Using Census Bureau Data to Measure Poverty

Brian Glassman

Branch Chief, Poverty Statistics Branch
Social, Economic and Housing Statistics Division
U.S. Census Bureau

Presentation to the Maryland State Data Center November 6, 2024



This presentation is released to inform interested parties of research and to encourage discussion. Any views expressed are those of the author and not those of the U.S. Census Bureau. The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data used to produce this product (Data Management System (DMS) number: P-7533841, Disclosure Review Board (DRB) approval number: CBDRB-FY25-SEHSD003-001. All comparative statements in this presentation have undergone statistical testing, and, unless otherwise noted, all comparisons are statistically significant at the 90 percent confidence level.

Outline for Today's Talk

- Define poverty
- Discussion of datasets
- Data visualizations



Outline for Today's Talk

- Define poverty
- Discussion of datasets
- Data visualizations



The U.S. Census Bureau releases two poverty measures every year to identify who is poor in the United States.

For both measures, individuals are considered poor if the resources they share with others in the household are not enough to meet basic needs.



But the two measures are very different.





Supplemental Measure







Who shares resources?

The two measures make different assumptions about who shares resources. The SPM assumes that more people in a household share resources with one another.

The official measure of poverty assumes that all individuals residing together who are related by birth, marriage, or adoption share income.



The SPM starts with the family and then adds some unrelated people such as foster children and unmarried partners.





How do we measure needs?

The **poverty threshold**, or **poverty line**, is the minimum level of resources that are adequate to meet basic needs.

The official measure is three times the cost of a minimum food diet from 1963 (in today's prices).



The SPM uses information about what people spend today for basic needs—food, clothing, shelter, utilities, and telecommunications.







Poverty thresholds for both measures are adjusted to reflect the needs of families of different types and sizes. Only the SPM thresholds take account of geographic differences in housing costs.

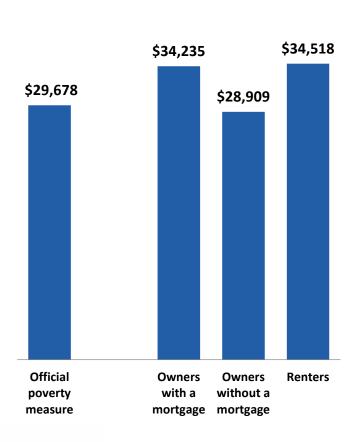
Yes, the official poverty threshold is the same throughout the United States. In 2022, the poverty threshold for a family with two adults and two children was \$29,678.

NO, SPM thresholds vary based on several factors such as place of residence and whether it is a rental unit or purchased property or home with a mortgage. The map on the next slide shows SPM thresholds for renters with two adults and two children in 2022.

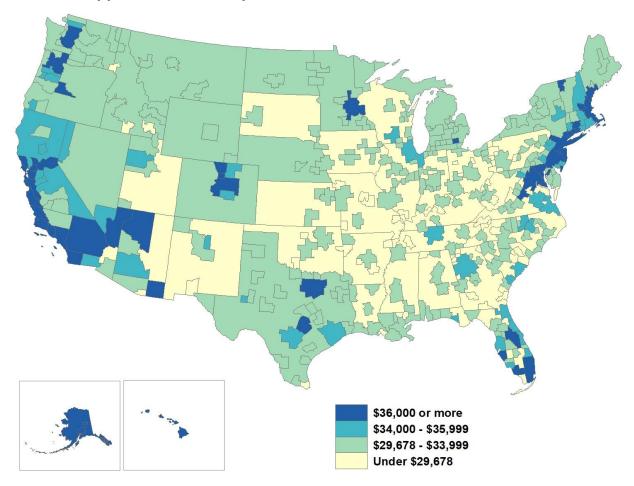


Official and SPM Thresholds for Units with Two Adults and Two Children: 2022

Supplemental Poverty Measure Thresholds: 2022



Supplemental Poverty Measure Thresholds for Renters: 2022





Notes: SPM: Supplemental Poverty Measure.

