THE UNIVERSITY OF CHICAGO Harris Public Policy | Comprehensive Income Dataset Project

Poverty Measurement for the Next Generation:

The Final Report of the Interagency Technical Working Group on Evaluating Alternative Measures of Poverty

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Brookings Institution / American Enterprise Institute
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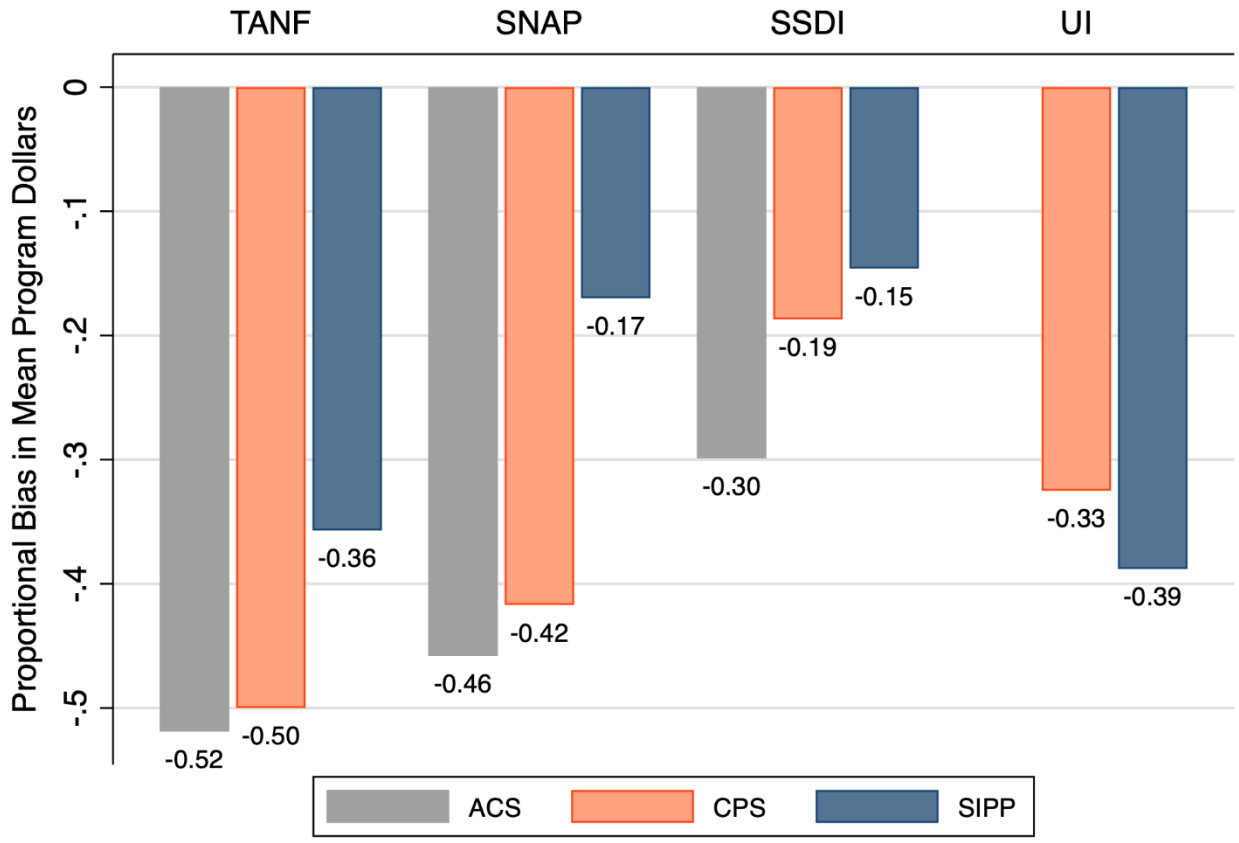
Disclaimer: Any conclusions expressed herein are those of the author and do not represent the views of the U.S. Census Bureau. All results were approved for release by the Census Bureau's Disclosure Review Board, authorization numbers CBDRB-FY20-ERD002-019, CBDRB-FY20-ERD002-020, CBDRB-FY21-ERD002-002, CBDRB-FY21-ERD003-008. I would like to thank Kevin Corinth for his assistance with this presentation.

Motivation for Working Group: Part 1

- Evidence of underreporting of transfers in surveys
- Improvements in the availability and understanding of administrative data

Surveys Understate Income from Government Programs

Proportional Bias in Mean Program Dollars, by Program and Survey, 2000–2012



Source: Meyer, Mok, and Sullivan (2015)

Further Evidence on Underreporting

- Evidence comes from aggregate data on government benefits and linked microdata for individuals
- Earnings and pension income are underreported as well (Bee and Mitchell 2017)
- The problem is getting worse over time
- Research has shown that underreporting affects the bottom line
  - Share below given poverty cutoffs lower
  - Poverty reduction of existing anti-poverty programs is greater

Motivation for Working Group: Part 2

- Evidence that consumption poverty provides useful information
  - Less underreporting
  - Groups such as the elderly and students may have little income, but are often well-off
- Validation of alternative measures through comparisons to other indicators of material deprivation
  - Consumption poverty measures tend to do a better job of selecting those who are deprived as shown by other indicators of deprivation

What is Wrong with Existing Measures?

