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

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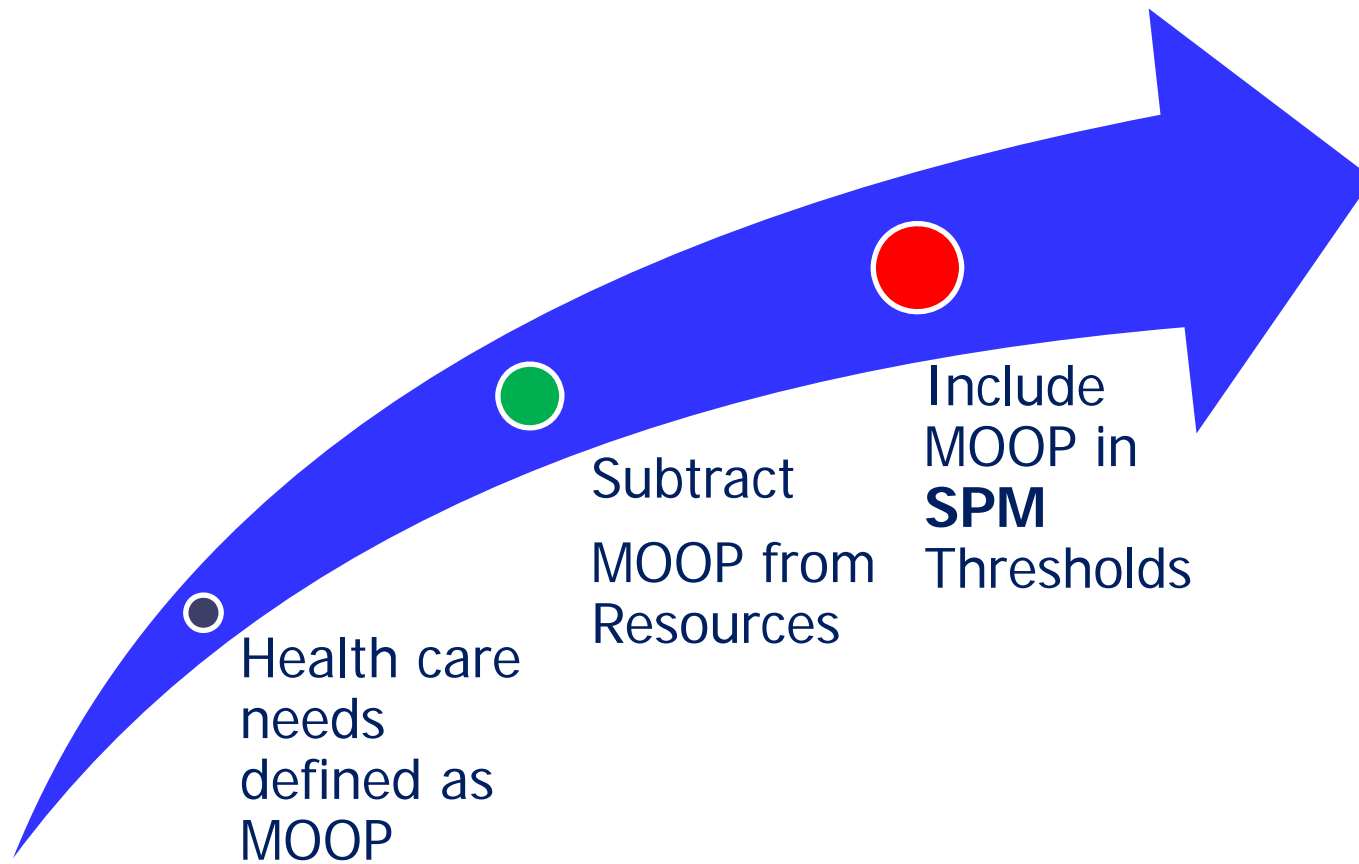BLS and Census Bureau
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Purpose

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

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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

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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
- *FCSUM for CUs with 2 adults + 2 children*
- "33rd 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