How the Census Bureau Measures Poverty: Official Poverty

RESOURCES INCLUDE:

- Wages and earnings
- Social Security
- Unemployment
- Retirement
- Interest & dividends
- Public assistance



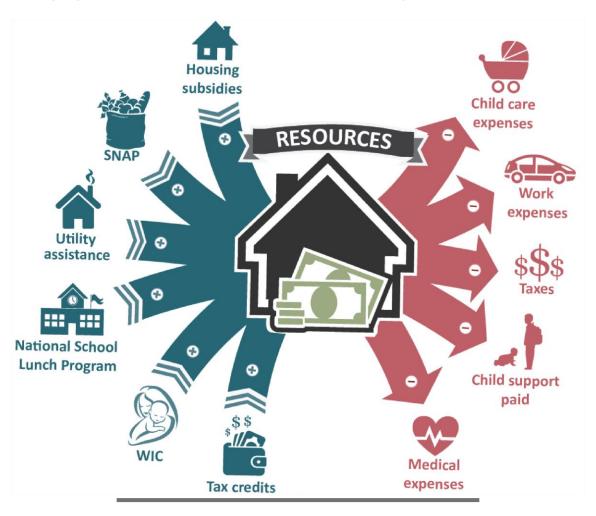
DOES NOT INCLUDE:

- Taxes paid
- Tax credits
- Stimulus payments
- Noncash assistance (SNAP, Medicaid, etc.)

Threshold adjusted for family composition



How the Census Bureau Measures Poverty: Supplemental Poverty Measure





Threshold adjusted for family composition, housing tenure, and geographic variation

When to Use Each Poverty Measure?

Official Poverty Measure	Supplemental Poverty Measure		
Long term trends at national level: data available from 1959 using consistent method	More complete measure of resources: Includes tax credits, government assistance and key expenses		
Program eligibility: Federal and State governments often use official poverty estimates to allocate funds to local communities.	Geographical variation in the poverty threshold.		



Outline for Today's Talk

- Define poverty
- Discussion of Datasets
- Data Visualizations



- CPS ASEC
- ACS
- SIPP
- SAIPE



- CPS ASEC
 - The Current Population Survey (CPS) is the longest running survey conducted by the Census Bureau.
 - The Annual Social and Economic Supplement (ASEC) is collected annually in February, March, and April. The 2023 sample consisted of ~90,000 addresses.
 - As a result of the sample size, 1-year estimates are representative at the national level. 3-year averages are suggested for states.
 - CPS ASEC is the official source of national poverty estimates.



- CPS ASEC
- ACS
 - The American Community Survey (ACS) is a nationwide household survey designed to provide communities with reliable and timely demographic, social, economic, and housing data for the nation, states, congressional districts, counties, places, and other localities every year.
 - It has an annual sample size of about 3.5 million addresses. It is a rolling survey administered throughout the year.
 - 1-year ACS: population>65,000; estimates for 837 counties in 2022.
 - 5-year ACS: estimates for every congressional district, every metropolitan area, all 3,144 counties, all places (i.e., towns or cities), and all census tracts and block groups.



- CPS ASEC
- ACS
- SIPP
 - The Survey of Income and Program Participation (SIPP) is a household based survey beginning in 1983 designed as a continuous series of national panels.
 - It's a longitudinal survey, meaning it follows the same respondents over time.
 - An annual sample size of about 50,000 addresses interviewed between January and June.
 - Allows for measurement of chronic and episodic poverty.
 - Allows for information on monthly poverty and detailed program participation.



- CPS ASEC
- ACS
- SIPP
- SAIPE
 - The Small Area Income and Poverty Estimates (SAIPE) program provides modelbased income and poverty estimates for all states, counties and school districts
 - Poverty rate models based on ACS 1-year data and administrative data.
 - 1995 to 2022
 - All ages, Under age 18, Age 5 to 17 in families, Under age 5
 - The U.S. Department of Education uses SAIPE data to aid in determining annual Title I allocations of federal funds to states and school districts.