- The OPM has widely recognized flaws
- 25 years since NAS Measuring Poverty
- The SPM that resulted has many advantages
  - Accounts for taxes and includes in-kind benefits
- Drawbacks to SPM
  - Relies on misreported survey data
  - Complicated thresholds
  - Health insurance and medical costs handled in potentially counterproductive ways
  - Not guided by evidence on whether measure improves on the identification of who is deprived

Working Group Charter

- To consider whether alternative measures should be produced and what those would be
- The alternatives would supplement, not replace existing measures

Process of Working Group

- Established by Chief Statistician of U.S.
- Members were subject matter experts from 11 agencies, no political appointees (career agency members)
- Co-Chairs Kerrie Leslie (Statistical Policy Office, OIRA), Bruce Meyer (Census)
- 46 meetings over two years from January 2019-January 2021
- Interim Report in February 2020
  - Request for Comments, almost 20,000 comments received
- Final Consensus Report in January 2021, 36 recommendations agreed to by all agencies

Recommendations: Summary

- Process for creating alternative poverty measures
- Income resource measure
- Consumption resource measure
- Recommendations applying to both resource measures
- Thresholds
- Future research

Recommendations: Process

- Production
  - Census (income) and BLS (consumption) create/publish poverty measures as soon as possible
  - Each year, publish poverty measures within 12 months of survey data collection
- Development
  - New NAS panel to resolve major undecided issues
  - New Interagency Technical Working Group to address ongoing implementation issues
- Research
  - Recommend research to inform specific aspects of alternative poverty measures

Recommendations: Income

- Use CPS ASEC for survey data source
- Adjust income for taxes
  - Federal, state and local income and payroll taxes and credits
- Include in-kind benefits
  - SNAP, school meals, WIC, LIHEAP, housing assistance
- Link administrative data
  - Replace survey values with administrative values when supported by research
  - Research on why survey and administrative values differ
  - Use regression-based modelling when administrative data not available
  - Use rules-based adjustments when necessary
  - Strengthen data sharing across government agencies

Recommendations: Consumption

- Use CE interview survey as survey data source
- BLS funding for consumption poverty measure
- Expand CE sample to allow for poverty estimates disaggregated to state-level
  - In the interim produce estimates at Census Division level
- Use administrative data when appropriate
  - Housing benefits

Recommendations: Both Resource Measures

- Health insurance
  - Two versions of each resource measure: One with health insurance value, one without
  - Health/disability status should not affect health insurance value
  - Cap health insurance value at share of total resources
- Account for child support
- Deduct/exclude work expenditures including childcare
- Include value of housing and vehicle service flows
  - Further research needed for inclusion in income measure

Recommendations: Thresholds

- Interim thresholds
  - Seek additional expert input for interim thresholds
  - Do not delay resource measure production
  - When resource measures ready, apply interim thresholds immediately
- Final thresholds require additional research
  - Price indices for updating thresholds
  - Equivalence scales that reflect differing needs of adults and children
  - Geographic adjustments
    - Discussion informed by new research on geographic adjustments

Recommendations: Future Research

- Multi-dimensional poverty measures
- Incorporating the homeless and other populations excluded from surveys
- Timely income and poverty measurement
- Reducing survey burden as additional benefit of increased reliance on administrative data