3-parameter equivalence scale

+

CUs +2C medical equivalence scale

Health Insurance

SPM Thresholds Based on FCSUM for 2A+2C

- SPM thresholds, with multiplier, by housing tenure h

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

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

- 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
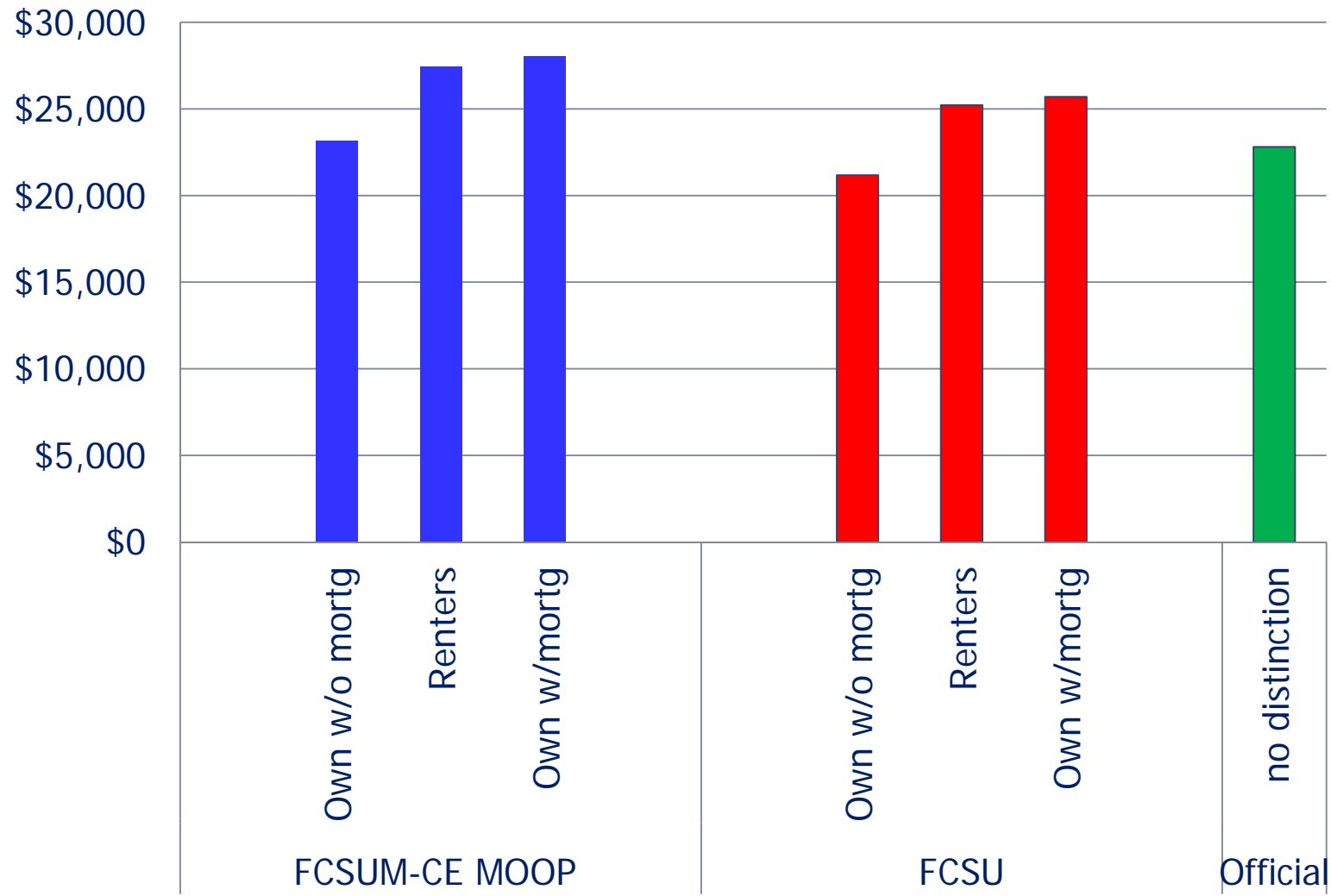   - – Publicly insured
    - – Uninsured non-elderly

