# Census Tracts in Persistent Poverty in Metro Areas and Cities 

Craig Benson<br>U.S. Census Bureau<br>Social, Economic, and Housing Statistics Division

Presented at the 2024 Annual Meeting of The American Association of Geographers

Honolulu, Hawaii
April 17, 2024

## Background

## Key Results From 2023 Report:

- $10.9 \%$ of counties and $11.3 \%$ of census tracts were in persistent poverty.
- 28.5 million people ( $9.0 \%$ of U.S. population) lived in a persistent poverty tract, 9 million more than in persistent poverty counties. Around $75 \%$ of census tracts in persistent poverty are not in a persistent county.
- Researchers and government agencies have primarily used the geographic unit of county. There is no current consistent method for defining persistent poverty.
- Counties and census tracts in persistent poverty had different spatial distributions. Counties were overrepresented in the South.

Persistent Poverty in Counties and
Census Tracts


Census ${ }^{\text {United States* }}$ | $\begin{array}{l}\text { u.s. CENSUS Bu } \\ \text { census.gov }\end{array}$ |
| :--- |

## Background: Basis For Study

Figure 1. County and Census Tract Comparison

- Nearly three-quarters of persistently poor census tracts were not in persistently poor counties.
- Large clusters of tracts were in urban areas.
- This was different from the spatial pattern of counties.


Source: U.S. Census Bureau, 1990 and 2000 Decennial Censuses; and 2005-2009 and 2015-2019 American Community Survey, 5-year estimates.

## Background

- Precisely identifying persistent poverty areas is important because research has suggested that people living in high-poverty areas experience more acute systemic problems.
- Limited access to medical services, healthy and affordable food, quality education, and civic engagement opportunities (Farrigan, 2021).
- This project determined the spatial locations of people living in persistent poverty census tracts in urban areas by analyzing the proportion of the population in the 100 most populous places, cities, and metropolitan statistical areas (metro areas, MSAs).


## Background

## How Is Poverty Determined?

- Comparing annual income to a set of dollar values (poverty thresholds) that vary by family size, number of children, and age of householder that is updated annually.


## What Is Persistent Poverty?

- The 10-20-30 provision of the 2009 American Recovery and Reinvestment Act stated if an area had a poverty rate of $20 \%$ or greater for 30 years, then $10 \%$ of any government agency's appropriated programmatic funds should be invested in persistent poverty communities. Agencies may use alternative definitions for programmatic purposes.


## What Are Area Populations Based on?

- Population totals used the poverty universe from the American Community Survey (ACS), 2015-2019 5-year estimates.
- The poverty universe excludes; children under the age of 15 who are not related to the householder, people living in institutional group quarters and people living in college dormitories or military barracks.


## Research Methods: Data Sources

- Census tracts were included in the persistent category if they had a poverty rate of $20 \%$ or more at each datapoint.
- 1990 Decennial Census
- 2000 Decennial Census
- 2005-2009 ACS 5-year estimates
- 2015-2019 ACS 5-year estimates
- This definition of persistent poverty is purely for this project and is one of several viable options. The U.S. Census Bureau takes no official position at this time on how persistent poverty should be defined.
- Other government agencies' definition may be affected by legislation or programspecific need.


## Research Methods: Geographic Considerations

- Importance of identifying persistent poverty in the most populous areas.


## Levels of Geographic Analysis

- Census tracts: Because of changes after each decennial census, harmonized census tract data from IPUMS were used to establish a set of consistent tracts across the project span. The geographic center (centroid) was used to determine inclusion in individual cities.
- Metropolitan statistical area (metro area or MSA): 100 most populous analyzed. They represent more than two-thirds of U.S. population.
- Census places can include cities and towns. The 100 most populous were used in this analysis. Together they amount to $20 \%$ of U.S. population.


## Research Methods: Geographic Considerations

Figure 2: Census Tracts in Anaheim, CA


United States ${ }^{\text {® }}$
ensus

Both census tracts (bright red) were in persistent poverty, but their geographic center was in another city and not included in the Anaheim city persistent poverty population. The dark blue is the portion of the tract in Anaheim.

## Research Methods: Geographic Relationships

Figures 3-4.

Chicago-Naperville-Elgin MSA Census Tracts in Persistent Poverty


Chicago City Census Tracts in Persistent Poverty


United States ${ }^{\ominus}$
ensus
Bureau

Census tract in persistent poverty
Chicago city boundary
County boundary
Chicago -Naperville-Elgin metro area

## Results: All U.S. Tracts in Persistent Poverty

Figure 5: Persistently Poor Tracts Within Persistently
Poor Counties


Figure 6: Persistently Poor Tracts Outside Persistently Poor Counties


Source: U.S. Census Bureau, 1990 and 2000 Decennial Censuses; and 2005-2009 and 2015-2019 American Community Survey, 5-year estimates.