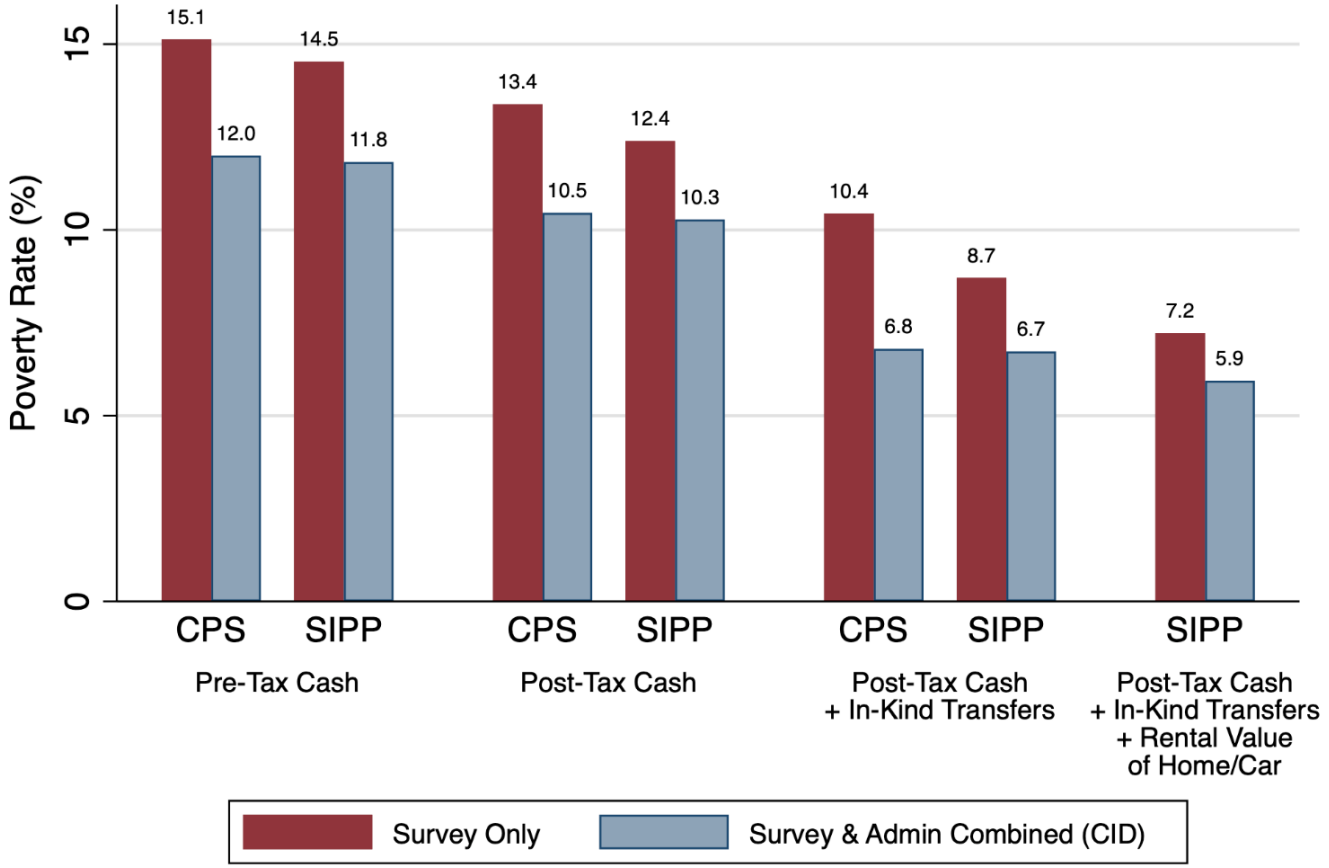
Commentary

- The recommendations also further the availability of administrative data for research
- Would also lead to collection of expenditure data on more people
- CID Project and NEWS Project are examining options and validating methods
- My personal view is that the chosen thresholds
  - Should be simple,
  - Should be transparent and
  - Acknowledge that the level is ultimately arbitrary in the sense that Orshansky, Ruggles, Felegi and others have stated

Appendix

Administrative Data Change our Understanding of Poverty

Percent with Income below Official Poverty Cutoffs, 2010



Sources: 2011 CPS ASEC, Waves 5-8 of 2008 SIPP Panel, Various Administrative Data
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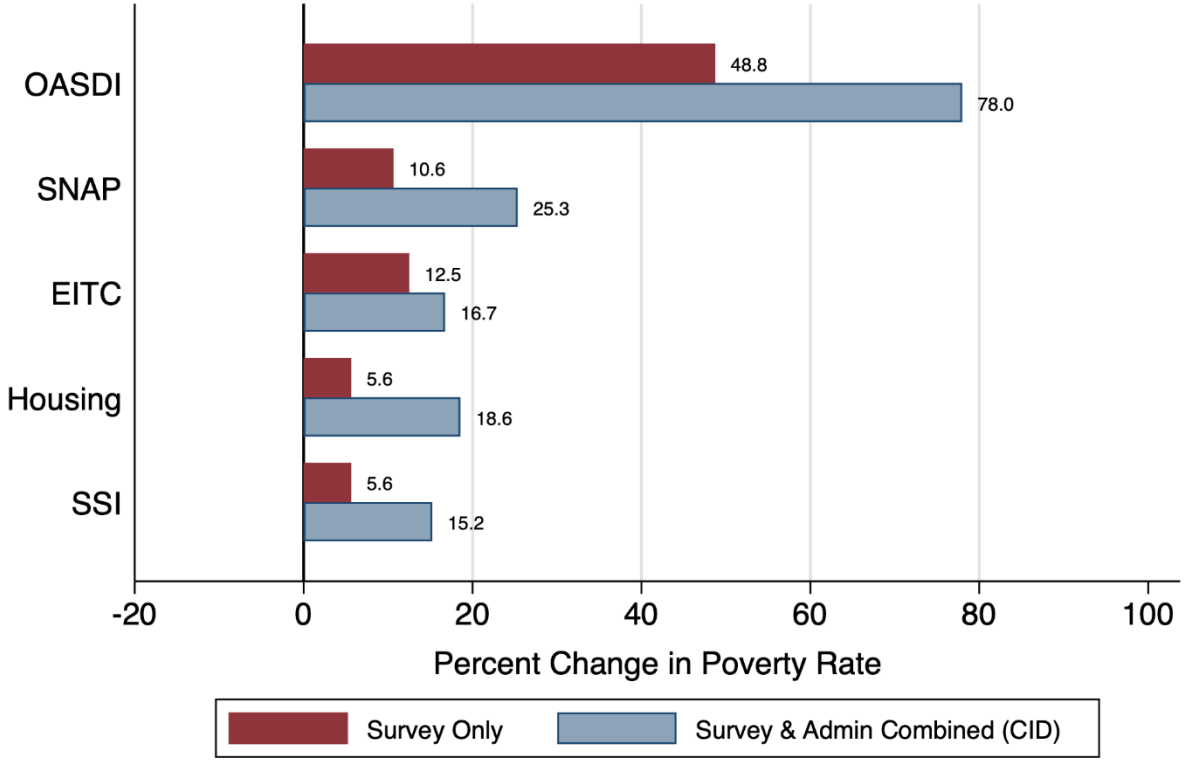
Administrative Data Show Poverty Would Be Higher Without Government Programs