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Data

Thresholds

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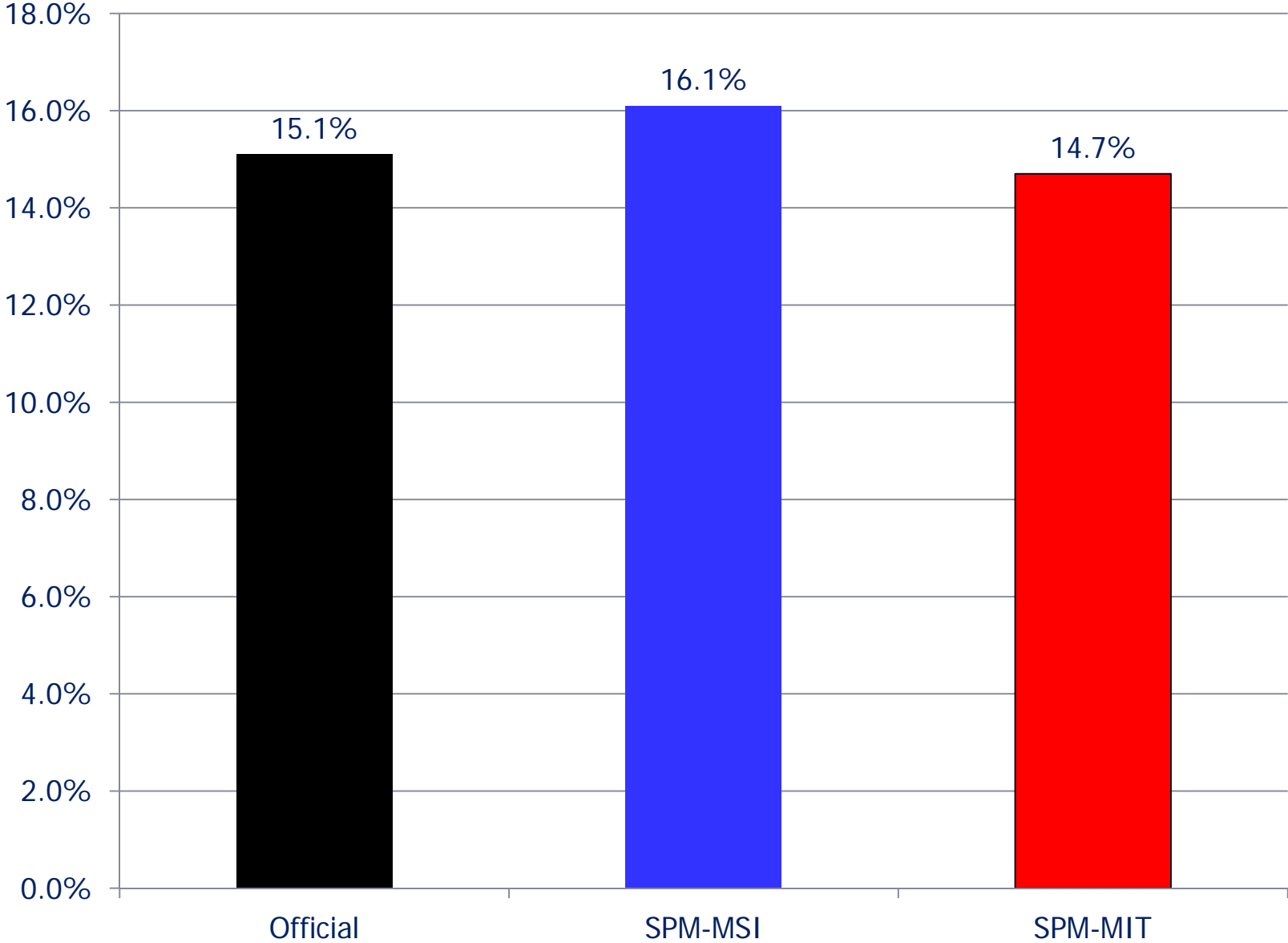- FCSUM expenditures in 2011 dollars (used All Items, U.S. City Average CPI)

Resources

- U.S. Current Population Survey Annual Social and Economic Supplement (ASEC)
- 2012 March
- n=75,200
- Cash and non-cash
- MOOP reported

