Presenters

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Poverty Measures for the United States

Kathleen S. Short, PhD

Webinar
The Council of State Governments
October 1, 2013
The views expressed in this research, including those related to statistical, methodological, technical, or operational issues, are solely those of the authors and do not necessarily reflect the official positions or policies of the Census Bureau. The author accepts responsibility for all errors.

This paper is released to inform interested parties of ongoing research and to encourage discussion of work in progress. This paper reports the results of research and analysis undertaken by Census Bureau staff. It has undergone more limited review than official publications.
**Official Poverty Measure**

- First adopted in 1969
- Continues under OMB Statistical Directive 14
- The 2011 official poverty rate for the nation was 15.0 percent.
- Not changed from 2010
- 46.2 million people in poverty
The official measure does not account for

• Provision of in-kind benefits
• Necessary expenses (taxes, health care, work)
• Changes in family or household structure
• Higher standards and levels of living since 1965
• Geographic price differences among regions

Recommended Changes to Improve the Measure of Poverty in the U.S.

http://www.census.gov/hhes/povmeas/methodology/nas/report.html
Supplemental Poverty Measure (SPM)

Observations from the Interagency Technical Working Group - March 2, 2010

• Will not replace the official poverty measure
• Will not be used for resource allocation or program eligibility
• Census Bureau and BLS responsible for improving and updating the measure
• Continued research and improvement
• Based on National Academy of Sciences expert panel recommendations Measuring Poverty: A New Approach (Citro and Michael, 1995)

INTRODUCTION

Last year the U.S. Census Bureau, with support from the Bureau of Labor Statistics (BLS), released the first report describing research on the Supplemental Poverty Measure (SPM). The SPM extends the information provided by the official poverty measure by including many of the government programs designed to assist low income families and individuals that are not included in the current official poverty measure. The current official poverty measure was developed in the early 1960s, and only a few minor changes have been implemented since it was first adopted in 1965 (Schmansky, 1965; 1965a; 1965b; Fisher, 1992). The official measure consists of a set of thresholds for families of different sizes and compositions that are compared to before-tax cash income to determine a family’s poverty status. At the time they were developed, the official poverty thresholds represented the cost of a minimum diet multiplied by three (to allow for expenditures on other goods and services).

Economic Unit of Analysis

Official

• Families or unrelated individuals

Supplemental

• 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-habitors and their relatives
Comparing the Official measure and SPM Threshold Concept

**Official Measure**

- Cost of minimum food diet for a two adult/two child family in 1963 times three to cover all other expenses

**Supplemental Measure**

- Expenditures over the most recent 5 years on food, clothing, and shelter (including utilities and all mortgage expenses) (FCSU) from the Consumer Expenditure Surveys
  - Range around 33rd percentile
  - all family units with exactly 2 children
    - adjusted, when needed, to be equivalent to 2 adult/2 child family unit
  - plus 20 percent to cover all other expenses.
Threshold Adjustments: by shelter type

Official
• No adjustments

Supplemental
• Adjust by distinguishing differences in shelter expenditures by renters, owners with a mortgage, and owners without a mortgage
Threshold Adjustments: family size and composition

**Official**
- Separately developed thresholds by family type; lower thresholds for elderly singles and couples

**Supplemental**
- Reference family threshold adjusted by use of a three parameter equivalence scale, which assumes children need less than adults and economies of scale for larger families
Threshold Adjustments: by geographic area

**Official**
- No adjustments

**Supplemental**
- Adjust for housing cost differences using five years of ACS data on rental costs
- Make adjustments by MSA and non-MSAs in each state
- Continue to research inter-area price indices
Official and SPM Thresholds for 2 Adults and 2 Children Economic Units: 2011

Supplemental Poverty Thresholds

<table>
<thead>
<tr>
<th>Category</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official</td>
<td>$22,811</td>
</tr>
<tr>
<td>Owners with a mortgage</td>
<td>$25,703</td>
</tr>
<tr>
<td>Owners without a mortgage</td>
<td>$21,175</td>
</tr>
<tr>
<td>Renters</td>
<td>$25,222</td>
</tr>
</tbody>
</table>
Official and Research SPM Thresholds for Two Adult, Two Child Units with Geographic Adjustments: 2011

