#)
- [USGS Info GIS](#)
- [ESRI GIS Overview](#)

Organizations that may be helpful

- UDS Mapper
 - FQHC Health Data
 - [UDS Mapper Tutorials](#)
 - [UDS Mapper Resources](#)
- USGS
 - Geologic Data
 - [USGS Data Catalog Information](#)
 - [USGS Data Catalog](#)
- Library of Congress
 - [Dataset Guide](#)
 - [Citing Datasets Guidance](#)
- EPA IAQ
 - <https://www.epa.gov/education/supporting-healthy-houses-worship>
 - <https://www.energystar.gov/campaign/home?s=mega>
 - <https://www.energystar.gov/congregation>
 - <https://www.energystar.gov/buildings/tools-and-resources/energy-star-commercial-buildings-college-course>
 - https://www.epa.gov/system/files/documents/2022-04/faqs_ejsg-2022.pdf
 - <https://www.epa.gov/environmentaljustice/environmental-justice-small-grants-program>
 - <https://www.epa.gov/environmentaljustice/environmental-justice-grants-funding-and-technical-assistance>
 - <https://www.epa.gov/smartgrowth/building-blocks-sustainable-communities>

Further RAC Trainings

- For further RAC trainings please see the [RAC Events Calendar](#) to see our available trainings.
- To see this presentation go to the Data Key in the [RAC Justice40 Data Attribution Guide](#)

Acknowledgements

- This presentation prepared for Resilient American Communities by Heron Bridge Education, LLC.
- Thank you for your time.
- Please feel free to contact me at lbooyer2016@gmail.com