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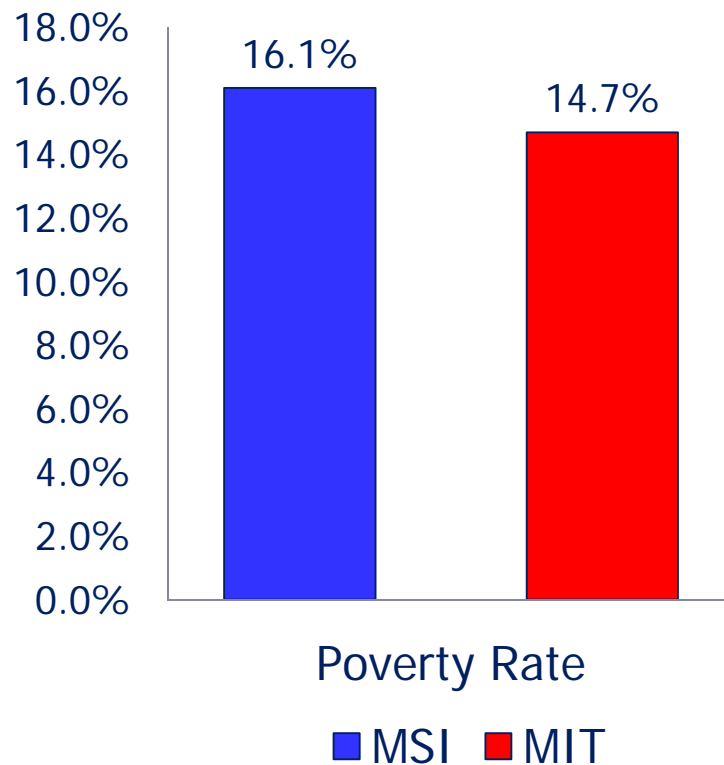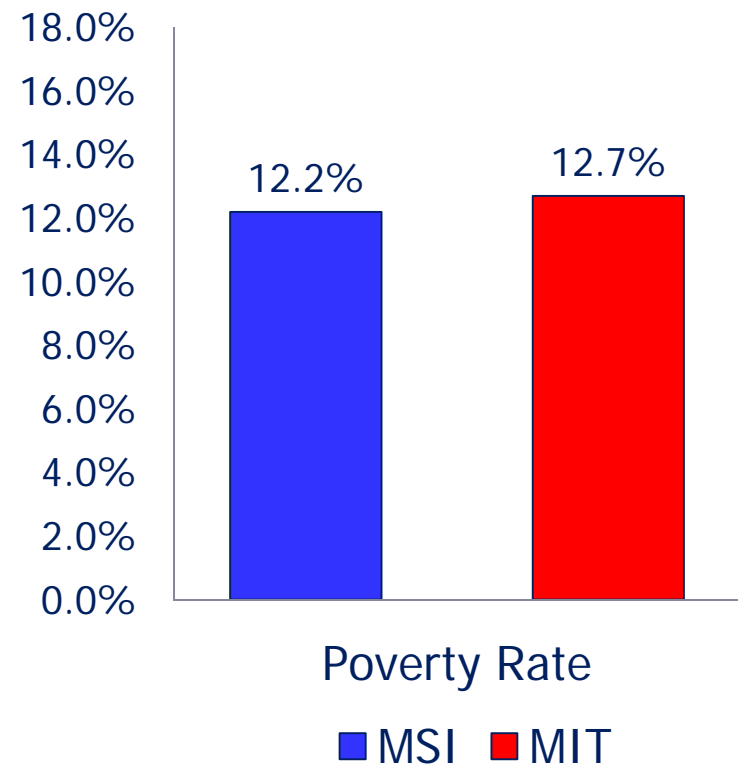# SPM Thresholds for Two Adults with Two Children vs. Official: 2011

Poverty Rates: 2011

	Official	SPM-MSI	SPM-MIT
	15.1%	16.1%	14.7%

Y-axis: 0.0%, 2.0%, 4.0%, 6.0%, 8.0%, 10.0%, 12.0%, 14.0%, 16.0%, 18.0%

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Accounting for MOOP

SPM 2011

	18.0%
	16.1% 14.7%
	16.0%
	14.0%
	12.0%
	10.0%
	8.0%
	6.0%
	4.0%
	2.0%
	0.0%

Poverty Rate

■ MSI ■ MIT

Source: this study (2014)

