IRP Webinar:
An Intelligent Consumer’s Guide to Poverty Measurement

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Disclaimers

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Objectives of the Webinar

• Introduction to the issues involved in poverty measurement (Tim Smeeding)
• The measures used by the federal government, officially, and for research (Kathleen Short)
• A state and a policy perspective, via the *Wisconsin Poverty Report* (Tim Smeeding)
• Question and Answer
To Begin. . .

• Poverty is a **social indicator**, a status at a point in time, where we define **who is poor**?

• **Why people are poor is more difficult** and challenging, as are the mechanisms that “cause” poverty

• **Poverty measurement** is an inexact science— but it always involves comparison of economic needs to resources

• A few **concepts of poverty measurement** provide a good overview
In this webinar we will focus on the shaded boxes.
The Poverty Measures We Present Here

• Quantitative
• Income-based measures of resources
• Relative, absolute, and anchored measures of need, each appropriate to the income resource definition
• Measures rely primarily on two national datasets: the CPS and ACS
• International comparisons are not included
• The 2012 official poverty rate for the nation was 15.0 percent
• There were 46.5 million people in poverty.
The Official Measure

The United States has an official measure of poverty. The current official poverty measure was developed in the early 1960s when President Lyndon Johnson declared war on poverty. This measure does not reflect the key government policies enacted since that time to help low-income individuals meet their needs.

Poverty Rate: 1959 to 2012

Note: The data points are placed at the midpoints of the respective years.
Supplemental Poverty Measure (SPM)

Observations from the Interagency Technical Working Group (ITWG) - 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
National Academy of Sciences
Panel on Poverty and Family Assistance


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.
The Research SUPPLEMENTAL POVERTY MEASURE: 2010
Consumer Income

INTRODUCTION
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 1963 (Chambers, 1963, 1965a, 1965b; Fishel, 1992). This 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 minimal level of living, adjusted for size and composition by the Census Bureau (1975).

Concerns about the adequacy of the official measure have increased during the past decade (Ruggles, 1989), culminating in a congressional appropriation in 1990 for an independent study of the conceptual, measurement methods, and information needs for a poverty measure. In response, the National Academy of Sciences (NAS) established the Panel on Poverty and Family Assistance, which released its report titled Measuring Poverty: A New Approach in the spring of 1995 (Citera and Michael, 1995). Based on its assessment of the weaknesses of the current poverty measure, this NAS panel identified several major weaknesses of the current poverty measure:

- The current poverty measures are based on account variations across groups, population proportions, or income levels, which may not reflect the costs of changes in government benefits and taxes that alter the disposable income available to families.
- Their poverty thresholds are based on a fixed set of assumptions, such as the fixed cost of a minimal level of living, adjusted for size and composition by the Census Bureau (1975).
- The current poverty measures are based on the concept of poverty as a level of income below which a family is unable to meet its basic needs for food, clothing, shelter, and utilities.
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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.

**Official Measure**

**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 uses three times the cost of a minimum food diet in 1963 in today’s prices.

The SPM uses information about what people spend today for basic needs—food, clothing, shelter, and utilities.
Are needs the same in New York and Mississippi?

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.

2012 Official Poverty Thresholds
(Two Adults and Two Children)

$22,283


2012 SPM Poverty Thresholds for Renters
(Two Adults and Two Children)

Official and SPM Thresholds: 2011 and 2012

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Official</td>
<td>$22,811</td>
<td>$25,784</td>
<td>$23,283</td>
<td>$25,105</td>
</tr>
<tr>
<td>Owners with a Mortgage</td>
<td>$25,703</td>
<td>$21,175</td>
<td>$25,222</td>
<td></td>
</tr>
<tr>
<td>Owners without a mortgage</td>
<td>$21,175</td>
<td>$21,400</td>
<td>$25,105</td>
<td></td>
</tr>
<tr>
<td>Renters</td>
<td>$25,222</td>
<td></td>
<td>$25,105</td>
<td></td>
</tr>
</tbody>
</table>
What resources do people have to meet their needs?

