



## *Rural Research Brief*

Supplemental Poverty Measure: Understanding the Change in Rural and Non-Metro Poverty measurements

Housing Assistance Council





## **Supplemental Poverty Measure: Understanding the change in rural (non-metro) poverty estimates**

The U.S. Census Bureau recently released a new “supplemental” poverty measure. This new measure represents an attempt by the Census Bureau to address some of the limitations associated with the official poverty estimate measure, which was created in the 1960s. It should be noted that the supplemental measure is not intended to replace the current and official poverty measure, which is used by an estimated 82 federal programs as a factor in allocating monies,<sup>i</sup> but instead is being offered as a way “to better reflect contemporary social and economic realities and government policy effects and thus provide a further understanding of economic conditions and trends.”<sup>iii</sup>

The supplemental poverty measure generates estimates that in many cases vary considerably from the official poverty measure estimates, including those for non-metro (often used as proxy for rural) areas. Specifically, the supplemental measure generated a non-metro poverty rate estimate for the nation of 12.8 percent, several percentage points below the official non-metro poverty rate of 16.6 percent.<sup>iii</sup> On initial review, it appears that efforts to address variations in the costs of living across geographies explain a large part of the difference in these estimates. Regardless of why the differences exist or the confusion it may cause, it is important to remember that this is a supplemental measure which has neither any bearing on how program funds are allocated nor is it intended to replace the official measure.

### **Official Poverty Estimate**

The official poverty measure uses a relatively straightforward methodology. The measure estimates the total cost of meeting a family’s basic needs by multiplying an annual subsistence food budget estimate times three (See Figure 1 below). The U.S. Department of Agriculture’s (USDA) Thrifty Food Plan, which estimates food expenditures using the lowest cost foods available that meet general dietary guidelines, provides the subsistence food budget estimate.<sup>iv</sup> In multiplying this food budget by three, the estimate is an attempt to reflect other basic needs expenditures. Three is used as the multiplier in this calculation because at the time of its creation, food represented about one-third of a typical family’s budget.<sup>v</sup>

A family’s poverty determination is then assessed by comparing its annual pre-tax income—usually referred to as available resources, to the basic needs budget. If a family’s pre-tax income falls below this basic needs budget, the family members are considered to be living in poverty. As a result of this approach, the basic needs budget is generally referred to as the poverty threshold.

The official measure employs so-called “equivalency scales” to adjust the threshold to account for differences in family size.<sup>vi</sup> In addition, the consumer price index is used to adjust for

inflation annually. Beyond these two adjustments, the poverty measure is determined much the same way today as it was when it was first calculated in the late 1960s.

**Figure 1. Official Poverty Measure**

<b>Family Available Resources</b>	<b>Poverty Threshold<sup>1</sup></b>
Pre-tax income	Subsistence Food Budget (Thrifty Food Plan) * 3
<b>POVERTY DETERMINATION</b>	
Family Resources < Poverty Threshold = Living in Poverty	

<sup>1</sup>The measure uses the Consumer Price Index for all Urban Consumers (CPI-U) to adjust the poverty threshold for inflation. The measure uses equivalence scales to adjust the poverty threshold to take into family size differences. The baseline poverty threshold is determined for a family of four with equivalency scales used to adjust for smaller and larger families.

### **Criticism**

The poverty measure has been criticized by both people on the right and left of the political spectrum. Some have claimed the measure over-estimates poverty and point out that, among other things, billions of dollars in government assistance, which many families use to meet their basic needs, are simply not accounted for in the estimate.<sup>vii</sup> Others believe the measure under estimates poverty, pointing out that food now represents much less than one-third of a typical family’s budget, which results in an artificially low threshold.<sup>viii</sup>

### **Supplemental Poverty Estimate**

In response to such claims, the Census Bureau created the supplemental poverty estimate. This new measure is more complex in its calculation and attempts to consider more factors. On the poverty threshold portion of the equation, the supplemental measure uses data from the Consumer Expenditure Survey (CES) on annual family expenditures in place of USDA’s Thrifty Food Plan. More specifically, the threshold, which is based on five years of CES data, represents a family’s minimum annual expenditures on food, clothing, shelter, and utilities.<sup>ix</sup>

The supplemental measure continues to use equivalence scales to adjust the threshold according to family size; however, the supplemental measures further adjusts the threshold using a housing cost index, to reflect geographic costs of living differences. It is this adjustment which likely explains much of the change in non-metro poverty estimates.<sup>x</sup> In their report on the supplemental measure, the Census Bureau, in describing locational differences between the supplemental and official poverty measures note, “These differences by residence and region reflect the adjustments for geographic price differences in housing...”<sup>xi</sup>

On the income/resource side, the supplemental measure varies substantially from the official poverty rate which used pre-tax income alone as a measure of family resources. The supplemental poverty measure first subtracts from pre-tax income work related expenses, taxes paid, child care expenses, and out-of-pocket medical expenses. Second, the supplemental measure adds to family income/resources in-kind government benefits, like the earned income tax credit, food stamps and energy assistance (See Figure 2).

