

# Developing A Supplemental Poverty Measure

## Background

Since the introduction of the first official U.S. poverty estimates in the 1960's, researchers, policy makers, and the general public have debated the measure's methodological strengths and policymaking value. In 2009, the Office of Management and Budget formed an Interagency Technical Working Group (ITWG) to consider a new poverty measure that incorporated alternative income definitions and resource thresholds. Their suggestions drew on the recommendations of a 1995 National Academy of Sciences report as well as subsequent research. The U.S. Census Bureau, in cooperation with the Bureau of Labor Statistics (BLS), has since been charged with implementing the suggestions made by the Working Group to develop a Supplemental Poverty Measure (SPM).

## Data and Methods

Estimates are based on the 2010 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) and refer to calendar year 2009. Beginning in 2010, new questions were included in the CPS ASEC to collect information about child care, medical out-of-pocket expenditures, child support paid to other households, and whether a homeowner had a mortgage. Poverty thresholds were developed by the BLS using five years of expenditure data for families with exactly two children as reported in the Consumer Expenditure (CE) Survey. The SPM thresholds used here are for calendar year 2008. They include imputations for many noncash benefits. BLS is calculating the updated 2009 SPM estimates that will be applied when the final 2009 SPM estimates are released. Data from the American Community Survey (ACS) were used to adjust SPM thresholds for housing cost differences across geographic areas. Tax liabilities are calculated through a simulated tax calculator and statistical matches to the American Housing Survey (AHS) and Statistics of Income (SOI) microdata file of tax returns.

## Two Adult, Two Child Poverty Thresholds: 2008

Official	\$21,834
Supplemental Poverty Measure	
Owners with a mortgage	\$25,522
Owners without a mortgage	\$20,426
Renters	\$24,880

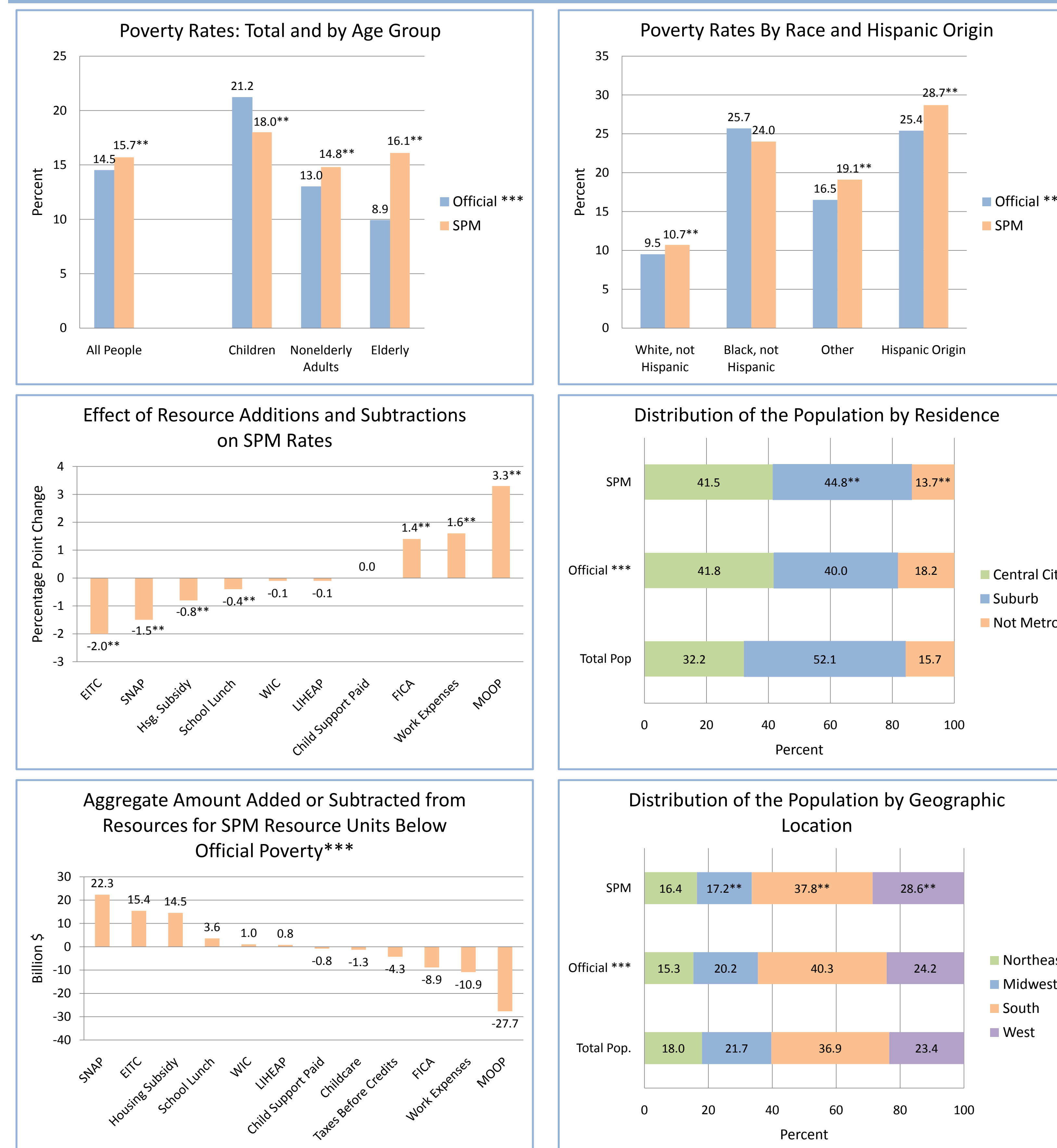
Source: Garner (November, 2010).