NAS 2000

	18.0%
	16.0%
	14.0% 12.7%
	12.2% 12.0%
	10.0%
	8.0%
	6.0%
	4.0%
	2.0%
	0.0%

Poverty Rate

■ MSI ■ MIT

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
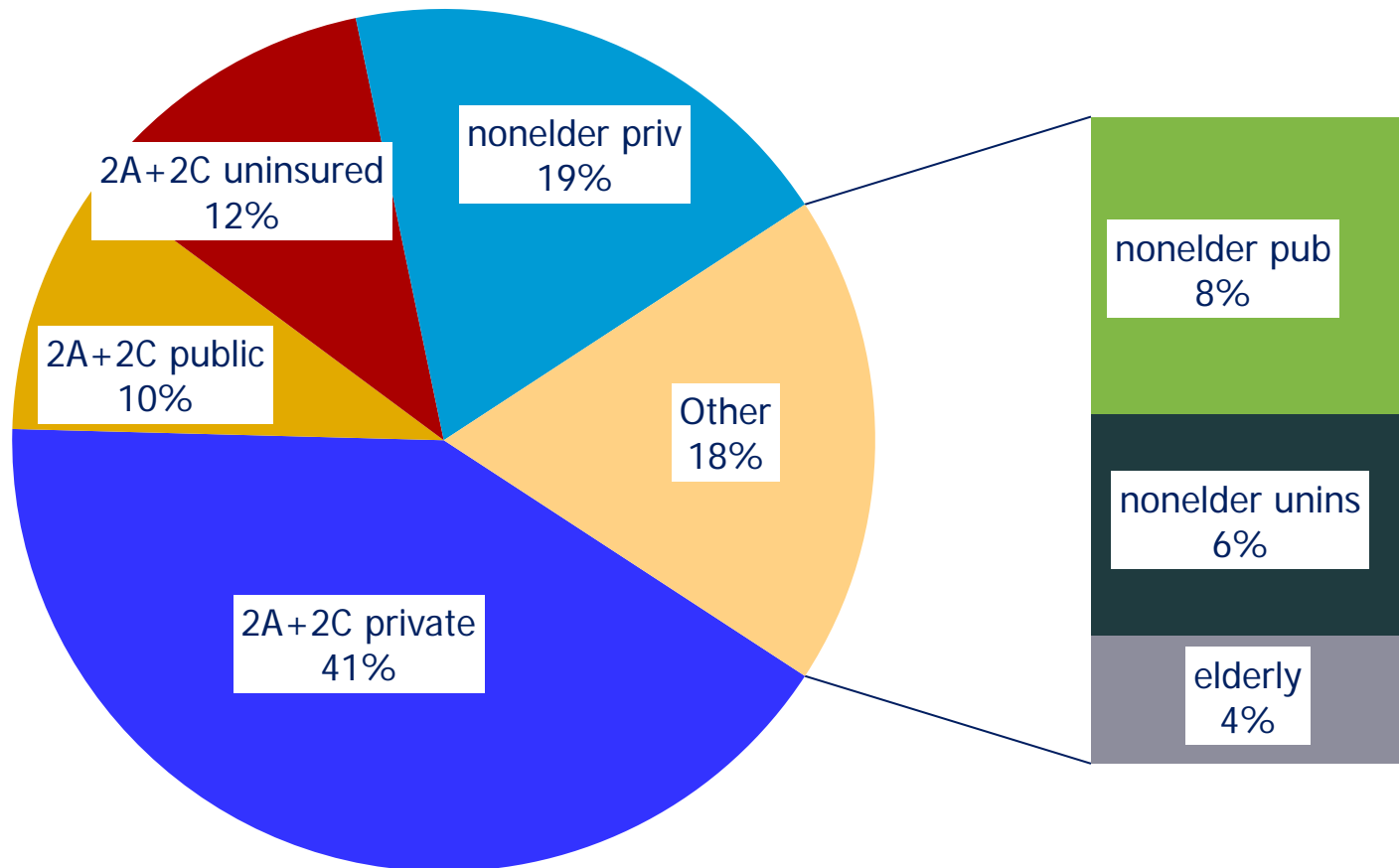 - Families with 2 adults and 2 children

Consumer Units with Two Children as Share of All Consumer Units: 2007Q2-2012Q1

CUs with Two Children
12%

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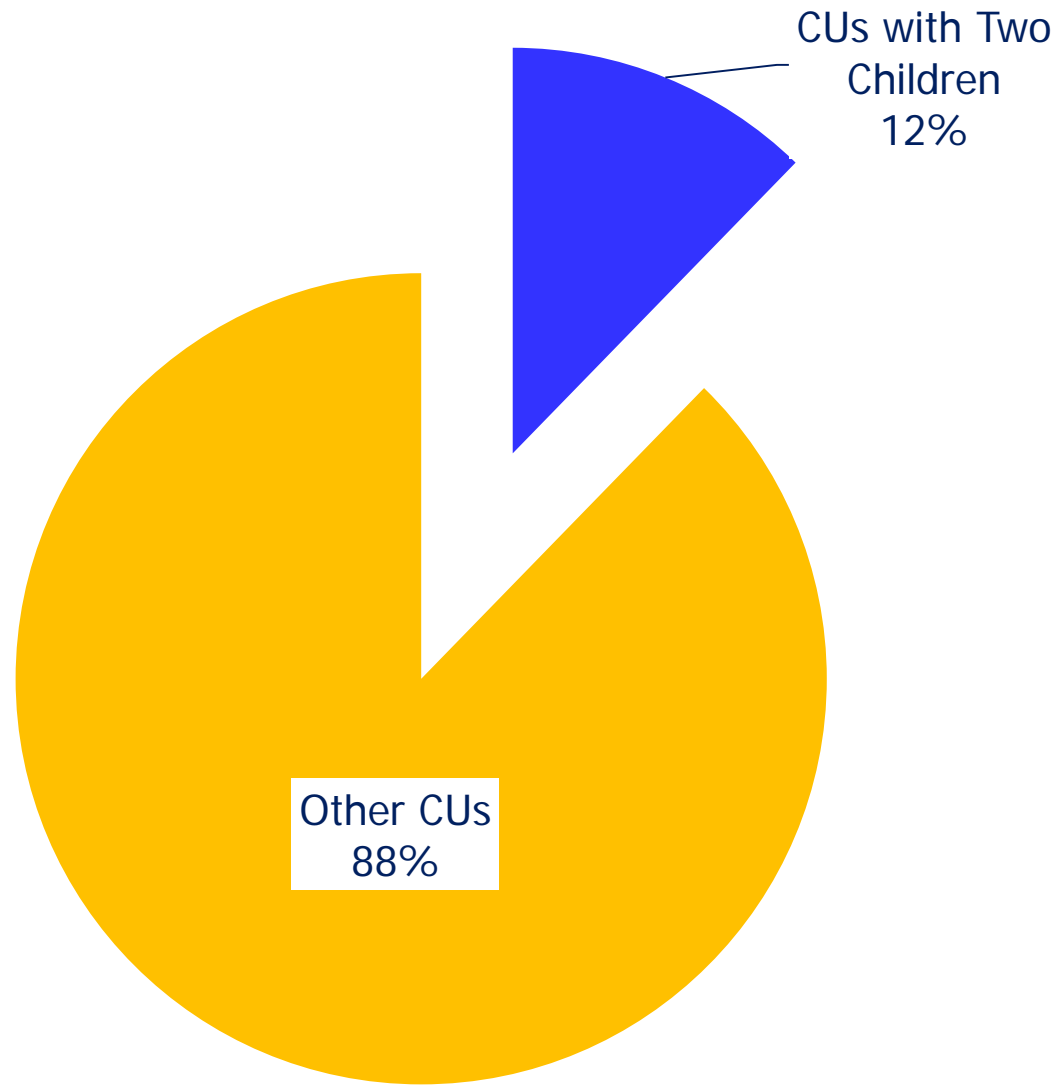
Weighted Distribution of Consumer Units with Two Children by Medical Equivalence Group: 2007Q2-2012Q1