- Official Threshold: 22,811
- SPM Renter: 25,222
- DC MSA Renter: 32,057
- Oklahoma metro remainder - owner no mortgage: 17,718
- San Jose-Sunnyvale-Santa Clara - owner with mortgage: 35,151
**Official**

- Gross (before-tax) cash income from all sources

**Supplemental**

- Gross (before-tax) cash income

- PLUS value of noncash federal benefits for FCSU
  - SNAP, school lunch, WIC
  - Housing subsidies
  - LIHEAP
  - Tax credits (EITC)

- MINUS nondiscretionary expenses
  - Taxes, state and federal income taxes and payroll taxes (FICA)
  - Medical out-of-pocket expenses (MOOP)
  - Work related expenses, commuting and childcare while working
  - Child support paid
Figure 1: Poverty rates using two measures for total population and by age group: 2011

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Official**</th>
<th>SPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>All People</td>
<td>15.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Under 18 years</td>
<td>22.3</td>
<td>18.1</td>
</tr>
<tr>
<td>18 to 64 years</td>
<td>13.7</td>
<td>15.5</td>
</tr>
<tr>
<td>65 years and older</td>
<td>8.7</td>
<td>15.1</td>
</tr>
</tbody>
</table>

**Includes unrelated individuals under age 15.
Figure 4: Distribution of people by income-to-threshold ratios: 2011

** Includes unrelated individuals under age 15.
State level estimates

- Use the ACS
- Three year averages from CPS
- SPM estimates for 2009-2011 available
- Compare OPM to SPM for states
  - 14 states higher with SPM
  - 26 states lower
  - 10 not statistically different
- California higher 7.3 percentage points – from OPM 16.3 % to SPM 23.5 %
Figure 4.
Difference in Poverty Rates by State using the Official Measure and the SPM: Three-year average 2009 - 2011

### Difference in SPM rate after including each element

<table>
<thead>
<tr>
<th></th>
<th>Percentage point difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Security Tax Refundable Tax Credits</td>
<td>-8.3</td>
</tr>
<tr>
<td>SNAP</td>
<td>-2.9</td>
</tr>
<tr>
<td>Unemployment Insurance</td>
<td>-1.6</td>
</tr>
<tr>
<td>SSI</td>
<td>-1.1</td>
</tr>
<tr>
<td>Housing Subsidies</td>
<td>-1.1</td>
</tr>
<tr>
<td>Child Support Received</td>
<td>-0.9</td>
</tr>
<tr>
<td>School Lunch</td>
<td>-0.4</td>
</tr>
<tr>
<td>TANF/General Assistance</td>
<td>-0.3</td>
</tr>
<tr>
<td>WIC</td>
<td>-0.1</td>
</tr>
<tr>
<td>LIHEAP</td>
<td>-0.1</td>
</tr>
<tr>
<td>Child Support Paid</td>
<td>0.1</td>
</tr>
<tr>
<td>Federal Income Tax</td>
<td>0.5</td>
</tr>
<tr>
<td>FICA</td>
<td>1.3</td>
</tr>
<tr>
<td>Work Expense</td>
<td>1.7</td>
</tr>
<tr>
<td>MOOP</td>
<td>3.4</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Element</th>
<th>Difference</th>
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<tr>
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</tr>
<tr>
<td>Work Expense</td>
<td>3.4</td>
</tr>
</tbody>
</table>

23
Difference in SPM rates after including each element

Percentage point difference

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Children</th>
<th>65 years and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refundable tax credits</td>
<td>-6.2</td>
<td>-0.2</td>
</tr>
<tr>
<td>SNAP</td>
<td>-2.8</td>
<td>-0.7</td>
</tr>
<tr>
<td>Unemployment insurance</td>
<td>-1.3</td>
<td>-0.4</td>
</tr>
<tr>
<td>SSI</td>
<td>-0.8</td>
<td>-1.3</td>
</tr>
<tr>
<td>Housing subsidies</td>
<td>-1.4</td>
<td>-1.2</td>
</tr>
<tr>
<td>Child support received</td>
<td>-1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>School lunch</td>
<td>-0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>TANF/General Assistance</td>
<td>-0.6</td>
<td>0.0</td>
</tr>
<tr>
<td>WIC</td>
<td>-0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>LIHEAP</td>
<td>-0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Child support paid</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Federal income tax</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>FICA</td>
<td>1.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Work expense</td>
<td>2.2</td>
<td>0.3</td>
</tr>
<tr>
<td>MOOP</td>
<td>2.8</td>
<td>7.0</td>
</tr>
</tbody>
</table>
Contact:

