The Supplemental Poverty Measure Under Alternate Treatments of Medical Out-of-Pocket Expenditures

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BLS and Census Bureau
ASSA Meetings, Philadelphia, PA
January 4, 2014
Purpose

Health care needs defined as MOOP

Subtract MOOP from Resources

Include MOOP in SPM Thresholds
Objective

- Review methods to account for medical care in poverty measurement

- Produce FCSUM-CE thresholds

- Compare poverty rates
  - SPM with MOOP in thresholds (SPM-MIT)
  - SPM with MOOP subtracted from resources (SPM)

- Discuss options to account for health care needs in thresholds
Background and Motivation

- Reported MOOP subtracted from income (MSI)
  - ITWG guidelines: SPM
  - Panel’s recommendation: NAS

- Objection to including in thresholds
  - Large number of thresholds needed to reflect different levels of medical care need, thereby complicating the poverty measure

- Support to include in thresholds
  - Enhance the portability of poverty thresholds for use with variety of data sources: include medical expenses in the poverty thresholds along with other basic needs (Bavier, 1998, 2000)

- Several groups using American Community Survey for SPM estimates, use NAS threshold MOOP share applied to SPM threshold, and 1996 MEPS data
MOOP in the NAS Threshold

- Banthin et al. (2000), Short (2001), and Short and Garner (2002) produced NAS-MIT

- Include out-of-pocket medical spending (including health insurance premiums) with food, clothing, shelter, and utilities (FCSUM)
  - Reference family with 2 adults and 2 children
  - Based on % of median FCSUM expenditures

- Medical equivalence scales for other families by size, health insurance status, over 65 (some options: used 1996 MEPS with health status)
Steps in Production of FCSUM-CE Thresholds

2A+2C Threshold
- FCSUM for CUs with 2 children
- Equivalence scales
- \textit{FCSUM for CUs with 2 adults + 2 children}
- “33\textsuperscript{rd} percentile”
- FCSUM thresholds-housing tenure

- Thresholds for other CU compositions
- Geographic adj.
- Compare to SPM resources
- Poverty rates
SPM Estimation Sample

- Estimation sample: consumer units (CUs) with 2 children
SPM Reference Unit

- Estimation sample: consumer units (CUs) with 2 children
- Reference unit: CUs with 2 adults and 2 children
At the CU Level, CUs+2C converted to CUs 2A+2C
SPM Thresholds Based on FCSUM for 2A+2C

- SPM thresholds, with multiplier, by housing tenure $h$

$$= (1 - m_{FCSUM_{33 \, \text{per.}}})(1.2 * FCSUM_{\text{33 per.}}) + (m_{FCSUM_{33 \, \text{per.}}})(FCSUM_{\text{33 per.}})$$

$$- (S + U)_{FCSUM \, \text{33 per.}} + (S + U)_{FCSUM \, \text{33 per.}} \text{ for housing } h$$

- Housing tenure
  - Owners with mortgages
  - Renters
  - Owners without mortgages
Equivalence Scales Applied to Derive Thresholds for Other CUs

- 3-parameter equivalence scale applied to FCSU portion of 2A+2C FCSUM thresholds

- Medical equivalence scale applied to M part of portion of 2A+2C FCSUM thresholds (2011 CE data, 12 groups)
  - One, two, or three people
  - Presence of elderly
  - Health insurance status
    - Privately insured
    - Publicly insured
    - Uninsured non-elderly
**Data**

**Thresholds**
- U.S. Consumer Expenditure Interview Survey
- Five years: 2007Q2-2012Q1
- Number of interviews = 138,201
- MOOP reported
- FCSUM expenditures in 2011 dollars (used All Items, U.S. City Average CPI)

**Resources**
- 2012 March
- n=75,200
- Cash and non-cash
- MOOP reported
SPM Thresholds for Two Adults with Two Children vs. Official: 2011

- **FCSUM-CE MOOP**
  - Own w/o mortg
  - Renters
  - Own w/mortg

- **FCSU**
  - Own w/o mortg
  - Renters
  - Own w/mortg

- **Official**
  - no distinction

<table>
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<tr>
<th>Category</th>
<th>Own w/o mortg</th>
<th>Renters</th>
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Poverty Rates: 2011

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<tr>
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<td>15.1%</td>
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<tr>
<td>SPM-MSI</td>
<td>16.1%</td>
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<tr>
<td>SPM-MIT</td>
<td>14.7%</td>
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Accounting for MOOP

**SPM 2011**

- Poverty Rate: 16.1% (MSI), 14.7% (MIT)

**NAS 2000**

- Poverty Rate: 12.2% (MSI), 12.7% (MIT)

Source: this study (2014)

Source: Short and Garner (2002)
Reasons for Differences

**SPM 2011**
- MSI: MOOP reported
- Thresholds based on 33rd percentile FCSUM
- 2011 CE-based medical equivalence, no adjustment for uninsured
- Estimation and reference units differ
  - Estimation: all consumer units with 2 children
  - Reference: consumer units with families with 2 adults and 2 children

**NAS 2000**
- MSI: MOOP subtracted modeled
- Thresholds based on medians FCSUM
- 1996 MEPS-based medical equivalence, adjustment for the uninsured
- Estimation and reference units same
  - Families with 2 adults and 2 children
Consumer Units with Two Children as Share of All Consumer Units: 2007Q2-2012Q1

CUs with Two Children: 12%

Other CUs: 88%
Weighted Distribution of Consumer Units with Two Children by Medical Equivalence Group: 2007Q2-2012Q1
Weighted Distribution of Consumer Units with Two Children by Medical Equivalence Group: 30-36 Percentile Range of FCSUM

- 2A+2C private: 41%
- 2A+2C public: 10%
- 2A+2C uninsured: 12%
- nonelder priv: 19%
- Other: 18%
- nonelder pub: 8%
- nonelder unins: 6%
- elderly: 4%

MOOP share of 2A+2C equivalized FCSUM: 8.1%
Weighted Distribution of Consumer Units with Two Children by Medical Equivalence Group: 47-53 Percentile Range of FCSUM

- **2A+2C private**: 58%
- **2A+2C public**: 6%
- **2A+2C uninsured**: 9%
- **Nonelder Private**: 18%
- **Other**: 9%
- **Nonelder Public**: 3%
- **Nonelder Uninsured**: 3%
- **Elderly**: 3%

MOOP share of 2A+2C equivalized FCSUM: 9.5%
Implicit Equivalized 2A+2C MOOP Expenditures in Ranges of FCSUM Distributions: 2011

$1,859

$2,738

$0 $500 $1,000 $1,500 $2,000 $2,500 $3,000

BLS
Discussion

- What is the need?
  - MOOP spending
  - MOOP consumption
  - Health insurance
Discussion

Alternative ways to account for health care needs...health insurance

- Plans
  - State
  - National

- How to add
  - CU level FCSUHI (FCSU with premium for health insurance added at the CU level) and then estimate threshold 2A+2C
  - 2A+2C FCSU + plan
Conclusion

- Important topic
- No easy answers
- Much work remains
Contact Information

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