The Use and Misuse of Income Data and Extreme Poverty in the United States

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Introduction: The CID

- Paper from an unprecedented new project that assembles and links survey, tax, and transfer program data
- We call it the Comprehensive Income Dataset (CID) Project (Medalia et al. 2018)
- Goals are to 1) improve household surveys and tax administration and 2) understand poverty, inequality, and the effects of government transfers
- Focus on extreme poverty first because results less sensitive to methods and gaps in data; improvements to official poverty next

Introduction: Past Claims

- Claims of extreme poverty
  - 4.3% of non-aged households with children under $2/day in monthly cash income in 2011 SIPP (Shaefer and Edin 2013)
  - 5.3 million people under $4/day in 2015, from Povcal/LIS/CPS (Deaton 2018); highlighted in UN HRC poverty report
- Also claims of high rates of people who have no earnings and receive no government benefits, focusing on single mothers (“the disconnected”)
  - See Turner, Danziger, and Seefeld (2006), Blank and Kovak (2009), Loprest (2011), Loprest and Nichols (2011)
- Shaefer and Edin contend extreme poverty rates risen greatly over time due to welfare reform. Blank and Kovak have similar finding

Conflicting Evidence

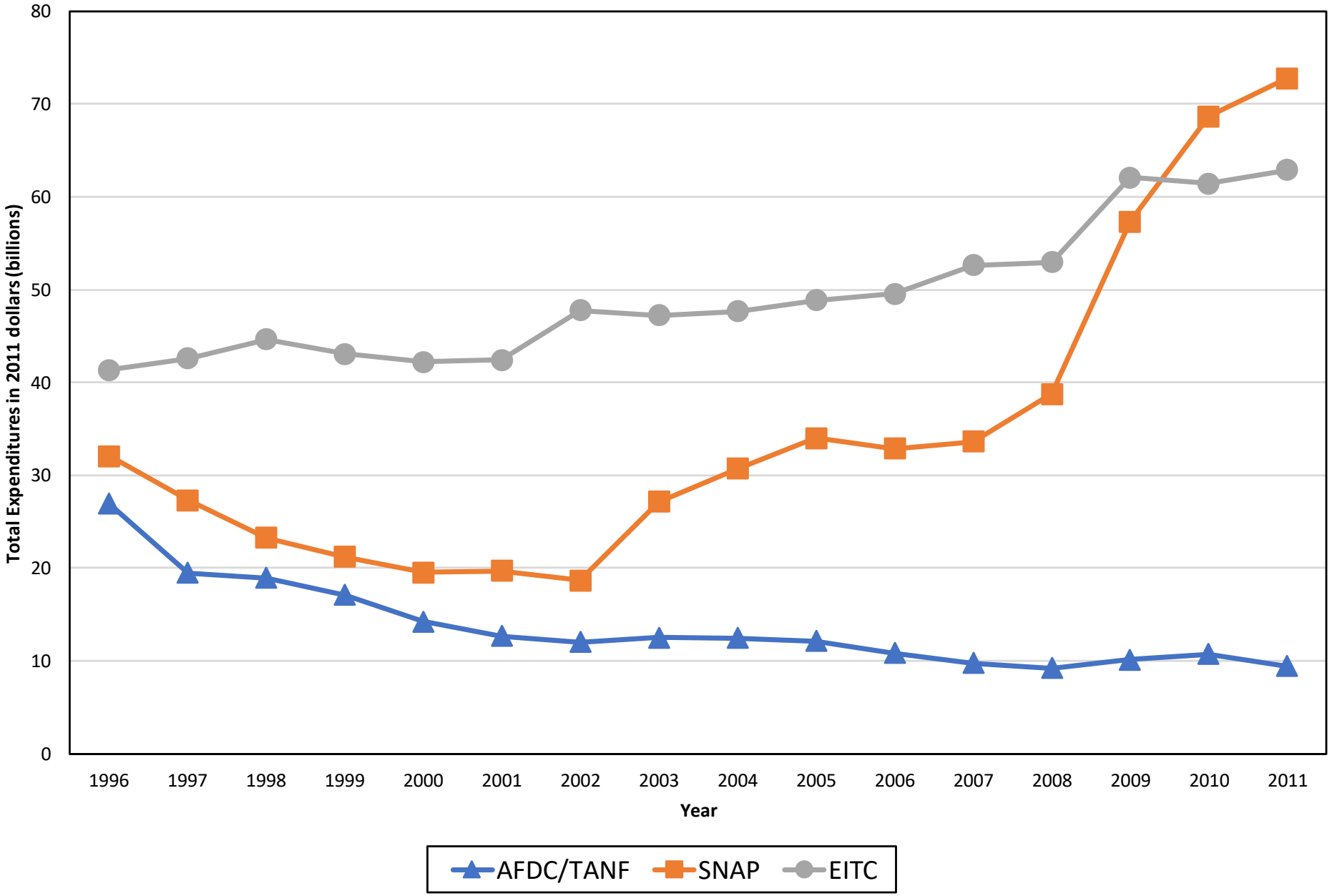
- Studies of household spending find few spend less than $10/person/day and that the percentage has been declining
- Meyer and Sullivan (2003, 2004, 2008, 2012) argue that one should rely on consumption to assess poverty; low income households have high consumption; low percentiles of consumption rise in period after welfare reform; deep consumption poverty has fallen sharply over time
- Preceded by series of papers by Jencks, Mayer
- Chandy and Smith (2014) CE consumption: level of $2/day consumption poverty low
- Winship (2016) CPS income including health benefits, with better price index, using TRIM3: low level and LR trend down, SR up
- Hall and Rector (2018) CE: $4/day poverty nonexistent; deep poverty fallen to 25 percent earlier level