elderly 3%

nonelder unins 5%

nonelder pub 7%

nonelder priv 16%

2A+2C 69%
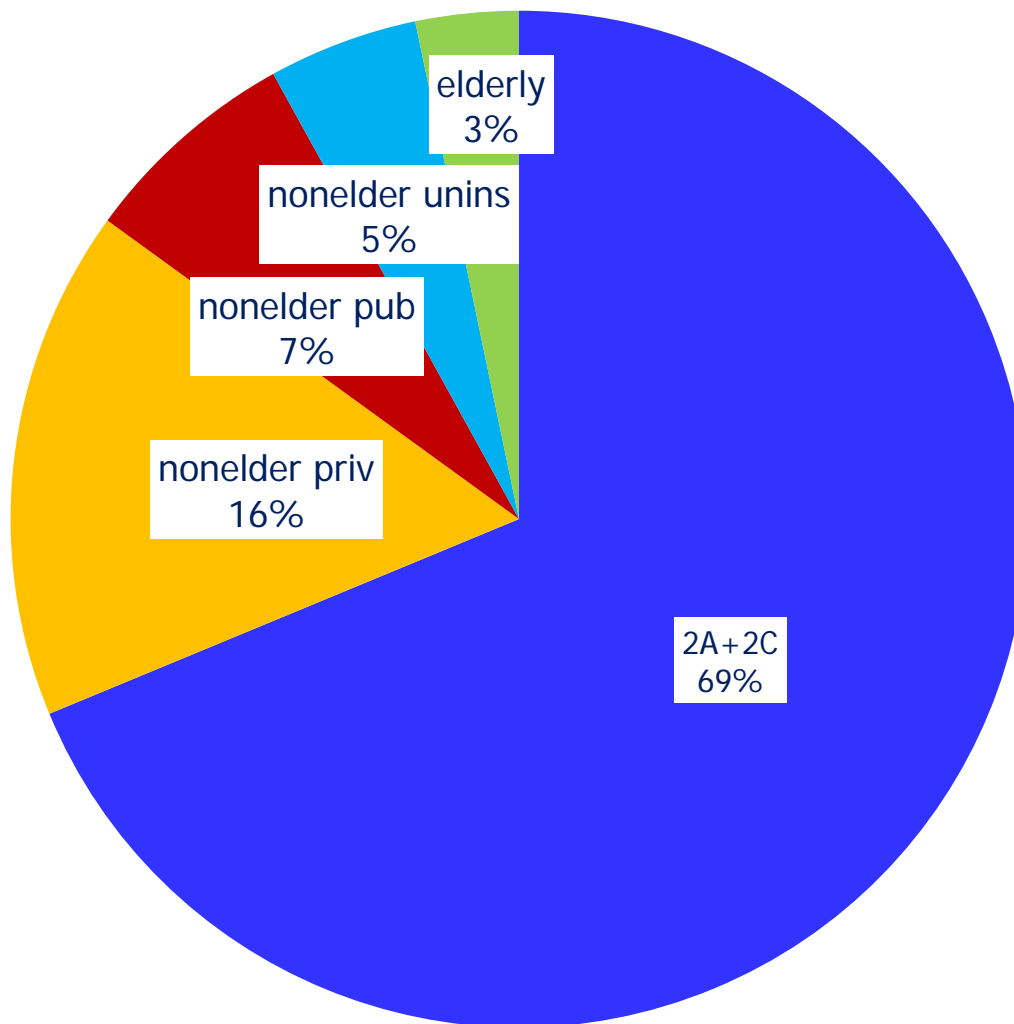
Weighted Distribution of Consumer Units with Two Children by Medical Equivalence Group: 30-36 Percentile Range of FCSUM