What we count as available resources differs between the two poverty measures.

The official measure uses cash income, such as wages and salaries, Social Security benefits, interest, dividends, pension or other retirement income.

The SPM starts with cash income, then...

**ADDING BENEFITS**

The SPM adds benefits from the government that are not cash but help families meet their basic needs.

- Housing subsidies
- SNAP
- Low-income home energy assistance (LIHEAP)
- National school lunch program
- WIC

**SUBTRACTING EXPENSES**

The SPM subtracts necessary expenses like taxes, health care, commuting costs for all workers, and child care expenses while parents work.

- Child care expenses
- Expenses related to work
- Taxes
- Child support paid
- Medical out-of-pocket expenses (MOOP)
### Adding Up All Additions and Subtractions Not Included in the Official Measure Across All SPM Family Groups: 2012

<table>
<thead>
<tr>
<th>Program</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNAP</td>
<td>40.3</td>
</tr>
<tr>
<td>School lunch</td>
<td>10.7</td>
</tr>
<tr>
<td>WIC</td>
<td>3.1</td>
</tr>
<tr>
<td>Housing subsidy/cap</td>
<td>21.4</td>
</tr>
<tr>
<td>LIHEAP</td>
<td>1.6</td>
</tr>
<tr>
<td>Ref. tax credits</td>
<td>60.8</td>
</tr>
<tr>
<td>+/-</td>
<td>0.0</td>
</tr>
<tr>
<td>Taxes before credits</td>
<td>-996.8</td>
</tr>
<tr>
<td>FICA</td>
<td>-389.0</td>
</tr>
<tr>
<td>Work expenses</td>
<td>-233.9</td>
</tr>
<tr>
<td>Childcare</td>
<td>-42.7</td>
</tr>
<tr>
<td>MOOP</td>
<td>-508.0</td>
</tr>
<tr>
<td>Child support paid</td>
<td>-18.1</td>
</tr>
</tbody>
</table>

Note: The table includes the following programs: SNAP (Supplemental Nutrition Assistance Program), WIC (Women, Infants, and Children), Housing subsidy/cap (Housing subsidy per capita), LIHEAP (Low-Income Home Energy Assistance Program), Ref. tax credits (Refundable tax credits), Taxes before credits, FICA (Federal Insurance Contributions Act), Work expenses, Childcare, MOOP (Making Work Pay), Child support paid.
Adding up All Additions and Subtractions Not Included in the Official Measure Across SPM Units Classified as Official Poor: 2012

<table>
<thead>
<tr>
<th></th>
<th>Billion $</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNAP</td>
<td>27.7</td>
</tr>
<tr>
<td>School lunch</td>
<td>4.4</td>
</tr>
<tr>
<td>WIC</td>
<td>1.7</td>
</tr>
<tr>
<td>Housing subsidy/cap</td>
<td>16.6</td>
</tr>
<tr>
<td>LIHEAP</td>
<td>0.8</td>
</tr>
<tr>
<td>Ref. tax credits</td>
<td>23.2</td>
</tr>
<tr>
<td>+/-</td>
<td>-4.3</td>
</tr>
<tr>
<td>Taxes before credits</td>
<td>-7.6</td>
</tr>
<tr>
<td>FICA</td>
<td>-13.7</td>
</tr>
<tr>
<td>Work expenses</td>
<td>-1.9</td>
</tr>
<tr>
<td>Childcare</td>
<td>-33.1</td>
</tr>
<tr>
<td>MOOP</td>
<td>-1.3</td>
</tr>
<tr>
<td>Child support paid</td>
<td>-1.3</td>
</tr>
</tbody>
</table>
Official vs. SPM Poverty Rates: 2012