Why are Extreme Poverty Rates from Survey Cash Reports so High?

Calculations ignore in-kind transfers

- Most means-tested transfers in-kind; generally accepted that they should be counted as income
  - See Ellwood and Summers (1986), Citro and Michael (1995), Blank (2008), Winship (2016), SPM reports
- SNAP payments are close to cash (Ben-Shalom, Moffitt, and Scholz 2012), and gross rents are close to market rents (Olsen 2017)
- Some studies argue that a dollar of transfers may be valued more than a dollar of earnings as transfer programs may have insurance value
  - See Blundell, Pistaferri, and Preston (2003), Blundell (2014), Deshpande (2016)
- Research needs to include in-kind transfers (and tax credits) to provide valid comparisons over time

Trends in Benefits for Selected Transfers, 1996-2011



Why are Extreme Poverty Rates from Survey Cash Reports so High? (cont.)

They rely on survey income data with substantial errors

- There are significant holes in income data
  - 63% and 44% of Public Assistance recipients do not report in the CPS and SIPP (Meyer and Mittag 2019)
  - 46% of pension income recipients do not report in CPS (Bee and Mitchell 2017)
  - 43% and 19% of SNAP recipients do not report in CPS and SIPP (Meyer and Mittag 2019)
- These holes have gotten bigger over time

Why are Extreme Poverty Rates from Survey Cash Reports so High? (cont.)

Errors in income likely pronounced at the very bottom

- Reported expenditures usually a multiple of reported income in left tail suggesting error in income reports
  - Patterns found in U.S., British, and Canadian data
  - See Jencks; Meyer and Sullivan (2004, 2008), Brzozowski and Crossley (2011), Brewer, Etheridge, and O'Dea (2017), Hall and Rector (2018)

This Paper

- Many households severely deprived but we want the facts on who and their prevalence
- Re-examine extreme poverty rates in 2011 starting from the most cited estimates: impute minimum wage earnings when earnings misreported; include housing, WIC, SNAP; replace survey with admin reports; exclude those with substantial assets
- Improve the measurement of extreme poverty by better using survey information and employing administrative data
  - We estimate that one-quarter of one percent of households and one-tenth of one percent of individuals are living on less than $2/person/day
  - More than 90% of survey-reported extreme poor are misclassified
- Validate the corrections using multiple sources
  - 47-65% of groups reclassified due to underreported earnings or substantial assets are above poverty line per admin data (approx. $20/person/day)
  - These groups have material hardship levels similar to U.S. mean
  - Confirm that no households the survey data indicate are not extreme poor are extreme poor according to combined data—here we use max of survey and admin values for earnings, housing
- Since extreme poverty is so low post-reform, it cannot be **meaningfully** higher due to welfare reform

Data: SIPP

- Survey of Income and Program Participation (SIPP)
- Responses include information about income (sources and amount), program participation, assets, hardships, housing characteristics, and demographics
- Interviews conducted in staggered 4-month waves
- Use wave 9 of 2008 panel; covers January-July of 2011
  - Also bring in information from topical modules corresponding to waves 6, 7, 9, and 10, which refer to time periods spanning January 2010 to November 2011
- ~32,000 households
- Does not include the homeless – no major household survey does; ACS includes those in shelters