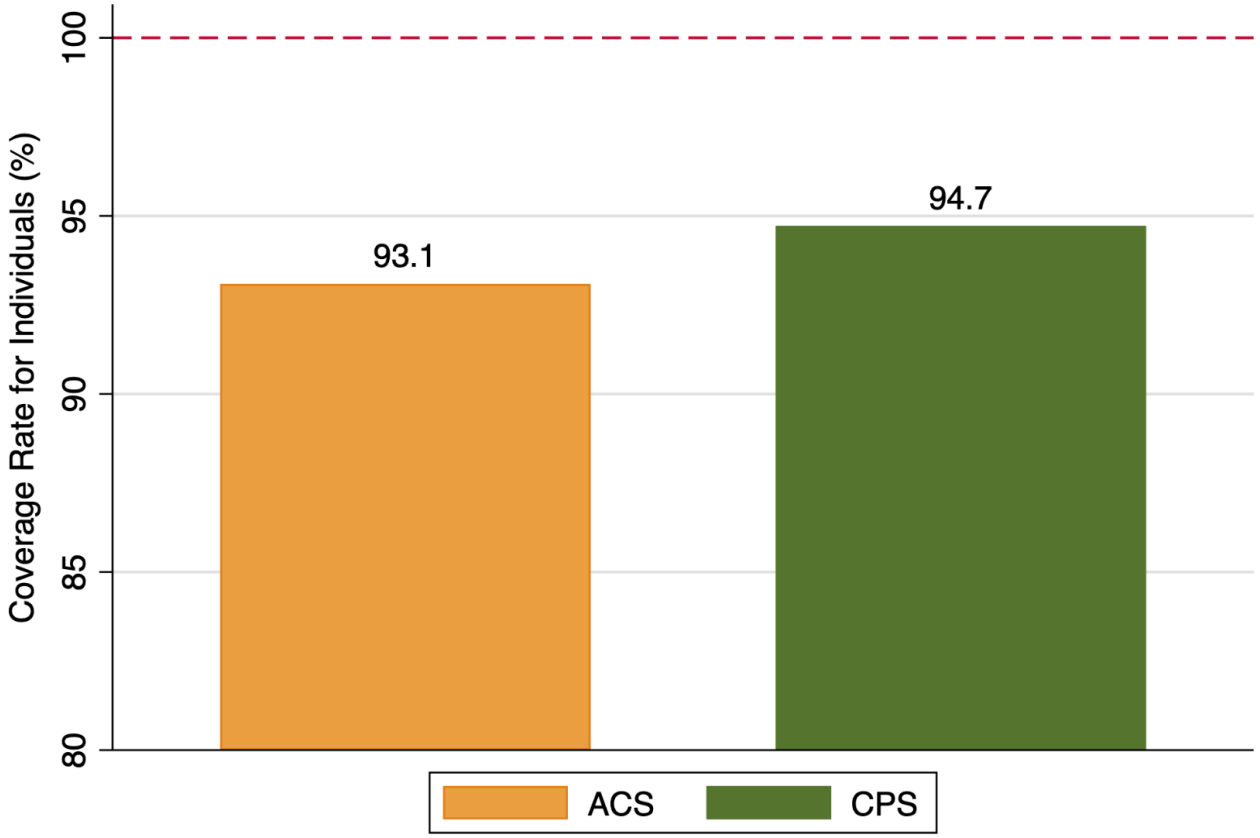
Percent Increase in Poverty Rate in Absence of Individual Programs, 2010



Sources: 2011 CPS ASEC, Various Administrative Data, 2011 & 2010 SPM Reports
Approved for release by the Census Bureau's Disclosure Review Board, authorization number CBDRB-FY20-019
Geography: 15 States with Administrative SNAP Data (for CID Poverty Measure)
Note that survey only estimates are based on SPM

Misreporting is Bigger Problem than Under-Coverage

Coverage Rate of SNAP Recipients in the ACS and CPS, 2006–2016



Sources: 2006-2016 ACS, 2006-2016 CPS ASEC, Administrative SNAP Records
Approved for release by the Census Bureau's Disclosure Review Board, authorization number CBDRB-FY21-ERD003-008

Consumption-Poverty Better Identifies the Most Deprived than Survey-Based Income-Poverty

Mean Characteristics of the Official and Consumption Poor by Poverty Status, Consumer Expenditure Survey, 2010