- Total Population:
  - Official: 16
  - SPM: 15.1

- Children:
  - Official: 18
  - SPM: 22.3

- Nonelderly Adults:
  - Official: 13.7
  - SPM: 15.5

- 65+:
  - Official: 9.1
  - SPM: 14.8

**Note:** Official poverty rates are represented by blue bars, SPM poverty rates by red bars.
Figure 4.
Difference in Poverty Rates by State Using the Official Measure and the SPM: 3-Year Average, 2010–2012

Poverty Rates

• For most groups, SPM rates are higher than official poverty rates.
• The SPM shows lower poverty rates for
  – Children
  – Individuals included in new SPM resource units
  – Blacks
  – Individuals living outside metropolitan areas
  – Individuals living in the Midwest
  – Individuals covered by only public health insurance
  – Individuals with a disability
• Official and SPM poverty rates for people in female householder units, native born citizens, renters, and residents of the South were not statistically different
Effect of Including Individual Elements on Number of SPM Poor: 2012

People kept out of poverty by ...
- Social Security
- Refundable tax credits
- Supplemental Nutrition Assistance Program
- Supplemental Security Income
- Housing subsidies
- Unemployment compensation
- Child support received
- School lunch
- Public assistance
- Women, Infants, and Children
- Workers compensation
- Low Income Home Energy Assistance Program

People falling into poverty due to ...
- Medical out of pocket
- Work expenses
- Federal Insurance Contributions Act
- Federal income tax
- Child support paid

A person may receive more than one of the above benefits and may have more than one of the above expenses.
Third poverty measure

• Relative income poverty measure
• OECD
• Unit of analysis = household
• Equivalence scale = square root of household size
• Disposable income = Y – t
• Threshold = 50% of median household disposable income
  ○ $31,060 for 2012
Absolute Poverty vs. Income Growth

Poverty Rate 1960 -- 2010: Official Poverty Rates and Ratio of Poverty Line to Median Income Across Recessions
Poverty rates: OECD Social Indicators

[Bar chart showing poverty rates for various countries, with the United States, Chile, and Israel among the lowest, and Mexico among the highest.]
Poverty rates using three measures: Total and by age group: 2012

Official*, Research SPM, Relative Poverty

<table>
<thead>
<tr>
<th>Category</th>
<th>Official*</th>
<th>Research SPM</th>
<th>Relative Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>All People</td>
<td>15.1</td>
<td>16.0</td>
<td>18.5</td>
</tr>
<tr>
<td>Under 18 years</td>
<td>22.3</td>
<td>18.0</td>
<td>23.5</td>
</tr>
<tr>
<td>18 to 64 years</td>
<td>13.7</td>
<td>15.5</td>
<td>16.6</td>
</tr>
<tr>
<td>65 years and older</td>
<td>9.1</td>
<td>14.8</td>
<td>19.0</td>
</tr>
</tbody>
</table>
Distribution of people by Resources to Poverty Thresholds Ratio 2012

<table>
<thead>
<tr>
<th>Official*</th>
<th>SPM</th>
<th>Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.7</td>
<td>18.2</td>
<td>14.4</td>
</tr>
<tr>
<td>30.0</td>
<td>34.6</td>
<td>35.6</td>
</tr>
<tr>
<td>9.6</td>
<td>14.2</td>
<td>14.7</td>
</tr>
<tr>
<td>9.6</td>
<td>17.0</td>
<td>16.7</td>
</tr>
<tr>
<td>8.4</td>
<td>10.8</td>
<td>12.3</td>
</tr>
<tr>
<td>6.7</td>
<td>5.2</td>
<td>6.2</td>
</tr>
</tbody>
</table>

- 4 or more
- 2.0 to 3.99
- 1.5 to 1.99
- 1.0 to 1.49
- 0.5 to 0.99
- less than 0.5

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Distribution of Children by Resources to Poverty Thresholds Ratio 2012

