2019 Community Resilience Estimates

Equity Supplement

Quick Guide

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Small Area Estimates Program

Social, Economic, and Housing Statistics Division

U.S. Census Bureau, Department of Commerce

Contents

Overview

Community resilience is the capacity of individuals and households within a community to absorb the external stresses of a disaster. To measure this, the Census Bureau produced the 2019 Community Resilience Estimates (CRE). This was done using information on individuals and households from the 2019 American Community Survey (ACS) 1-year microdata, the Census Bureau's Population Estimates Program (PEP), and small area modeling techniques. The end result is a data product which measures social vulnerability more accurately, timely, and address equity concerns differently than other measures.

To provide context to the estimates and add to the discussion of equity, the CRE program has created the 2019 Community Resilience Estimates Equity Supplement or the "CRE for Equity".

Data

The CRE for Equity dataset provides information about the nation, states, counties, and census tracts from three different data sources. These sources include the Community Resilience Estimates, the American Community Survey, and the Census Bureau's Planning Database. Providing all this information in one dataset allows users quick access to the data on a variety of topics concerning social vulnerability and equity.

Community Resilience Estimates

The Community Resilience Estimates program provides an easily understood metric for how at-risk every neighborhood in the United States is to the impacts of disasters, including COVID-19. Modeled estimates are based on 10 resilience-related risk factors. Current estimates are modeled using 2019 American Community Survey 1-year data and displays the number and percentage of residents living with zero, one-two, and three or more risk factors for the nation, states, counties, and tracts.

American Community Survey

The ACS is a nationally representative survey with data on the characteristics of the U.S. population. The sample is selected from all counties and county-equivalents and has a sample size of about 3.5 million housing units each year. It is the premier source for detailed population and housing information about our nation and the communities within it. Although the CRE and its estimates are modeled using 1-year data, equity measures from the ACS in the CRE for Equity data product use 2015-2019 American Community Survey 5-year estimates.

Planning Database

The 2021 Census Bureau's Planning Database (PDB) contains select operational, housing, demographic, and socio-economic statistics from the 2010 Census and the American Community Survey (ACS) 5-year files. It also contains the Low Response Score (LRS), where the LRS is a predicted value of mail self-response. The PDB was designed as an aid for survey and census planning but has many potential uses such as disaster and emergency planning.

CRE for Equity

The CRE for Equity database takes relevant information from all three of these data sources. This allows data users to complete analysis of relevant variables quickly. With more than 100 different variables, the data set provides context to social vulnerability and equity.

Topics

The following topics are included in the CRE for Equity dataset.

- Community Resilience
- Race and Ethnicity
- Disability
- Urban/Rural Areas
- Educational Attainment
- Housing Vacancy Rates

- Population Counts
- Sex
- Poverty
- Internet Access
- Health Insurance
- Veterans Status

- Housing Unit Counts
- Age
- Income Inequality
- Vehicle Access
- English proficiency
- Household Structure

Geography Levels

The CRE for Equity data product is comprised of five CSV files. There are individual files for the nation, states, counties, and all census tracts. There is also an overall file with all this information in one csv file.

Flags & Statistical Uncertainty

As with most products the Census Bureau creates many of the estimates in the data set have some statistical uncertainty because of survey sampling techniques. To address this, a measure of uncertainty is attached to these estimates know as a margin of error.

In addition to providing a margin of error, the CRE for Equity Dataset has "flag" variables. These variables are provided to denote whether a statistical difference exists between the estimate for a geographic area and the estimate for the United States. These statistical tests are performed using the estimates and their accompanying margins of error.

These flags should allow data users to quickly determine differences of note when analyzing certain geographic areas. Additional information about these flags, instances where statistical testing is not performed, and the meaning of the values can be found in the "CRE for Equity File Layout" document. More information about performing statistical testing with American Commuinity Survey data can be found at < https://www2.census.gov/programs-surveys/acs/tech_docs/statistical_testing/2019_Instructions_for_Stat_Testing_ACS.pdf>.

Contact Information

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Further Information

Community Resilience Estimates Website
<census.gov/programs-surveys/community-resilience-estimates.html>

Community Resilience Estimates Technical Documentation
<census.gov/programs-surveys/community-resilience-estimates/technical-documentation.html>

American Community Survey Website
<census.gov/programs-surveys/acs/>

Census Planning Database Website
<census.gov/topics/research/guidance/planning-databases.html>

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