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Choices in Defining and Estimating Poverty Thresholds: Focus on the U.S. Supplemental Poverty Measure

For over 40 years, the U.S. official poverty measure was the only annual measure of poverty produced by the U.S. Census Bureau. However, criticisms of the official poverty measure, which compares pre-tax cash income to the absolute thresholds, grew over time. In 1990, a Congressional appropriation funded an independent scientific study of the concepts, measurement methods, and information necessary for a poverty measure. In 1995, the National Academy of Sciences (NAS) Panel on Poverty and Family Assistance released its report detailing suggested improvements in the measure of poverty in the U.S. Recommendations included the production of thresholds based recent consumer unit spending of food, clothing, shelter, utilities, and a little bit more for personal care and non-work related transportation (FCSU). Thresholds were also to be adjusted by area to account for differences in the cost of living across areas. No longer would before tax income be the comparison to thresholds for poverty measurement. Instead a new measure, resources, was to include not only income but also the value of in-kind benefits with reductions due to income taxes, work-related spending, and medical out-of-pocket spending. Building off of the NAS panel's recommendations, an Interagency Technical Working Group on Developing a Supplemental Poverty Measure (ITWG) was formed in the last days of 2009 and then over the next few months developed a set of recommendations for the production of the SPM.

The Supplemental Poverty Measure (SPM) was developed in 2010 as a supplement to the official poverty measure. The ITWG was charged with operationalizing the NAS panel's findings and developing a set of initial starting points to permit the Census Bureau, in cooperation with the Bureau of Labor Statistics (BLS), and with support from other federal government agencies, to produce the SPM that would be released along with the official measure each year. Recommendations included, among others, the creation of new poverty thresholds and adjustments to resources. Changes to the estimation of the thresholds included an expansion of the estimation sample from two adults with two children to all consumer units with two children, moving from a percentage of median expenditures to a lower point in the FCSU expenditure distribution (around the 33rd percentile), and the estimation of three thresholds to account for the different spending needs of owners with mortgages, those without mortgages, and renters. The ITWG considered the SPM to be a work in progress with the expectation that there would be improvements to it over time. The measure would change and adapt with the availability of new data and/or methods and as justified by further research. Since 2010, SPM poverty statistics have been produced and published annually; SPM poverty thresholds have

also been produced since that time with thresholds for 2005 forward. However, as during the ITWG discussions, debates continue regarding setting the threshold at the lower end of the FCSU expenditure distribution and in defining the estimation sample as consumer units with two children only. The purpose of this study is to continue the discussion surrounding these issues with results to test alternative estimation assumptions, and to highlight issues and options for other countries faced with similar challenges in poverty measurement.

Specifically this paper focuses on choices to consider when defining and estimating poverty thresholds based on household or consumer expenditure survey data. The experience presented in this paper is that from the perspective of representatives from the U.S. federal economic statistical community in the development of the Supplemental Poverty Measure. Choices outlined and discussed include the following: which goods and services to include in the thresholds and how to value these; if based on a point in a distribution, for example, at a lower point like the 33rd percentile versus the median; upon whose experience thresholds are based, for example, households and families most likely to receive government transfers (e.g., two adults with two children) or all households in the population; how to treat owner-occupied housing in a measure that accounts for shelter; whether and how to account for medical care; whether and how to adjust for geographic differences in prices across areas; and which equivalence scales to use. Thresholds based on these choices are produced along with poverty statistics.