nonelder priv
19%

2A+2C uninsured
12%

2A+2C public
10%

2A+2C private
41%

Other
18%

nonelder pub
8%

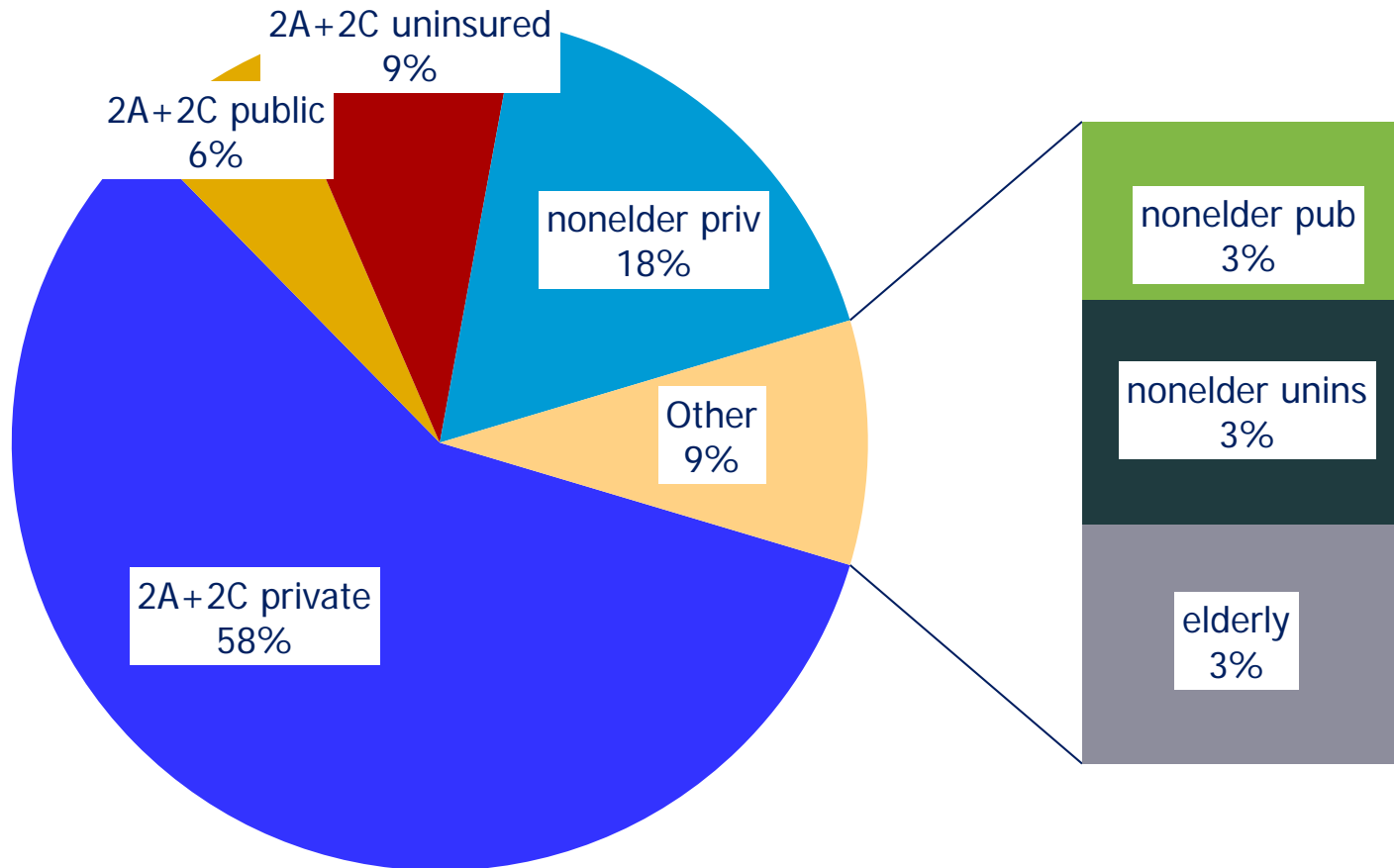nonelder unins
6%

elderly
4%

MOOP share of 2A+2C equivalized FCSUM: 8.1%

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Weighted Distribution of Consumer Units with Two Children by Medical Equivalence Group:
47-53 Percentile Range of FCSUM