## Comparative Design

	Official Poverty Measure	Supplemental Poverty Measure (SPM)
<b>Measurement Unit</b>	<ul style="list-style-type: none"> <li>Families and unrelated individuals</li> </ul>	<ul style="list-style-type: none"> <li>All related individuals who live at the same address, any co-resident unrelated children who are cared for by the family (such as foster children), and any co-habitators and their children are referred to as a single <i>SPM Resource Unit</i></li> </ul>
<b>Resource Measure</b>	<ul style="list-style-type: none"> <li>Gross (before-tax) money income from all sources</li> </ul>	<ul style="list-style-type: none"> <li>Gross (before tax) money income from all sources</li> <li>PLUS value of near-money federal in-kind benefits for food, clothing, and shelter including utilities (i.e., SNAP, housing subsidies, LIHEAP) and tax credits (EITC)</li> <li>MINUS income and payroll taxes and other nondiscretionary expenses (i.e., child care, other work-related expenses, child support payments, medical out-of-pocket (MOOP) expenses)</li> </ul>
<b>Poverty Threshold</b>	<ul style="list-style-type: none"> <li>Cost of minimum food diet for a two adult, two child family in 1963</li> <li>Multiplied by three to cover all other expenses</li> </ul>	<ul style="list-style-type: none"> <li>33rd percentile of all consumer units with exactly two children from the most recent five years expenditures on food, clothing, and shelter including utilities (FCSU)</li> <li>Multiplied by 1.2 to cover all other expenses</li> </ul>
<b>Threshold Adjustments</b>	<ul style="list-style-type: none"> <li>Vary by size of family, number of children, and ages of adults</li> </ul>	<ul style="list-style-type: none"> <li>Two adult, two child threshold adjusted using a three parameter equivalence scale</li> <li>Adjust for geographic housing cost differences using five year ACS data on rental costs with adjustments by each Metropolitan Statistical Area (MSA) and non-MSAs in each state</li> <li>Separate thresholds for renters, owners with a mortgage, and owners without a mortgage</li> </ul>
<b>Updating Mechanism</b>	<ul style="list-style-type: none"> <li>Update 1963 threshold for price changes with the Consumer Price Index (CPI-U)</li> </ul>	<ul style="list-style-type: none"> <li>Recalculate thresholds each year using latest five year expenditure data from the CE survey</li> <li>Regularly recalculate geographic cost adjustment</li> </ul>

The views expressed in this research, including those related to statistical, methodological, technical, or operational issues, are solely those of the author and do not necessarily reflect the official positions or policies of the Census Bureau, or the views of other staff members within these agencies. The author accepts responsibility for all errors. This poster is released to inform interested parties of ongoing research and to encourage discussion of work in progress. The estimates in this poster are based on responses from a sample of the population and may differ from actual values because of sampling variability or other factors. Standard errors were calculated using replicate weights. Further information about the source and accuracy of the estimates is available at [www.census.gov/apsd/techdoc/cps/cpsmar10.pdf](http://www.census.gov/apsd/techdoc/cps/cpsmar10.pdf).

## Preliminary Comparisons\*



\* Source: Short (January, 2011).  
 \*\* Indicates a statistically significant difference compared to the official poverty estimate at the 90% confidence level.  
 \*\*\* The income, official poverty thresholds, and SPM resource data refer to calendar year 2009, while the SPM thresholds are for 2008. The poverty rates for the "official measure" do not match the published official poverty rates because estimates in this table use an extended poverty universe that includes unrelated individuals under the age of 15. The "official" poverty rate published in 2009 (14.3%) increased to 14.5% under this new universe definition.

## Outcomes and Implications

In comparing the "official" poverty measure and the SPM, we find:

- Overall poverty rates are HIGHER under the SPM.
- Poverty rates are LOWER for children using the SPM but are HIGHER for both nonelderly and elderly adults.
- Poverty rates are HIGHER for White non-Hispanics, "Other" race categories, and individuals reporting Hispanic Origin but are LOWER for Black non-Hispanics.
- The share of the persons in poverty living in nonmetropolitan areas, the South, and the Midwest is SMALLER using the SPM than the official measure. The share of persons in poverty living in the suburbs, the Northeast, and the West is LARGER using the SPM than the official measure.

When observing the effects of taxes, transfers, and nondiscretionary expenses, we find:

- The Earned Income Tax Credit (EITC) is a key mechanism moving resources above the SPM poverty thresholds.
- The subtraction of medical out-of-pocket (MOOP) expenses from income pushes resources below the SPM poverty thresholds for many individuals.
- The largest resource additions for lower income SPM Resource Units were from the Supplemental Nutrition Assistance Program (SNAP) while the largest resource subtractions were from MOOP expenditures.

## Bibliography

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