When to use each Dataset

If you want	Use	Released annually in	Latest
National official poverty rates and SPM rates	CPS ASEC	September	2023
State and sub-state poverty rates for areas with over 65,000 people	1-year ACS	September (SPM in winter/spring)	2023
State, county, and school district official poverty rates	SAIPE	December	2022
Poverty estimates for all areas regardless of size (No SPM)	5-year ACS	December	2018-2022
Monthly poverty estimates and ability to follow the same people over time (No SPM currently)	SIPP	Early summer	2022



Resources

- Census Poverty: https://www.census.gov/topics/income-poverty/poverty.html
- ACS Data platform
 - https://data.census.gov/cedsci/
 - Persistent Poverty in Counties and Census Tracts
 - https://www.census.gov/library/publications/2023/acs/acs-51.html
- Microdata access
 - https://data.census.gov/mdat/#/
 - https://www.census.gov/programs-surveys/acs/microdata/access.html
 - https://www.census.gov/programs-surveys/sipp/data/datasets.html
- SAIPE estimates
 - https://www.census.gov/data-tools/demo/saipe/#/
 - https://www.census.gov/data/datasets/2022/demo/saipe/2022-state-andcounty.html



Outline for Today's Talk

- Define poverty
- Discussion of datasets
- Data visualizations



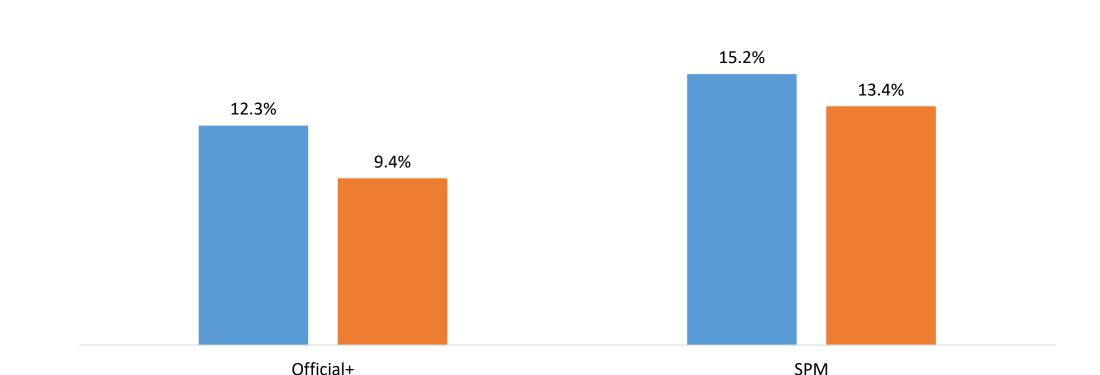
Outline for Today's Talk

- Define poverty
- Discussion of datasets
- Data visualizations
 - https://www.census.gov/data/datasets/time-series/demo/supplemental-poverty-measure/acs-research-files.html)
 - Poverty Universes
 - Official*: All individuals in households; Children under the age of 15 who are not related to the householder are assigned the poverty status of householder; excludes group quarters
 - SPM: All individuals in households; excludes group quarters



Poverty Rates for the United States and Maryland: 2022

U.S.

