Subnational Measures of Income and Well-being: U.S. Experience

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Spatially-disaggregated information on income distribution and poverty: US

• Poverty and income distribution statistics produced at myriad levels of geography.
  – National – Current Population Survey
  – States – American Community Survey - 1 year data
  – County, city, census tract, block group – ACS
    • 1 year data – 7,433 geographies
    • 3 year data – 14,811 geographies
    • 5 year data – 743,653 geographies
  – Single year school district level poverty estimates – model-based (SAIPE)
Challenges

• Must educate users to select the correct data source
• Changes in geographic boundaries
• Disclosure avoidance: Use “PUMAs” – Public Use Microdata Areas for public use data sets
• Some issues with comparability
  – Reference period – previous 12 months vs. previous calendar year
  – Number of income sources included in total income
• Try to separate release dates to minimize confusion

The possibility for U.S. of producing state estimates of the OECD indicators using American Community Survey (ACS) data

• ACS has more limited data on transfers
  – Asks only about receipt of food stamps – not amount
  – No questions on school lunch programs
• ACS does not have estimates of federal, state or local taxes
  – Paucity of relationship pointers makes it difficult to form tax filing units from the ACS data
  – Aggregated income sources (eight) complicate calculation of taxable income
• Census researchers are investigating mechanisms for imputing these variables for ACS respondents
• Indicators can be produced using 3 year average data from the Current Population Survey
2009-2011 State Poverty Head Count:
Using 60 Percent Median and Market Income

- 0.125000
- 0.171000 - 0.208000
- 0.208001 - 0.245000
- 0.245001 - 0.278000
- 0.278001 - 0.324000
- 0.324001 - 0.370000
- 0.370001 - 0.400000
- 0.400001 - 0.490000
- 0.490001 - 0.750000

2009-2011 State Poverty Head Count:
Using 60 Percent Median and Disposable Income

- 0.125000 - 0.171000
- 0.171001 - 0.208000
- 0.208001 - 0.245000
- 0.245001 - 0.278000
- 0.278001 - 0.324000
- 0.324001 - 0.370000
- 0.370001 - 0.400000
- 0.400001 - 0.490000
- 0.490001 - 0.750000
The possibility for U.S. of producing state estimates of the OECD indicators using American Community Survey (ACS) data

<table>
<thead>
<tr>
<th>OECD Indicator</th>
<th>State Level estimates using the ACS?</th>
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<tr>
<td>Mean disposable income by quintile</td>
<td>NO – need to develop a tax calculator; impute food stamp amounts and impute school lunch recipiency</td>
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<td>Gini</td>
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<td>Gini before taxes and transfers</td>
<td>YES</td>
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<td>S80/S20 income quintile share</td>
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Definition and use of indicators of the statistical precision of the estimates

- All American Community Survey tables show 90 percent confidence intervals.
- For the 1-year and 3-year ACS data, if the median Coefficient of Variation (CV) for the table is greater than 61 percent, the table is not published (https://www.census.gov/acs/www/Downloads/survey_methodology/acs_design_methodology_ch13.pdf).
- Sometimes when a table does not meet these reliability tests, a simpler table that collapses some of the detailed lines together may be available for the original, more detailed table.
- Fewer tables are published for the five-year ACS data. For example, 52 detailed poverty tables, only 5 available at the block group level.
Geographic adjustments in the Supplemental Poverty Measure

- Poverty thresholds should be adjusted for price differences across geographic areas using the best available data and statistical methodology.
  - Adjust the housing portion of the threshold
  - American Community Survey (ACS)
  - For Metropolitan Statistical Areas (MSAs) and by non-MSA areas in each State
  - Utilize a 5-year moving average of the data for each year
- Over time this adjustment mechanism may be modified and improved.
- BEA also produces a Regional Price Parity index (RPP)
Impact of Geographic differences in thresholds SPM for states with and without Geographic adjustment compared to OPM

Without adjustment

With adjustment*

ACS median rent index and BEA RPP, by Metro Area
### Example of Thresholds: San Francisco vs. Rural Mississippi

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Source: SPM Threshold from Thesia Garner, May 2011

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<td>Housing Portion of Thresholds</td>
<td>49.7% x 24,874 = $12,122</td>
<td></td>
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<td>Calculation</td>
<td>$12,122 X 1.680 + $12,269 =</td>
<td>$12,122 X 0.638 + $12,269 =</td>
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<td>Adjusted SPM Threshold</td>
<td>$33,634</td>
<td>$20,002</td>
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Official and Research SPM Thresholds for Units with Two Children, Two Adults: 2011

Supplemental Poverty Thresholds

- Official: $22,811
- SPM - with a Mortgage: $25,703
- SPM - without a Mortgage: $21,175
- SPM - renters: $25,222