2A+2C uninsured
9%

2A+2C public
6%

nonelder priv
18%

nonelder pub
3%

nonelder unins
3%

elderly
3%

Other
9%

2A+2C private
58%

MOOP share of 2A+2C equivalized FCSUM: 9.5%

Implicit Equivalized 2A+2C MOOP Expenditures in Ranges of FCSUM Distributions: 2011
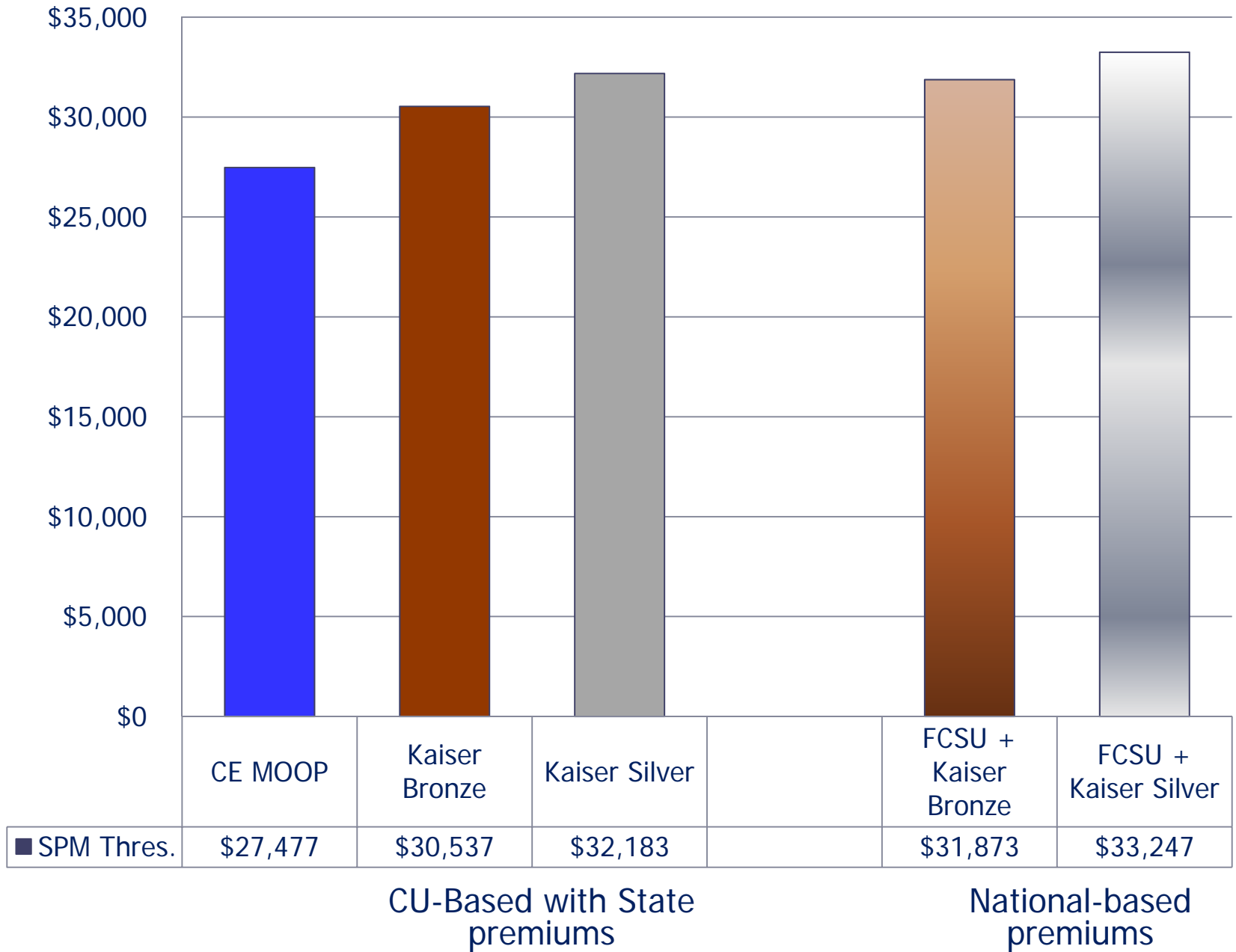
Discussion

- 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

FCSUM Thresholds 2011: Renters

	CU-Based with State premiums				National-based premiums	
	CE MOOP	Kaiser Bronze	Kaiser Silver		FCSU + Kaiser Bronze	FCSU + Kaiser Silver
■ SPM Thres.	$27,477	$30,537	$32,183		$31,873	$33,247

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Conclusion

- Important topic

- No easy answers

- Much work remains

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