	Both consumption poor and official poor (1)	*Consumption poor only (2)*	*Official poor only (3)*	*Neither consumption nor official poor (4)*	*+ favors consumption measure*
Consumption	$17,068	$18,956	$36,959	$54,593	+
Any health insurance	59%	55%	65%	80%	+
Private health insurance	20%	35%	34%	73%	–
Homeowner	26%	45%	48%	78%	+
Single family home	17%	36%	38%	68%	+
Own a car	65%	83%	80%	95%	–
Service flows from vehicles	$194	$362	$607	$1,449	+
Service flows from owned homes	$666	$1,368	$3,364	$6,808	+
Total service flows	$859	$1,730	$3,971	$8,257	+
Family size	4.320	4.696	3.103	3.237	+
# of rooms	5.08	5.09	7.04	7.82	+
# of bedrooms	2.61	2.58	3.41	3.69	+
# of bathrooms	1.31	1.36	1.96	2.23	+
Appliances and amenities					
Microwave	90%	92%	95%	98%	+
Disposal	26%	35%	40%	58%	+
Dishwasher	31%	40%	50%	78%	+
Any air conditioning	71%	73%	77%	84%	+
Central air conditioning	42%	48%	53%	69%	+
Washer	65%	77%	75%	91%	–
Dryer	55%	68%	72%	90%	+
Television	95%	94%	97%	99%	+
Computer	56%	66%	70%	90%	+
Head is a college graduate	4%	10%	13%	36%	+
Total financial assets					
75th percentile	$100	$800	$700	$16,025	–
90th percentile	$800	$3,600	$4,200	$109,000	+
Share of people	8%	8%	8%	75%	
Unweighted number of families	2,072	1,632	2,821	21,690	

Source: Meyer and Sullivan (2012)

Final Report Publicly Available

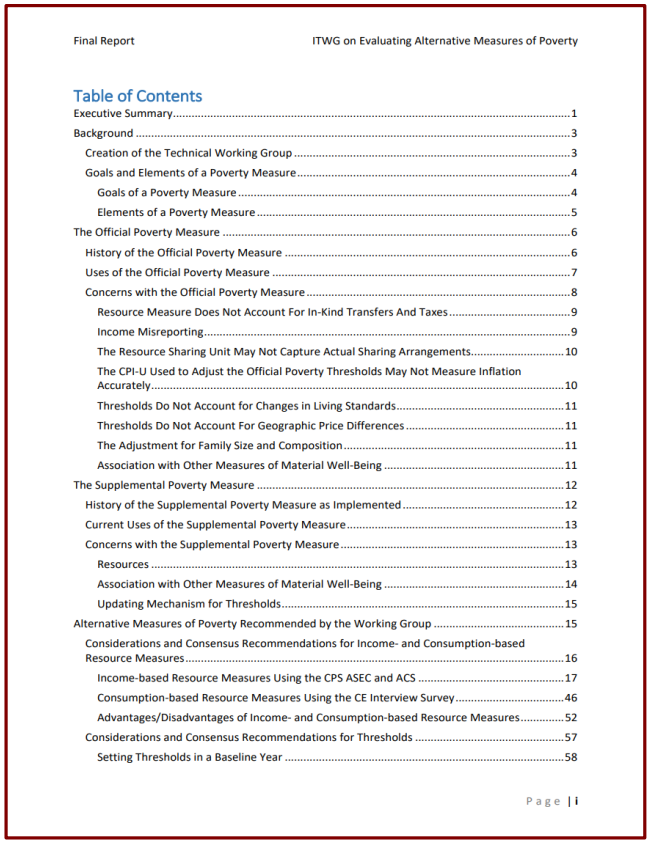
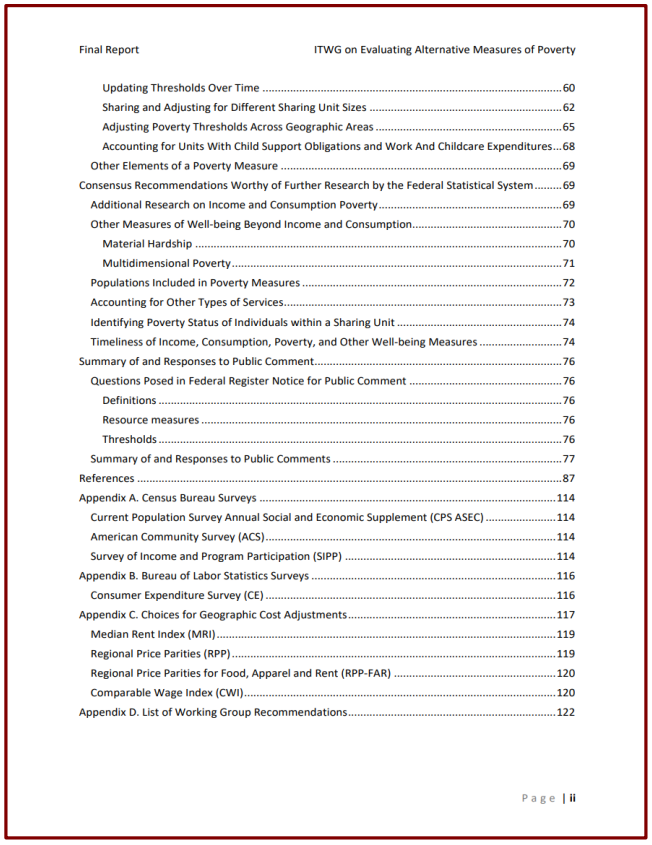