Official* SPM Relative

<table>
<thead>
<tr>
<th>Resources to Poverty Thresholds</th>
<th>4 or more</th>
<th>2.0 to 3.99</th>
<th>1.5 to 1.99</th>
<th>1.0 to 1.49</th>
<th>0.5 to 0.99</th>
<th>less than 0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official*</td>
<td>26.9</td>
<td>29.0</td>
<td>10.4</td>
<td>11.5</td>
<td>12.0</td>
<td>10.3</td>
</tr>
<tr>
<td>SPM</td>
<td>11.7</td>
<td>32.7</td>
<td>16.3</td>
<td>21.4</td>
<td>13.3</td>
<td>4.7</td>
</tr>
<tr>
<td>Relative</td>
<td>9.7</td>
<td>31.7</td>
<td>15.2</td>
<td>19.9</td>
<td>14.7</td>
<td>8.7</td>
</tr>
</tbody>
</table>
Poverty Rates using the Official Measure, the SPM and Relative Income Measure: 2009 to 2012

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official</td>
<td>14.5</td>
<td>15.3</td>
<td>15.1</td>
<td>15.1</td>
</tr>
<tr>
<td>SPM</td>
<td>15.1</td>
<td>15.9</td>
<td>16.1</td>
<td>16.0</td>
</tr>
<tr>
<td>Relative</td>
<td>17.6</td>
<td>18.3</td>
<td>18.2</td>
<td>18.5</td>
</tr>
</tbody>
</table>

How Programs to Help Poor in the U.S. (and Wisconsin) Have Changed

Annual Expenditures, Means-Tested Programs
(Billions of 2010 Dollars)
Continued Research on SPM

The Interagency Technical Working Group laid out a research agenda for many of the elements of this new measure.

As with any statistic regularly published by a Federal statistical agency, the Working Group expects that changes in this measure over time will be decided upon in a process led by research methodologists and statisticians within the Census Bureau in consultation with BLS and with other appropriate data agencies and outside experts, and will be based on solid analytical evidence.
SPM research

- Improving data collection that include better measures of retirement income in CPS ASEC
- Working papers on geographic adjustments, work expenses, MOOP
- Continue looking at other surveys
  - SIPP - SPM and retirement income, wealth, and material hardship
  - American Community Survey – SPM for smaller geographic areas e.g. Wisconsin
Poverty - Experimental Measures

Poverty - Experimental Measures

Since the development of the current official poverty measure in the 1960's by Mollie Orshansky there have been a series of studies and reviews of the conceptual and technical elements that make up the measure. These studies produced a large number of technical working papers and reports, including a National Academy of Sciences (NAS) 1995 report Measuring Poverty, that address the important measurement issues that are still being discussed by researchers and policy makers today.

For many years, the Census Bureau has estimated a number of experimental poverty measures based on recommendations of the 1995 NAS report (NAS-based measures).

An Interagency Technical Working Group on Developing a Supplemental Poverty Measure was formed in 2009 and charged with developing a set of initial starting points to permit the U.S. Census Bureau, in cooperation with the Bureau of Labor Statistics, to produce a Supplemental Poverty Measure. The Supplemental Poverty Measure will not replace the official poverty measure and will not be used to determine eligibility for government programs. Instead, the Supplemental Poverty Measure is designed as an experimental poverty measure that defines income thresholds and resources in a manner different from the official poverty measure.

Latest Releases

The Research Supplemental Poverty Measure: 2012 [PDF - 487k]
How Census Measures Poverty Infographic [Source: U.S. Census Bureau]
The History of a Measure Infographic [Source: U.S. Census Bureau]
Supplemental Poverty Measure Public Use Research Files
Experimental Poverty Measures Public Use Research Files (NAS)
Tables of NAS-based Experimental Poverty Estimates: 2012
Supplemental Poverty Measure - Federal Register Notice and Solicitation of Comments
Supplemental Poverty Measure Public Use Research Files

These files enable researchers to replicate the estimates for the Supplemental Poverty Measure described in reports P60-247, P60-244 and P60-241 [The Research Supplements 2012, 2011, and 2010]. All four files use Census 2010-based population controls. The 2009 and 2010 research files include tax estimates that differ slightly from those used to create the 2010 Research Supplemental Poverty Measure.