## Results: 100 Most Populous Cities

- The 100 most populous cities had a large range of population, from 216,341 to $8,278,322$ people (2019). The total population represented just below $20 \%$ of U.S. population.

| Table 1. <br> Census Tracts With <br> Centroids in the $\mathbf{1 0 0}$ Most <br> Populous Cities | Total <br> number <br> of tracts | Percent of <br> U.S. total <br> tracts | Number of <br> tracts in <br> persistent <br> poverty | Percent of <br> tracts in <br> persistent <br> poverty | Percent of U.S. <br> total tracts in <br> persistent <br> poverty |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Census tracts in most <br> populous cities | 15,234 | 20.9 | 3,306 | 21.7 | 40.1 |
| U.S. census tracts | 73,057 | 100 | 8,238 | 11.3 | 100 |

Source: U.S. Census Bureau, 1990 and 2000 Decennial Censuses; and 2005-2009 and 2015-2019 American Community Survey, 5-year estimates.

## Results: 100 Most Populous Cities

| Table 2. <br> Population in Persistent <br> Poverty | Population living <br> in persistent <br> poverty tract | Percent of <br> population living <br> in persistent <br> poverty tract | Percent of U.S. <br> population living in a <br> persistent poverty <br> tract |
| :--- | :--- | :--- | :--- |
| Census tracts in most <br> populous cities | $11,368,801$ | 18.1 | 39.9 |
| U.S. census tracts | $28,491,163$ | 9.0 | 100 |

Source: U.S. Census Bureau, 1990 and 2000 Decennial Censuses; and 2005-2009 and 2015-2019 American Community Survey, 5-year estimates.

## Results: 100 Most Populous Cities

- 12 cities had $30 \%$ or more of their population living in a persistent poverty census tract.
- 19 cities had less than $4 \%$ and 9 had no population in persistent poverty. 7 of the 9 were in the West.
- The West also had the three lowest percentages for cities with more than 1 million in population (San Jose, 1.9\%; San Diego, 10.4\%; and Phoenix, 14.1\%).
- 33 cities had more than 100,000 people living in persistent poverty tracts.

| Table 3. <br> Cities with 30 Percent or More of <br> Population Living in Persistent <br> Tracts | Percent of <br> population |
| :--- | :---: |
| Detroit, Michigan | 53.9 |
| Laredo, TX | 50.1 |
| Miami, Florida | 48.9 |
| Cleveland, Ohio | 47.3 |
| Buffalo, New York | 46.3 |
| Baton Rouge, Louisiana | 42.6 |
| Newark, New Jersey | 39.8 |
| Milwaukee, Wisconsin | 32.7 |
| Fresno, California | 31.1 |
| Atlanta, Georgia | 31.0 |
| Philadelphia, Pennsylvania | 30.4 |
| El Paso, TX | 30.1 |

## Results: 100 Most Populous Cities



United States ${ }^{\text {® }}$
ensus
$\square$ U.S. percentage of population living in persistent poverty counties

## Results: 100 Most Populous Metro Areas

- The metro areas had a population of $212,791,816$, or $67.2 \%$ of U.S. population (2019).

| Table 4. <br> Census Tracts in the 100 <br> Most Populous MSAs | Number <br> of tracts | Percent of <br> U.S. total <br> tracts | Number of <br> tracts in <br> persistent <br> poverty | Percent of <br> tracts in <br> persistent <br> poverty | Percent of U.S. <br> total in <br> persistent <br> poverty |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Census tracts in most <br> populous MSAs | 46,900 | 64.2 | 4,931 | 10.5 | 59.9 |
| U.S. census tracts | 73,057 | 100 | 8,238 | 11.3 | 100 |

Source: U.S. Census Bureau, 1990 and 2000 Decennial Censuses; and 2005-2009 and 2015-2019 American Community Survey, 5-year estimates.

## Results: 100 Most Populous Metro Areas

- More than 17 million out of the total 28 million people living in a persistent poverty census tract were in the 100 most populous metro areas.

| Table 5. <br> Census Tracts in $\mathbf{1 0 0}$ Most <br> Populous MSAs | Population living in <br> persistent poverty <br> tract | Percent of population <br> living in persistent <br> poverty tract | Percent of US total <br> living in a <br> persistent poverty <br> tract |
| :--- | :--- | :--- | :--- |
| Census tracts in most populous <br> MSAs | $17,379,598$ | 8.2 | 61.0 |
| U.S. census tracts | $28,491,163$ | 9.0 | 100 |

Source: U.S. Census Bureau, 1990 and 2000 Decennial Censuses; and 2005-2009 and 2015-2019 American Community Survey, 5-year estimates.