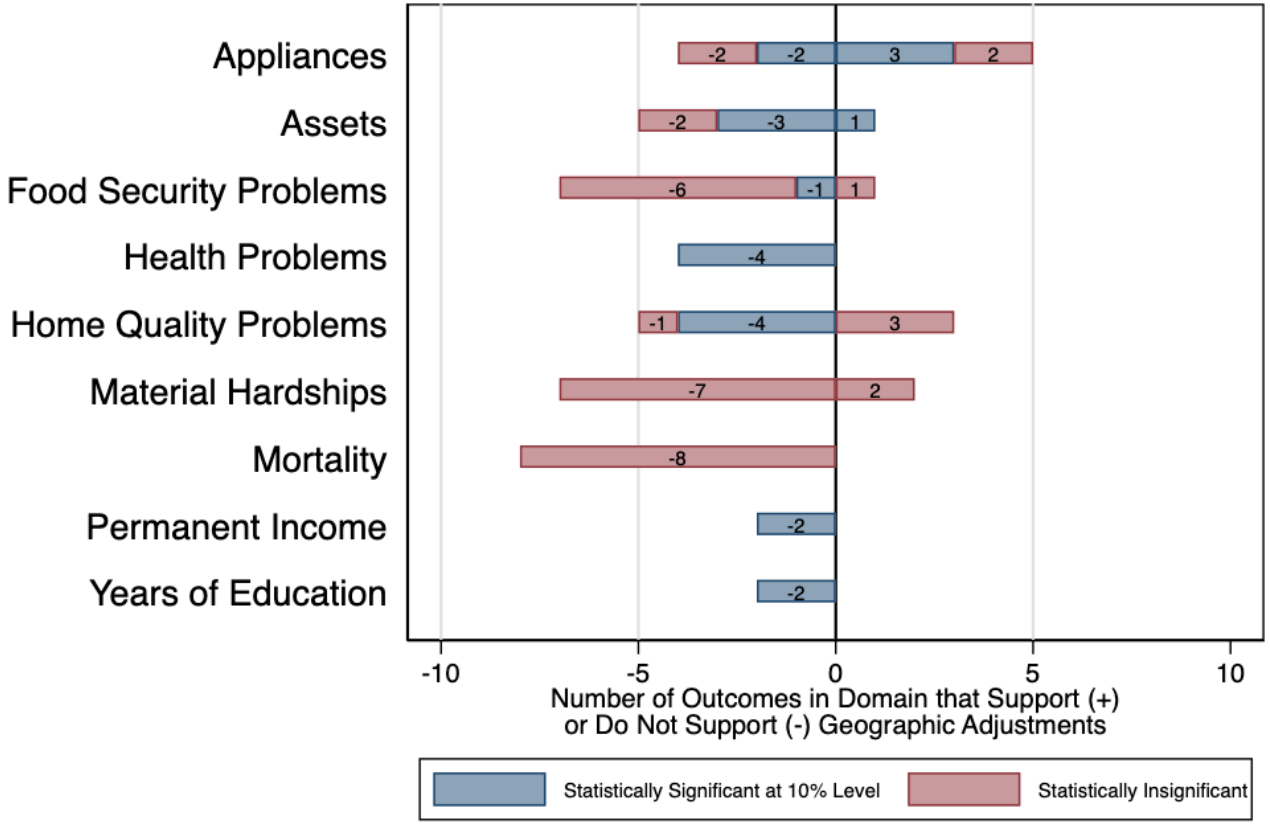
Table of Contents



bls.gov/cex/itwg-report.pdf

Geographic adjustment of thresholds leads SPM to identify less deprived group

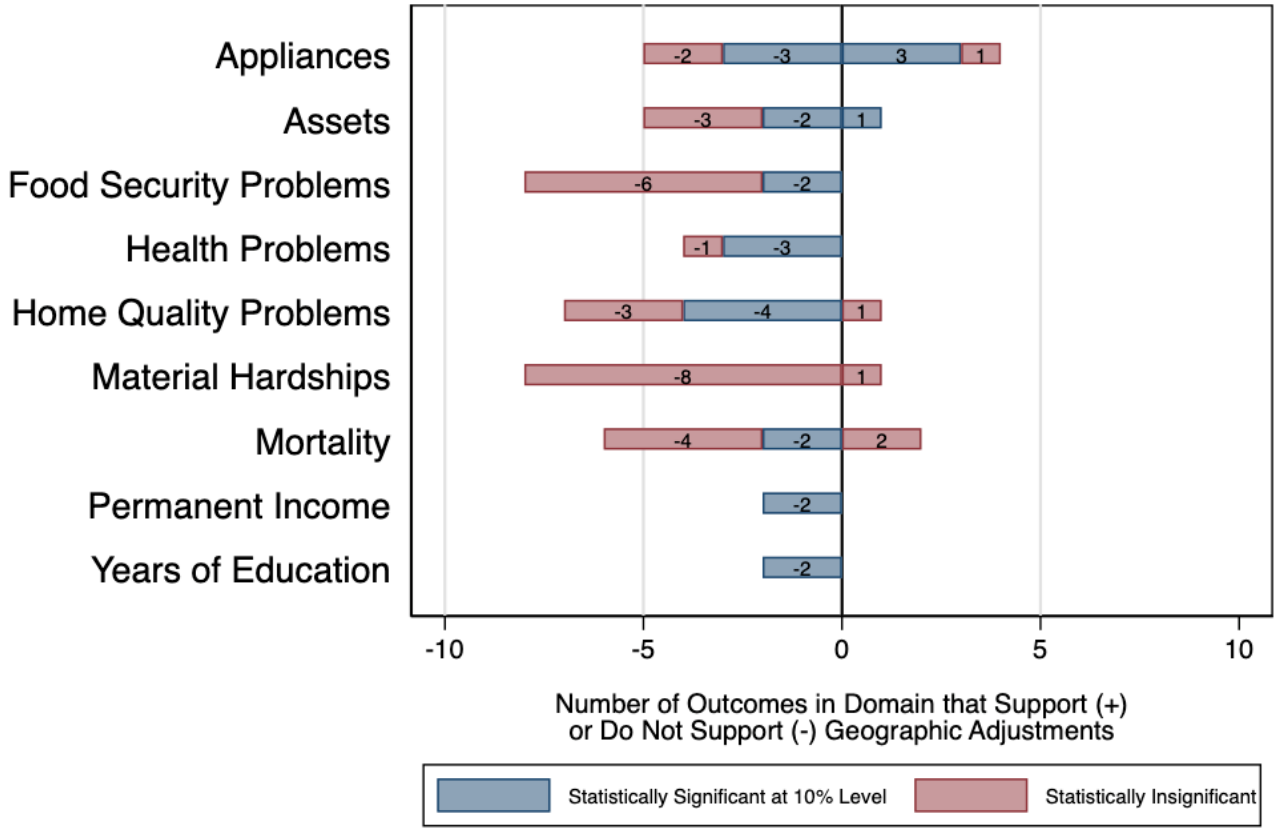
Number of Outcomes for Which a Geographic Adjustment Identifies More (+) or Less (-) Deprived Population: SPM



Sources: 2011 CPS ASEC, Waves 5-8 of 2008 SIPP Panel, Various Administrative Data
Approved for release by the Census Bureau's Discl. Review Board, authorization #s CBDRB-FY20-ERD002-020 & CBDRB-FY21-ERD002-002
