

Name: Below 100% Federal Poverty Level

Short Description: Percentage of individuals below 100% of the federal poverty level.

Data Source:

- **Name:** United States Census Bureau, American Community Survey (ACS)
- **Link to Source:** <https://www.census.gov/programs-surveys/acs/data.html>

Year(s): 2017-2021 (ACS 5-year Estimates)

Source Geographic Level: Zip Code Tabulation Area (ZCTA)

Stratification: Black populations

Selection Rationale: This measure captures the income element of socioeconomic status, one of the main drivers of population health disparities and one of the most common social determinants of health. People with lower incomes may experience higher incidence of mental health and substance use disorders due to stress, and people with mental illnesses and substance use disorders may also experience greater socioeconomic disadvantage.

Strengths and Limitations:

- **Strengths:**
 - *[Importance]* Income level is an important social determinant of health. Having lower levels of income is associated with increased odds of mood disorders, substance use disorders, and suicide attempts.¹ Adults living below the federal poverty level report mental distress 70% more often than do adults in higher income households.² Conversely, people with mental illness experience greater socioeconomic disadvantage in terms of the rate, depth, and severity of poverty.³
 - *[Scientific Soundness]* ACS data provide valid and reliable estimates. This measure is advantageous because it is both simple to calculate and simple to communicate.

¹ Sareen, J., Afifi, T. O., McMillan, K. A., & Asmundson, G. J. G. (2011). Relationship between household income and mental disorders. *Archives of General Psychiatry*, 68(4), 419-427.
<https://doi.org/10.1001/archgenpsychiatry.2011.15>

² Cree, R. A., Okoro, C. A., Zack, M. M., & Carbone, E. (2020). Frequent mental distress among adults, by disability status, disability type, and selected characteristics—United States, 2018. *Morbidity and Mortality Weekly Report*, 69(36), 1238-1243. <http://doi.org/10.15585/mmwr.mm6936a2>

³ Vick, B. C., Jones, K., & Mitra, S. (2012). Poverty and psychiatric diagnosis in the US: Evidence from the medical expenditure panel survey. *Journal of Mental Health Policy and Economics*, 15(2), 83-96.
<https://pubmed.ncbi.nlm.nih.gov/22813941/>

- [Feasibility] This measure is readily available through the United States Census Bureau's ACS, an ongoing survey that provides data in the year immediately following the year in which they are collected.
- **Limitations:**
 - [Relevance and Usability] This measure does not contain information about age, which may impact incidence of serious mental illness. For example, data from the Substance Abuse and Mental Health Services Administration show that the relationship between poverty and serious mental illness may differ between adults aged 26 or older and young adults under age 26.⁴
 - [Equity] This measure identifies those experiencing poverty based only on the federal poverty level, which is defined based on family income and number of persons in household.⁵ However, there are families with incomes above the federally defined poverty level that still experience financial insecurity, and people above 100% of the federal poverty level may still experience higher rates of poor mental health outcomes, like serious psychological distress, that is associated with their income level.⁶ One hundred percent of the federal poverty level was selected because it is the highest percentage that can be stratified for Black populations without a significant amount of missing data.
 - [Scientific Soundness] This measure is self-reported and depends on the accuracy of the person surveyed.

Calculation:

Overall Population:

$$\text{Below 100\% FPL}_{\text{Overall}} = \frac{\text{individuals with income in the past 12 months below poverty level}}{\text{total individuals for whom poverty status is determined}} \times 100\%$$

ACS tables and variables used:

- Table B17021: Poverty Status of Individuals in the Past 12 Months by Living Arrangement:
 - B17021_001: Estimate Total
 - B17021_002: Estimate Total Income in the past 12 months below poverty level

Black Populations:

⁴ Substance Abuse and Mental Health Services Administration. (2016). *The CBHSQ Report: Serious Mental Illness Among Adults Below the Poverty Line*. Department of Health and Human Services.

https://www.samhsa.gov/data/sites/default/files/report_2720/Spotlight-2720.pdf

⁵ Office for the Assistant Secretary for Planning and Evaluation. (2021). *HHS Poverty Guidelines for 2021*. US Department of Health and Human Services. <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines>

⁶ Weissman, J. S., Pratt, L. A., Miller, E. A., & Parker, J. D. (2015). Serious Psychological Distress Among Adults: United States, 2009-2013. *NCHS Data Brief*, (203), 1–8. <https://pubmed.ncbi.nlm.nih.gov/26046826/>

$$\text{Below } 100\% \text{ FPL}_{\text{Black}} = \frac{\text{Black families with income in the past 12 months below poverty level}}{\text{total families with a Black householder for whom poverty status is determined}} \times 100\%$$

ACS tables and variables used:

- Table B17010B: Poverty Status In The Past 12 Months Of Families By Family Type By Presence Of Related Children Under 18 Years By Age Of Related Children (Black Or African American Alone Householder)
 - B17010B_001: Estimate Total
 - B17010B_002: Estimate Total Income in the past 12 months below poverty level