## Results: 100 Most Populous Metro Areas

- The range of percentage of population in persistent poverty tracts was $1.1 \%$ to $75.2 \%$.
- 3 MSAs (McAllen-Edinburg-Mission, TX; EI Paso, TX; and Fresno, CA) had more than $30 \%$ of population living in persistent tracts. 42 had more than 100,000 people living in a persistent tract.
- 22 metro areas had less than $4 \% .7$ had less than $2 \%$ of population living in persistent tracts -all in the west or south.
- Regional analysis showed less variation than cities, with all census regions having between $7.4 \%$ and $10 \%$ of population living in a persistent tract.


## Results: Undetected Persistent Poverty Population

- Over 2 million people in New York City lived in a persistent poverty tract.
- After excluding 2 in-city counties in persistent poverty, there were more than 530,000 people living in a persistently poor tract.

| Table 6. <br> New York City (NYC) <br> Census Tract Persistent <br> Poverty by County | Total <br> population <br> tracts |  | Tracts in <br> persistent <br> poverty | Tract <br> population <br> in persistent <br> poverty | Percent of <br> tracts in <br> persistent <br> poverty | Percent of <br> population <br> in persistent <br> poverty |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| NYC tracts total | $8,278,322$ | 2,164 | 442 | $2,069,481$ | 20.4 | 25.0 |
|  |  |  |  |  |  |  |
| NYC tracts in PP county | $3,964,880$ | 1,099 | 352 | $1,530,904$ | 32.0 | 38.6 |
| NYC tracts not in PP county | $4,313,442$ | 1,065 | 90 | 538,577 | 8.5 | 12.5 |

Source: U.S. Census Bureau, 1990 and 2000 Decennial Censuses; and 2005-2009 and 2015-2019 American Community Survey, 5-year estimates.

## Results: Previously Unaccounted Population

## Cities:

- After persistent counties were excluded, the city tracts accounted for $30 \%$ of the total U.S. population living in a persistent poverty census tract.


## Metro Areas:

- After persistent counties were excluded, there were 4,027 tracts and 13,660,171 people, nearly $48 \%$ of the total U.S. population that lived in a persistent tract.

| Table 7. <br> Exclusion of <br> Persistent Counties | Tract <br> population <br> in persistent <br> poverty <br> county | Persistent <br> population <br> not in <br> persistent <br> county | Remaining <br> percent of <br> population | Remaining <br> percent of total <br> U.S. population <br> in persistent <br> tracts | Percent of total US <br> population not in <br> a persistent <br> county |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Most populous cities | $2,828,777$ | $8,540,024$ | 15.6 | 30.0 | 42.1 |
| Most populous MSAs | $3,719,427$ | $13,660,171$ | 6.7 | 47.9 | 67.4 |

Source: U.S. Census Bureau, 1990 and 2000 Decennial Censuses; and 2005-2009 and 2015-2019 American Community Survey, 5-year estimates.

## Conclusions

- Unlike counties, persistent poverty in the most populous cities and MSAs was more evenly distributed, with no over-representation in the South.
- In the most populous cities, $21.7 \%$ of tracts and $18.1 \%$ of people $(11,368,801)$ lived in a persistent poverty census tract. This population total was nearly 40\% of all people in the nation living in a persistent census tract.
- In the most populous MSAs, $10.5 \%$ of tracts and $8.2 \%$ of people $(17,379,598)$ lived in a persistent tract. This was more than $60 \%$ of all population in the U.S. that lived in a persistent poverty census tract.


## Conclusions

- By excluding persistent poverty counties that were in the boundaries of cities and MSAs, over 13 million people in large MSAs could be identified. Twothirds of all tracts not in a persistent county nationally were found in these large MSAs.
- In this geography-oriented look at poverty, organizations that provide support may benefit from seeing the size of populations that live in the most populous areas that may be affected by long-term poverty.


## Future Work and Project Limitations:

- Use of smaller geographic units to create more precision in census tract populations that cross city boundaries.
- This project spatially found $60 \%$ of all persistent poverty census tracts in the most populous MSAs. Future extensions may include investigation in other areas such as smaller metro and micro areas, rural areas, and informal geographic regions (Native American lands, the Southwest border, Appalachia, Mississippi delta, etc.).
- Because census tracts boundaries don't geographically nest within cities like they do in counties, it makes it challenging to identify persistent poverty without using geoprocessing techniques.


## Contact Information - Location of Additional Poverty Data/Publications

- Craig Benson - Survey Statistician, Poverty Statistics Branch, U.S. Census Bureau
- craig.benson@census.gov
- (301) 763-2315
- Poverty reports, including the May 2023 report, from the Census Bureau can be found at https://www.census.gov/topics/income-poverty/poverty.html. This report should be available within a few months on this page.
- The most recent ACS data, including poverty and tables for many other demographic, social, and economic variables, can be found at https://data.census.gov/.