Note: Mortality, permanent income, and education domains available in CPS & SIPP; all other domains available in SIPP only

Geographic adjustment of thresholds leads CIPM to identify less deprived group

Number of Outcomes for Which a Geographic Adjustment Identifies More (+) or Less (-) Deprived Population: CIPM



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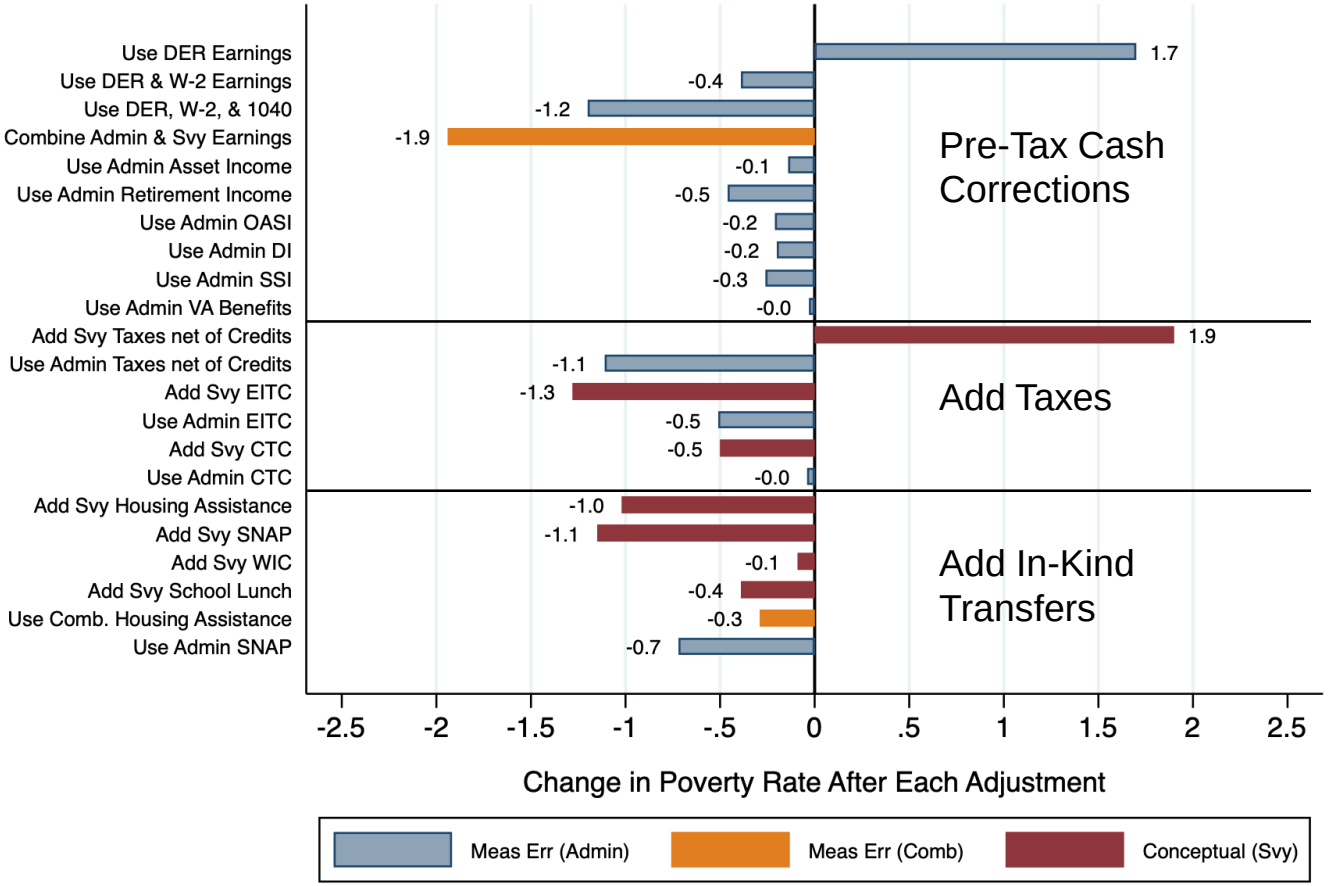
Note: Mortality, permanent income, and education domains available in CPS & SIPP; all other domains available in SIPP only