READ ME File [15KB .docx] contains weighted and unweighted poverty counts from each file.

2012 Supplemental Poverty Measure (SPM) Research File [created using the 2013 CPS ASEC] [Revised March 2014]
  - SAS Data Set [70.5 MB .sas7bdat file]
  - STATA Data Set [69.6 MB .dta file]

2011 Supplemental Poverty Measure (SPM) Research File [created using the 2012 CPS ASEC] [Revised March 2014]
  - SAS Data Set [69.6 MB .sas7bdat file]
  - STATA Data Set [69.2 MB .dta file]

2010 Supplemental Poverty Measure (SPM) Research File [created using the 2011 CPS ASEC] [Revised March 2014]
  - SAS Data Set [69.1 MB .sas7bdat file]
  - STATA Data Set [67.6 MB .dta file]

2009 Supplemental Poverty Measure (SPM) Research File [created using the 2010 CPS ASEC] [Revised March 2014]
  - SAS Data Set [73.0 MB .sas7bdat file]
  - STATA Data Set [70.9 MB .dta file]

Three sets of poverty rates to assess tax and transfer policy impacts

• Market Income (MI) based poverty rates—including only own earnings and private investment and retirement incomes

• The Official Measure (OM) poverty rates—based only on cash income only

• The Wisconsin Poverty Measure (WPM)–includes the effects of housing costs, child care costs, medical costs as well as taxes, refundable tax credits, and noncash benefits like SNAP and public housing
Wisconsin Poverty Rates under three measures, 2008–2012


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.
What drove poverty rates down in WI?

- After earnings increases were recorded, four major policy levers affected WI poverty:
  1. **Refundable tax credits** like the EITC (federal and state) and child tax credits
  2. **Noncash benefits** like SNAP, public housing, LIHEAP
  3. **Work related expenses** like child care, affected by CARES, and commuting costs
  4. **Out of pocket health care costs**, affected by BadgerCare
Effects of Taxes, Public Benefits, and Expenses on Overall Poverty in Wisconsin, 2008–2012


Note: SNAP = Supplemental Nutrition Assistance Program.
A consumer’s guide to interpreting various U.S. poverty measures

David S. Johnson and Timothy M. Smeeding

May 2012

A recent series of articles has focused on multiple measures of poverty—either those living below 150 percent of the poverty line or those between 100 and 200 percent of poverty. Comparing these data across different poverty and income measurement domains is the purpose of this Fast Focus.

Alternative poverty measures

The Census Bureau releases a variety of poverty estimates using different data sources and measures. We will discuss four such estimates: (1) the official measure using the Current Population Survey Annual Social and Economic Supplement (CPS ASEC); (2) the official measure using the American Community Survey (ACS); (3) an experimental National Academy of Sciences measure (NAS-type measure); and (4) the Supplemental Poverty Measure (SPM), which builds on the SAE concepts to produce one alternative poverty measure for the nation. In addition, we will provide a few estimates of an SAE-type measure using the ACS and local area data that are not produced by the Census Bureau but rather by researchers in the localities where the estimates originate (e.g., New York City and Wisconsin). This text box below highlights the differences between the measures discussed here.

Fast Focus is an occasional, electronic-only supplement to Focus on recent poverty research.
IRP Resources for Questions on Poverty Measurement


- IRP Poverty Measurement home page: [http://www.irp.wisc.edu/research/povmeas.htm](http://www.irp.wisc.edu/research/povmeas.htm)

Thanks and Q & A

Please submit questions using the callout icon at the bottom of your screens.