Because of these changes in how family resources are determined, the two poverty measures generate different estimates. For example, the subtraction of out-of-pocket medical expenses from family income/resources in the supplemental poverty measure has resulted in considerably higher elderly poverty estimates when compared to the official poverty rates, 15.9 percent and 9 percent respectively. The exact opposite occurred for child poverty estimates given the supplemental poverty measures inclusion of in-kind government assistance; the result of adding these benefits to the calculation of family income/resources has meant lower poverty estimates for children under the supplemental poverty measure when compared to the official rates, 22.5 percent compared to 18.2 percent.

**Figure 2. Supplemental Poverty Measure**

<b>Family Available Resources</b>	<b>Poverty Threshold<sup>1</sup></b>
All Pre-Tax Income:	Estimate basic family budget:
<b>Minus</b> taxes paid, work related expenses, child care expenses, medical out-of pocket expenses and child support paid.	<b>Includes</b> CES estimate of low-cost family budget for food, clothing, shelter and utilities
<b>Plus</b> in-kind government benefits like food stamps, student lunch assistance, housing subsidies, low-income energy assistance, earned income tax credits, etc.	<b>Adjustments</b> for geographic differences in costs of living-ACS housing cost index
<b>POVERTY DETERMINATION</b>	
Family Resources < Poverty Threshold = Living in Poverty	

<sup>1</sup>Similar to the official poverty measure, the supplemental measures uses equivalence scales to adjust the poverty threshold to take into family size differences.

## Conclusion

There are many different approaches to calculating poverty and no one method is perfect. For example, the supplemental poverty measure does not address transportation costs, which are very significant, particularly for rural families. There is no doubt that research efforts will continue to work towards improving our ability to accurately identify and evaluate poverty; the supplemental poverty measure is just an initial foray. Given these factors, the official poverty measure should likely be referred to as the definitive reference source.

<sup>i</sup>Blank, Rebecca M. and Mark H. Greenberg. 2008. *Improving the Measurement of Poverty*. The Hamilton Project Discussion Paper 2008-17

<sup>ii</sup>Census Bureau Newsroom Webpage: Press Release November 7, 2011 entitled *Supplemental Poverty Measure Research*. Press Release accessed 11/3/11 at the following url: <http://www.census.gov/newsroom/releases/archives/poverty/cb11-tps44.html>

<sup>iii</sup>US Census Bureau. 2011. The Research Supplemental Poverty Measure: 2011. This report accessed 11/7/11 at the following url: [http://www.census.gov/newsroom/releases/archives/news\\_conferences/2011-11-04\\_spm\\_webinar.html](http://www.census.gov/newsroom/releases/archives/news_conferences/2011-11-04_spm_webinar.html)

<sup>iv</sup>For a description of USDA Thrifty Food Plan go to: <http://www.cnpp.usda.gov/USDAFoodPlansCostofFood.htm>

<sup>v</sup>Blank, Rebecca M. and Mark H. Greenberg. 2008. *Improving the Measurement of Poverty*. The Hamilton Project Discussion Paper 2008-17.

<sup>vi</sup>It is important to note that the official poverty measure baseline threshold is calculated for a family of four and the equivalence scales are used to adjust it up or down according to family size.

<sup>vii</sup>For an example of a critic of the poverty measure see the following Heritage Foundation, Robert Rector 1990 article entitled "How Poor are Americans": <http://www.heritage.org/Research/Reports/1990/09/How-Poor-are-Americans-Poor>

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<sup>viii</sup>For an example of a liberal critic of the poverty measure see the following Center for American Progress, Mark Greenberg article entitled “It’s Time for a Better Poverty Measure”:

[http://www.americanprogress.org/issues/2009/08/new\\_poverty\\_measure.html](http://www.americanprogress.org/issues/2009/08/new_poverty_measure.html)

<sup>ix</sup>The basic needs budget/poverty threshold is based on five years of CES survey data on family expenditures on primary need items: food, clothing, shelter and utilities. The actual budget/threshold represents the 33<sup>rd</sup> percentile of the expenditure distribution for these items. This means that 33 percent of all families in the survey spent this amount of money or less on these basic needs, and also that over two-thirds of families exceeded this budget. The 33<sup>rd</sup> percentile then represents a budget that is low-cost, certainly below the average, without being extreme-falling into what the bottom ten percent spent. This low-cost budget then comes to represent the “bare minimum” necessary to provide for a family’s basic needs.

<sup>x</sup> For a closer look at the impact of such geographic adjustments on the poverty measure see the following paper: Renwick, Trudi. 2011. Geographic Adjustments of Supplemental Poverty Measure Thresholds: Using the American Community Survey Five-Year Data on Housing Costs. SEHSD Working Paper Number 2011-21

<sup>xi</sup> US Census Bureau. 2011. The Research Supplemental Poverty Measure: 2011. The quote used here can be found on page 8 of this report. This report accessed 11/7/11 at the following url:

[http://www.census.gov/newsroom/releases/archives/news\\_conferences/2011-11-04\\_spm\\_webinar.html](http://www.census.gov/newsroom/releases/archives/news_conferences/2011-11-04_spm_webinar.html).