

CE in the SPM

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U S C E N S U S B U R E A U

Helping You Make Informed Decisions

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Census Bureau to Develop **Supplemental Poverty Measure** (SPM), with assistance from the Bureau of Labor Statistics and in consultation with other appropriate agencies and outside experts, will be responsible for the measure's technical design.

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

SPM

- An Interagency Technical Working Group
 - Provided a roadmap
 - 1995 National Academy of Science *Measuring Poverty*
 - Extensive research on poverty measurement past 15 years
- Additional details can be found at http://www.census.gov/hhes/www/povmeas/SPM_TWGObservations.pdf.

Observations from the Interagency Technical Working Group on Developing a Supplemental Poverty Measure

- The SPM would not replace the official poverty measure
- Will be updated every year
- Improved as new data, new methods, and further research become available

BLS Role

- Conducted research on the poverty thresholds
- Provided expenditure-based thresholds to the Census Bureau
- Will continue to play this role with the SPM

Basis for SPM

- Broadly based on the recommendations of the National Academies of Science (NAS) in their 1995 report, *Measuring Poverty*
- Informed by the research of the past 15 years
- Specifies a series of initial choices in the development of the SPM

National Academy of Sciences Recommendations

- Consumer Expenditure Survey [CE] Interview data
- Reference family of two adults and two children
- Basic bundle –food, clothing, shelter, utilities (FCSU)
- Percentage of median expenditures
- Multiplier for other needs of 15% - 25%
- Three years of quarterly data

SPM

What are the differences?

Data

- U.S. Consumer Expenditure Interview Survey
- Each threshold, 5 years of data
 - 1995: 1990 Q2 – 1995 Q1
 - 2009: 2004 Q2 - 2009 Q1
- Assume quarters are independent

Whose spending?

- Poverty thresholds -- Consumer Unit
- Income side -- 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 cohabitators and their children
- Equivalized expenditures for the reference sample

Equivalized?

- Estimation sample - all units with **exactly two children.**
- Adjusted to represent **2 adult and 2 child** unit with equivalence scale
- Published thresholds presented as spending thresholds for a **2 adult and 2 child** unit

Three-parameter Equivalence Scale

$$(A + pk + qK)^F$$

- A = number of adults
- p and q = adult equivalent needs
 - p = 0.8
 - q = 0.5
- k = first child with single parent
- K = number of other children
- F is the economy of scale factor
 - F = .7 implies relatively low economies of scale

FCSU Spending

- CE-Defined Food (includes Food Stamps value)
- Clothing
- Utilities (includes telephone)
- For renters, shelter expenditures
- For homeowners, non-vacation shelter expenditures that include
 - Mortgage interest payments
 - Prepayment penalties
 - Property taxes
 - Maintenance, repairs, insurance and other related expenditures
- **Out-of-pocket = CE-defined + mortgage principal repayments**

What level of spending?

- 120% of 33rd percentile of annual FCSU expenditures
- From the distribution of equivalized FSCU expenditures within the estimation sample, select the dollar amount at the 33rd percentile of the distribution
- Threshold based on a level of spending on FCSU that two-thirds of American families are able to achieve or exceed

Annual Updates?

- Five year moving average
- Reduce the risk that they might change significantly from year-to-year
- Update by changes in 33rd percentile of FCSU expenditures each year

Main Goals of SPM

- More comprehensive poverty measure than current official measure
- Evaluate effect of taxes and transfers on poverty statistics
 - Include value of in-kind benefits that are counted on the resource side for food, shelter, clothing and utilities
 - Consistency of the threshold and resource definitions

Resource side

- Before tax money annual income
- Plus noncash transfers
- Minus necessary expenses

For consistency CE needs

- Food expenses do not include subsidies for WIC and free and reduced price school meals
- Shelter expenses do not take account of the value public or subsidized housing
- Utility expenses do not include payments subsidies such as LIHEAP

Important CE needs

- Expenditures on food, clothing, housing, and utilities must be collected together
 - Correlations are important
 - Distributions at micro-level
- Resource measure is collected for previous calendar year
 - CE quarterly data is annualized
 - Quarters are assumed to be independent
 - Longitudinal weights

Special problem: housing

- A significant number of low-income families own a home without a mortgage and therefore have quite low shelter expenditures
- Separate thresholds
 - Renters
 - Owners with a mortgage
 - Owners without a mortgage

Further research

- Adjust the thresholds for price differences across geographic areas using the best available data and statistical methodology
- Estimates of correlations among FCSU and MOOP, child care, work expenses
- Characterize properties of distributions at the micro-level, changes over time
- Monthly vs. annual measures

References

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- Garner, Thesia I., Stephanie Shipp, Geoffrey Paulin, Kathleen Short, and Charles Nelson, “Poverty Measurement in the 1990s,” *Monthly Labor Review*, March 1998, pp. 39-61.