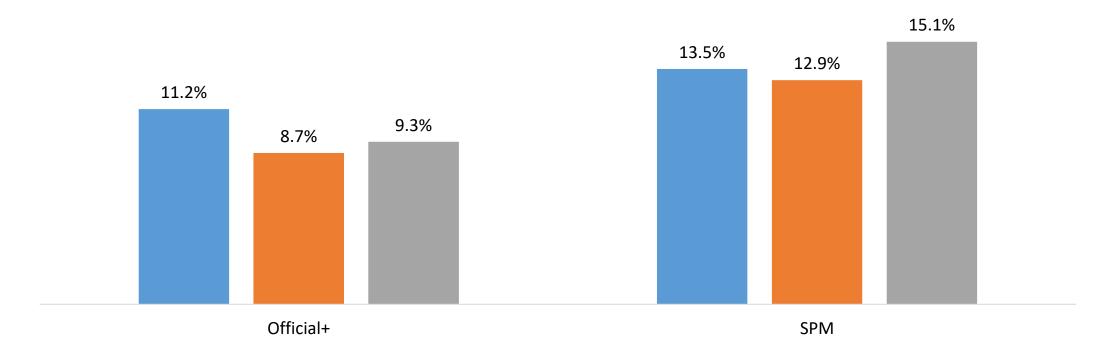


Maryland



Maryland Poverty Rates by Age Group: 2022

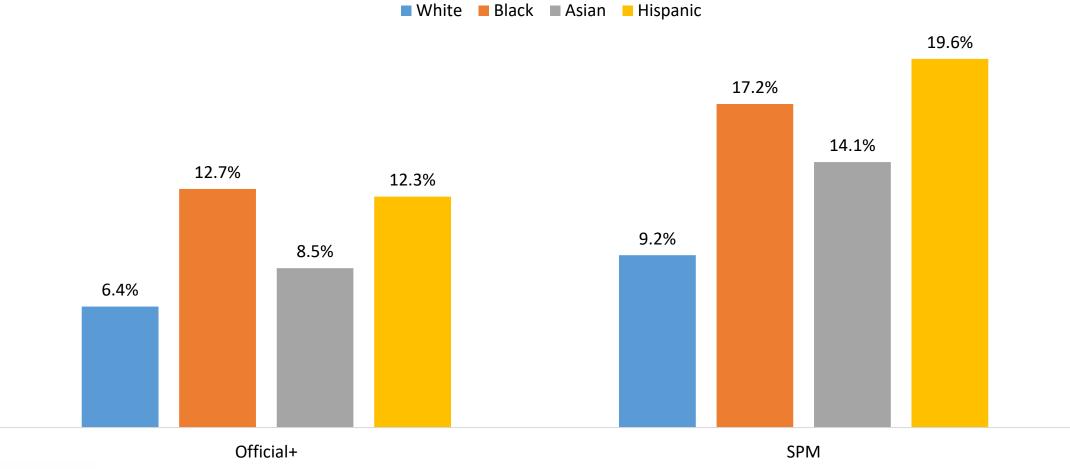
■ Under age 18 ■ Age 18 to 64 ■ Age 65 and over





Source: U.S. Census Bureau, 2022 American Community Survey, 1-year Public Use estimates.

Maryland Poverty Rates by Race and Hispanic Origin: 2022

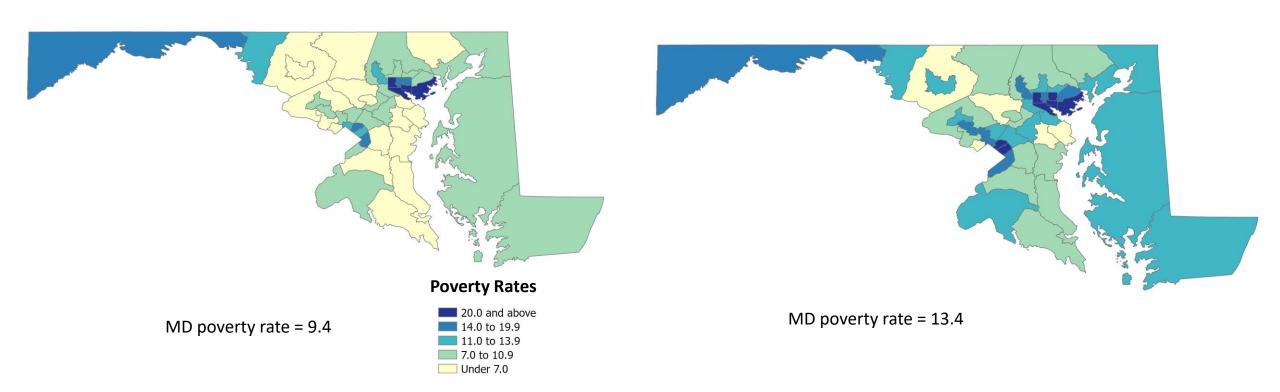




Source: U.S. Census Bureau, 2022 American Community Survey, 1-year Public Use estimates.

Poverty Rates in Maryland by Public Use Microdata Area (PUMA): 2022

Official⁺ SPM



Source: U.S. Census Bureau, 2022 American Community Survey, 1-year Public Use estimates.



Discussion

- We define poverty in two ways at the Census Bureau: Official and SPM
 - There are other ways to measure well-being
 - Multidimensional Deprivation Index (MDI)
 - Gini Index and Income percentile ratios (e.g. 90/10, 50/10)
 - Community Resilience Estimates (CRE)
- ACS used in this presentation
 - Ability to examine by state, PUMA, age groups, and race and Hispanic origin
 - Other datasets available for other purposes
- From ACS public use data: state and PUMA-level estimates
 - Possible to do PUMA to County crosswalk



Thank You!

brian.e.glassman@census.gov

Poverty Statistics Branch Email: sehsd.psb.list@census.gov