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U.S. Census Bureau
kathleen.s.short@census.gov
EPI Family Budget Calculator

Elise Gould

Director of Health Policy and Research
Economic Policy Institute
EPI Family Budgets:

• Measure the income families need to secure an adequate but modest standard of living
• A broader measure of economic welfare
• Provides an additional metric for academics and policy experts looking for comprehensive measures of economic security and cost of living adjuster across communities.
• Useful for policy makers considering the implications of business development and other local labor growth for their community
Context

• Developed initially in 2000 to fill the void the BLS left when their program, which published measures of a ‘modest but adequate’ lifestyle, was discontinued

• Six family types: from 1 parent, 1 child to 2 parents, 3 children

• Estimate community-specific costs of housing, food, child care, transportation, health care, other necessities, and taxes
Methodology (1/3)

- **Housing.** Housing costs are based on the Department of Housing and Urban Development's fair market rents (HUD 2013). The costs represent rents at the 40th percentile for privately owned, structurally safe, and sanitary rental housing of a modest nature with suitable amenities.

- **Food.** Food costs reflect the second-least expensive plan taken from the Department of Agriculture report *Official USDA Food Plans* (USDA 2013). This plan assumes almost all food is bought at the grocer and then prepared at home.

- **Child care.** Child care expenses reflect the cost of center-based child care for four-year-olds and school-age children, in urban and rural areas by state, as reported by the Child Care Aware of America.
Methodology (2/3)

- **Transportation.** Transportation expenses reflect the costs of owning and operating a car for work and other necessary trips, using the National Household Travel Survey. The cost per mile is provided by the Internal Revenue Service (IRS 2012).

- **Health care.** Health care expenses have two components: insurance premiums and out-of-pocket expenditures. Premiums are based on total employer-sponsored health insurance premiums using the Medical Expenditure Panel Survey Insurance Component and the Bureau of Labor Statistics Employee Benefits. Out-of-pocket medical expenditures are calculated for adults and children separately by region and are differentiated by area for those with employer-sponsored health insurance (HHS 2013a).
Methodology (3/3)

• **Other necessities.** EPI’s basic family budgets include the costs of other necessities such as clothing, personal care expenses, household supplies, reading materials, school supplies, and other miscellaneous items of necessity from the Bureau of Labor Statistics Consumer Expenditure Survey (BLS 2013a).

• **Taxes:** Taxes are calculated with the National Bureau of Economic Research’s Internet TAXSIM (NBER 2013). Using post tax income from the previous spending categories, we back out information on federal personal income taxes, state income taxes, and federal Social Security and Medicare payroll taxes.
FIGURE A

Monthly family budgets in St. Louis, Mo., by family type, 2013 (2012 dollars)

Source: Authors' analysis of Economic Policy Institute Family Budget Calculator

ECONOMIC POLICY INSTITUTE

www.epi.org
FIGURE B

Annual family budgets for four-person families* in selected areas, 2013 (2012 dollars)

<table>
<thead>
<tr>
<th>City</th>
<th>Budget 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York, N.Y.</td>
<td>$93,502</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>$88,615</td>
</tr>
<tr>
<td>Boston, Mass.</td>
<td>$85,641</td>
</tr>
<tr>
<td>Philadelphia, Pa.</td>
<td>$77,293</td>
</tr>
<tr>
<td>Milwaukee, Wis.</td>
<td>$73,329</td>
</tr>
<tr>
<td>Seattle, Wash.</td>
<td>$70,025</td>
</tr>
<tr>
<td>Chicago, Ill.</td>
<td>$69,028</td>
</tr>
<tr>
<td>Detroit, Mich.</td>
<td>$66,896</td>
</tr>
<tr>
<td>St. Louis, Mo.</td>
<td>$64,332</td>
</tr>
</tbody>
</table>

* Four-person families assume two parents and two children.