Specific Administrative Data and Conceptual Changes Affect our Understanding of Poverty

Changes to Poverty After Sequential Adjustments (CPS)



Sources: 2011 CPS ASEC, Various Administrative Data
Approved for release by the Census Bureau's Disclosure Review Board, authorization number CBDRB-FY20-019

Consumption-Poor Tend to Face Greater Relative Deprivation than Income-Poor

Relative Outcomes for the Bottom 5% of Income and Consumption, All Families, CE Survey and PSID

Outcome	Percentiles of income			Percentiles of consumption			
	0–5 (1)	5–100 (2)	Difference (3) = (1) – (2)	0–5 (4)	5–100 (5)	Difference (6) = (4) – (5)	Diff in Diff (7) = (6) – (3)
PSID, 1984–2003							
Total # of rooms in residence (scaled)	5.293	6.419	−1.125	4.638	6.452	−1.814	−0.689*
Have central air conditioning	0.328	0.491	−0.164	0.289	0.493	−0.204	−0.040*
Have a car	0.530	0.905	−0.375	0.668	0.898	−0.229	0.145*
Average number of cars	0.841	1.707	−0.866	1.043	1.697	−0.654	0.212*
Mother does not report poor health	0.904	0.962	−0.058	0.894	0.963	−0.069	−0.011
Health does not limit mothers work	0.742	0.824	−0.082	0.696	0.826	−0.131	−0.049*
No other family members in bad health	0.950	0.959	−0.009	0.931	0.960	−0.029	−0.020
Not food insecure	0.760	0.929	−0.170	0.775	0.928	−0.153	0.016
Did not go hungry	0.950	0.981	−0.030	0.919	0.982	−0.063	−0.033
Have no children in poor health	0.994	0.995	−0.002	0.987	0.996	−0.009	−0.008*

Source: Meyer and Sullivan (2012)

Consumption-Poor Face Greater Number of Relative Deprivation Outcomes than Income-Poor

Summary of the Number of Relative Outcomes that Favor Income or Consumption, CE Survey and PSID

	Number favouring income (1)	Number significantly favouring income (2)	number favouring consumption (3)	Number significantly favouring consumption (4)
CE Survey (19 outcomes)				
All single-mother headed families				
Comparing bottom 5% to top 95%	0	0	19	15
Comparing bottom 10% to top 90%	0	0	19	15
All families with head 65 or over				
Comparing bottom 5% to top 95%	1	0	18	17
Comparing bottom 10% to top 90%	0	0	19	17
All families with head that is disabled				
Comparing bottom 5% to top 95%	7	2	12	6
Comparing bottom 10% to top 90%	6	1	13	9
PSID (10 outcomes)				
All single-mother headed families				
Comparing bottom 5% to top 95%	2	0	8	2
Comparing bottom 10% to top 90%	3	1	7	0
All families with head 65 or over				
Comparing bottom 5% to top 95%	3	0	7	1
Comparing bottom 10% to top 90%	5	3	5	1
All families with head that is disabled				
Comparing bottom 5% to top 95%	2	0	8	0
Comparing bottom 10% to top 90%	5	0	5	0

NOTES: The outcomes summarized here are the same as those listed in table 7. The results compare the top and bottom parts of the distributions for a given demographic group (i.e. the bottom and top 5% of the consumption distribution of single-mother headed families, not all families). Columns 2 and 4 refer to statistical significance at the 5% level. See the text for sample definitions and the notes to table 7 for additional details.

Source: Meyer and Sullivan (2011)