Data: Administrative Sources

Income Source	Administrative Source	Income Unit	Income Frequency
Earnings	DER (SSA)	Individual	Annual
Asset Income	Form 1040 (IRS)	Tax Unit	Annual
Retirement Distributions	Form 1099-R (IRS)	Individual	Annual
OASDI	PHUS (SSA)	Individual	Monthly
SSI	SSR (SSA)	Individual	Monthly
EITC	Form 1040 (IRS)	Tax Unit	Annual
SNAP	State Agencies	Household	Monthly
Housing Assistance	PIC & TRACS (HUD)	Household	Monthly

Data: Linking

- Protected Identification Key (PIK): anonymized version of SSN
- SIPP PIK rate, nearly 97% of households have an individual with a PIK
- Admin data PIK rate over 99% for most types of admin records
- Link survey and admin data by PIK and adjust for incomplete linkage to PIKs in SIPP at household level

Methodology: Outline

- Start with survey-reported pre-tax cash income: calculate households living on less than or equal to $2/person/day
- Use average amounts within a wave
- Incorporate in-kind transfers, undertake conservative corrections for errors in reported earnings, and account for assets
- Bring in administrative data on taxable income, transfer programs, and EITC
- Separate into mutually exclusive and exhaustive household types: elderly, single parents, multiple parents, single individuals, multiple adults
- Importantly, we validate our choices with info on hardships, living conditions, incomes from administrative data

Estimates of Extreme Poverty

Percentage of Households in Extreme Poverty

Specification	(1) All Households	(2) Elderly	(3) Single Parents	(4) Multiple Parents	(5) Single Childless	(6) Multiple Childless
Survey-Reported Cash	2.97	0.46	8.99	2.04	6.85	1.90
Survey-Only Adjustments						
Add In-Kind Transfers	2.04	0.42	2.80	1.16	5.58	1.58
Correct Wage/Salary Earnings	1.83	0.37	2.66	0.94	5.12	1.39
Correct Self-Emp. Earnings	1.30	0.35	1.97	0.53	4.04	0.75
Account for Assets*	0.84	0.13	1.35	0.27	2.86	0.44
Administrative Data Adjustments						
Correct Earnings	0.42	0.11	0.54	0.11	1.63	0.08
Correct Other Tax Income	0.31	0.06	0.10	0.08	1.29	0.08
Correct OASDI, SSI, Hous. Assist.	0.27	0.01	0.10	0.06	1.18	0.07
Correct SNAP	0.24	0.00	0.00	0.00	1.12	0.07
Population Estimates						
U.S.	118,600,000	26,070,000	6,917,000	31,670,000	22,530,000	31,430,000
SNAP States	34,360,000	7,356,000	2,035,000	9,290,000	6,642,000	9,036,000
Sample Sizes						
U.S.	31,500	8,000	1,500	8,300	5,200	8,500
SNAP States	10,000	2,500	500	2,700	1,600	2,700