Source: Authors’ analysis of Economic Policy Institute Family Budget Calculator
FIGURE C

Variation in the components of family budgets for four-person families, * by geographic area, 2013

New York City
- Taxes: 10.0%
- Housing: 18.9%
- Health care: 20.9%
- Transportation: 7.4%
- Child care: 25.7%
- Food: 9.7%
- Other necessities: 7.3%

Milwaukee
- Taxes: 8.1%
- Housing: 13.5%
- Health care: 24.5%
- Transportation: 9.0%
- Child care: 25.0%
- Food: 12.3%
- Other necessities: 6.6%

Seattle
- Taxes: 5.7%
- Housing: 18.9%
- Health care: 24.7%
- Transportation: 10.4%
- Child care: 19.2%
- Food: 12.9%
- Other necessities: 8.1%

* Four-person families assume two parents and two children.

Source: Authors' analysis of Economic Policy Institute Family Budget Calculator
EPI Family budgets compared to the FPL and the SPM

• The official poverty measure (FPL) has no geographic variation and is outdated (e.g. spending on items such as housing and medical care take up a larger share of family budgets today) —however, it is the only historical series available and it provides an important yardstick for many welfare programs.

• The SPM improves on the FPL by providing state and MSA measures (allowing the housing component to vary geographically), and provides more in depth analysis on policy implications (e.g., EITC, SNAP)

• EPI Family budgets use geographic variability in constructing most components, measures items differently (e.g. child care costs), and constructs family budgets for smaller geographic areas.
Federal Poverty Level and EPI Family Budgets in various parts of the country

Source: Author’s analysis of EPI Family Budgets and Current Population Survey Annual Social and Economic Supplement
Family Budget Calculator

EPI's Family Budget Calculator measures the income a family needs in order to attain a secure yet modest living standard by estimating community-specific costs of housing, food, child care, transportation, health care, other necessities, and taxes. The budgets, updated for 2013, are calculated for 615 U.S. communities and six family types (either one or two parents with one, two, or three children).

As compared with official poverty thresholds such as the federal poverty line and Supplemental Poverty Measure, EPI's family budgets offer a higher degree of geographic customization and provide a more accurate measure of economic security. In all cases, they show families need more than twice the amount of the federal poverty line to get by.

Family Type:
- One Parent, One ...

State:
- AK

Area Name:
- Anchorage, AK H...

MONTHLY COSTS

for a family with

and

in — , —

HOUSING

FOOD

CHILD CARE

TRANSPORTATION

HEALTH CARE

OTHER NECESSITIES

TAXES

MONTHLY TOTAL

ANNUAL TOTAL
EPI Family Budget Calculator:

http://www.epi.org/resources/budget/

<table>
<thead>
<tr>
<th>Monthly Costs</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing</strong></td>
<td>$1,890</td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td>$921</td>
</tr>
<tr>
<td><strong>Child Care</strong></td>
<td>$2,114</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>$607</td>
</tr>
<tr>
<td><strong>Health Care</strong></td>
<td>$1,638</td>
</tr>
<tr>
<td><strong>Other Necessities</strong></td>
<td>$720</td>
</tr>
<tr>
<td><strong>Taxes</strong></td>
<td>$1,115</td>
</tr>
<tr>
<td><strong>Monthly Total</strong></td>
<td>$9,005</td>
</tr>
<tr>
<td><strong>Annual Total</strong></td>
<td>$108,055</td>
</tr>
</tbody>
</table>
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Professor of Public Affairs
La Follette School of Public Affairs
at the University of Wisconsin–Madison

Director of the Institute for Research on Poverty
Measuring State Poverty and Policy Impacts in Wisconsin

Tim Smeeding
Director and Professor of Public Affairs and Economics for
"Who's Poor? Measuring Poverty in the States"

The Council of State Governments
October 1, 2013
Poverty Trends in Wisconsin

Figure 1. Wisconsin Poverty Rates under Three Measures, 2008–2011


Notes: Market income includes earnings, investment income, private retirement income, child support, and other forms of private income. Both the market-income measure and the WPM are based on the WPM thresholds, definition of family unit, and treatment of work and medical expenses, which differ from the thresholds and methodologies of the official measure, as described in the methods section below.
Policy Levers for Fighting Poverty

Figure 7. Effects of Taxes, Public Benefits, and Expenses on Overall Poverty in Wisconsin, 2008–2011


Note: SNAP = Supplemental Nutrition Assistance Program.
The Council of State Governments

Capitol Ideas Webinar Series:
Alternative Poverty Measures

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