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DATA COLLECTION FOR GRANT APPLICATIONS & REPORTING

A brief guide designed to assist with data collection for grant applications and reporting

EPA PREPARED: Building evidence-based tools to integrate community experiences

September 2024

ABOUT THIS GUIDE

This document is developed by the “EPA PREPARED: Building evidence-based tools to integrate community experiences” project under the U.S. Environmental Protection Agency cooperative agreement for Promoting Readiness and Enhancing Proficiency to Advance Reporting and Data.

Electronic Access
The document is electronically available at the UMass Dartmouth EPA PREPARED website: https://epaprepared.sites.umassd.edu/

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1. How to Use this Guide

This guide is designed to help you effectively navigate databases and interactive maps to identify and analyze environmental and socioeconomic burdens and health disparities for your community.

Data collection is required both at the stages of grant preparation and reporting. At the stage of application, composing a compelling community's need narrative for federal or state grant applications can be a complex and challenging task. Data collection is an essential component not only at the stage of application but also at the stage of reporting. This guide aims to provide the key concepts in order to strengthen your applications and the overall impact of your environmental programs.

This guide is designed for practitioners seeking to grasp fundamental concepts of data collection, including geographic units, percentiles, and the array of available tools and databases. It provides a concise overview of essential principles and practical insights to help you effectively gather, analyze, and utilize data. Whether you are new to data collection or looking to enhance your existing knowledge, this guide will equip you with the foundational understanding needed to navigate various data sources and make informed decisions.

By providing detailed instructions on accessing, interpreting, and applying data from these sources, we aim to empower you with the knowledge needed to uncover critical insights into how environmental hazards, economic conditions, and public health outcomes affect different communities.

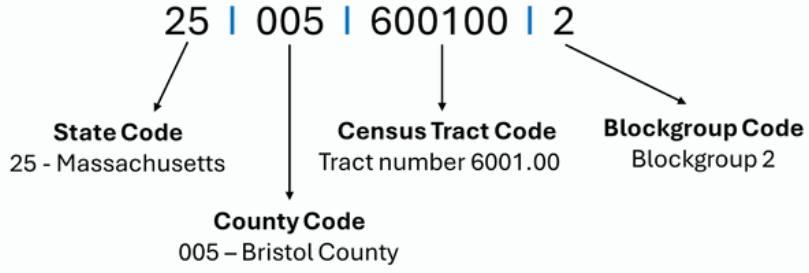
2. Understanding Geographic Units

Each database may present data with varying levels of granularity, which adds complexity, and can affect the data collection and analysis. The majority of the databases are reporting data at the census tract and census block group level, as defined by the Census Bureau.

Census Tract (CT)
Census tracts are small areas within counties with roughly equal populations designed to provide demographic, social, and economic data. These tracts usually have between 1,200 and 8,000 people, with an optimum population of 4,000. Their boundaries are typically consistent over time, to allow for comparable statistical analysis.

Blockgroup (BG)
Census blockgroups are a subdivision of census tracts, and generally defined to contain between 600 and 3,000 people. They provide a more granular level of detail compared to census tracts, and can be used to conduct analysis for smaller neighborhoods and areas.

Understating Census Tract and Blockgroup Unique Codes
Census tracts are identified by a 4-digit basic code between 0001 and 9999, and may have a 2-digit suffix ranging from 0.01 to 0.98; for example, 6059.02. Each census tract contains at least one blockgroup, uniquely numbered with a 12-digit code which includes the state, county, census tract, and blockgroup codes. For example:



3. Understanding Percentiles

In addition to the measurement units and percentages, parameters are also reported in percentiles which allow a comparison of individual data points to a larger dataset.

Incorporating percentiles when reporting socioeconomic, environmental, public health data, can enhance the context of your information by allowing for an easier comparative analysis and demonstrating the relative position with respect to the rest of the dataset. The majority of the percentiles used in this type of analysis are reported compared to the nation or the state.

> By definition, percentiles indicate the percentage of scores that fall below a particular value. For example, if a value X is at the 90th percentile, it is **greater** than 90% of the values in the particular dataset.

National Percentiles: They demonstrate how a parameter ranks compared to the entire country. For example, if a blockgoup's low-income populations rank at the 65th percentile nationally, it means that 65% of the blockgroups have low-income populations lower than the particular blockgroup. Or alternatively, the blockroup ranks at the top 35% of blockgroups with the highest low-income populations compared to the nation.

State Percentiles: They show comparison of parameters with data within the specific state.

4. Existing Tools and Databases

Several databases and interactive maps exist to identify environmental and socioeconomic burdens and health disparities both at the federal and state levels. The resources enable detailed analysis of various factors affecting communities, including environmental hazards, economic conditions, and public health outcomes.

Federal Tools

EPA's Environmental Justice Screening and Mapping Tool (EJScreen): The tool combines environmental and demographic data to identify areas overburdened by environmental hazards.

Climate and Economic Justice Screening Tool (CEJST): The tool identifies disadvantaged communities based on burdens related to climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.

EPA's EnvironAtlas: The database offers 500+ datasets of environmental conditions such as ecosystem services and biodiversity, pollutions sources, and built environment.

CDC PLACES: The platform offers community-level health data such as heart disease, asthma, diabetes, obesity, and others.

State Tools

Several states have an established environmental justice policy and have designated environmental justice communities and populations according to state criteria. In New England, MA environmental justice populations, CT environmental justice communities, RI Environmental justice focus area, and VT environmental justice focus populations.

Summary of Available Tools

	EJScreen	CEJST	State EJ
Agency	EPA	Council on Environmental Quality	States
Geographic Unit	Blockgroup, Census Tract, City, County	Census Tract	Blockgroup or Census Tract
Reporting Units	Variable measured units, nationwide & statewide percentiles	Variable measured units, nationwide percentiles	Percentages
Socioeconomic Variables	Income, people of color, unemployment, English proficiency, education	Income, people of color, linguistic isolation, education, poverty, unemployment	Income, people of color, limited English proficiency
Environmental Variables	Air quality indicators, proximity to hazardous waste, climate change	Climate change, energy, legacy pollution, water and wastewater	-
Health Variables	Asthma, heart disease, low life expectancy, heart disease, diabetes, cancer. disabilities	Asthma, heart disease, low life expectancy, heart disease, diabetes	-
Infrastructure Variables	Critical service gaps	Housing, Transportation	-