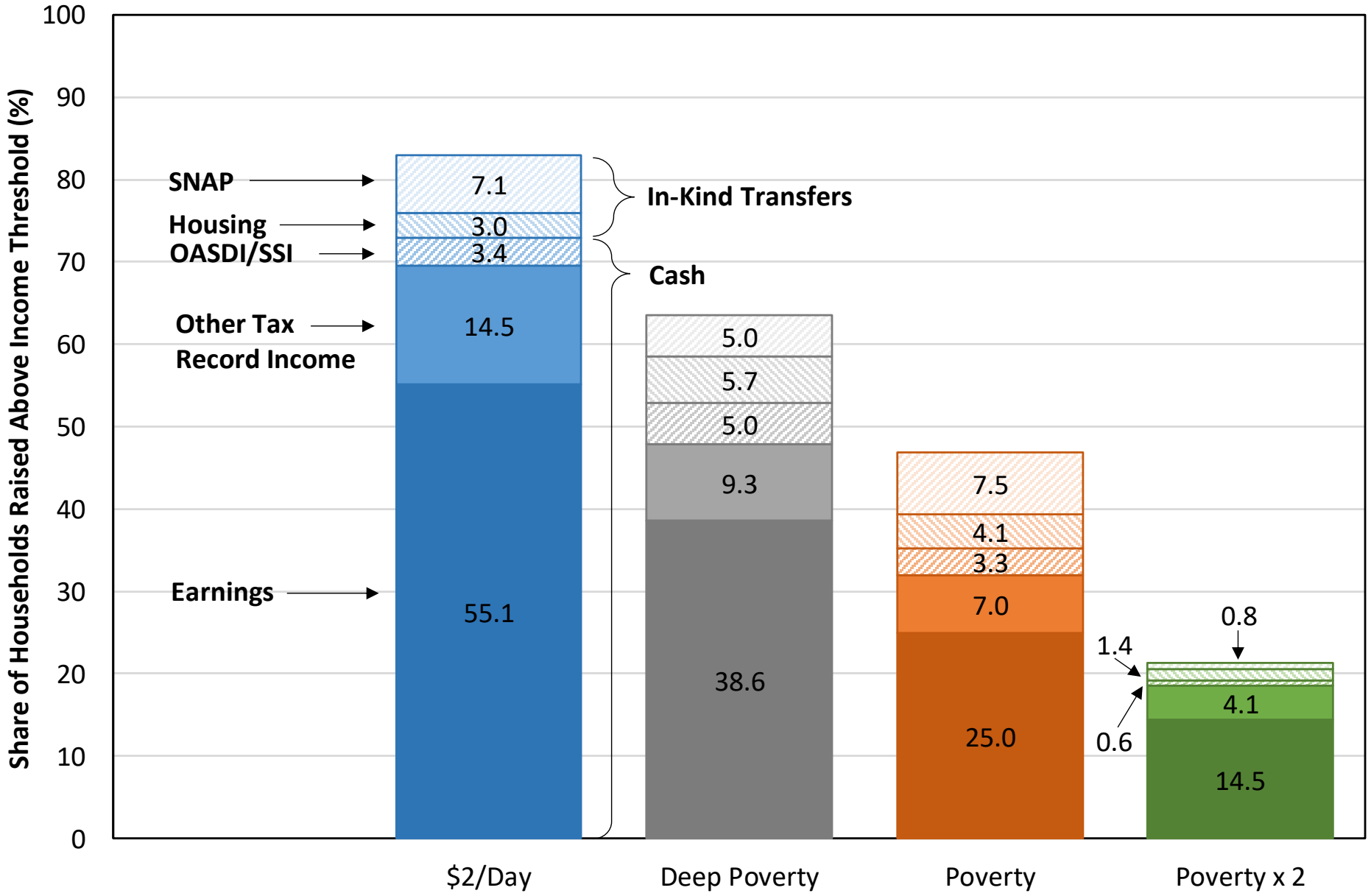
*Real estate equity > $25,000, liquid assets > $5,000, or total net worth > $50,000.

Percentage of Individuals in Extreme Poverty

Specification	(1) All Households	(2) Elderly	(3) Single Parents	(4) Multiple Parents	(5) Single Childless	(6) Multiple Childless
Survey-Reported Cash	2.60	0.47	9.56	2.11	6.85	1.83
Survey-Only Adjustments						
Add In-Kind Transfers	1.57	0.43	2.65	1.20	5.58	1.50
Correct Wage/Salary Earnings	1.37	0.36	2.53	0.95	5.12	1.33
Correct Self-Emp. Earnings	0.90	0.35	1.93	0.52	4.04	0.75
Account for Assets*	0.57	0.11	1.49	0.28	2.86	0.46
Administrative Data Adjustments						
Correct Earnings	0.24	0.09	0.64	0.10	1.63	0.09
Correct Other Tax Income	0.17	0.06	0.12	0.07	1.29	0.09
Correct OASDI, SSI, Hous. Assist.	0.14	0.01	0.12	0.05	1.18	0.07
Correct SNAP	0.11	0.00	0.00	0.00	1.12	0.07
Population Estimates						
U.S.	305,600,000	45,540,000	18,770,000	138,300,000	22,530,000	80,460,000
SNAP States	88,610,000	13,030,000	5,358,000	39,990,000	6,642,000	23,590,000
Sample Sizes						
U.S.	82,200	14,500	4,500	37,000	5,200	21,000
SNAP States	26,400	4,500	1,400	12,000	1,600	6,700

*Real estate equity > $25,000, liquid assets > $5,000, or total net worth > $50,000.

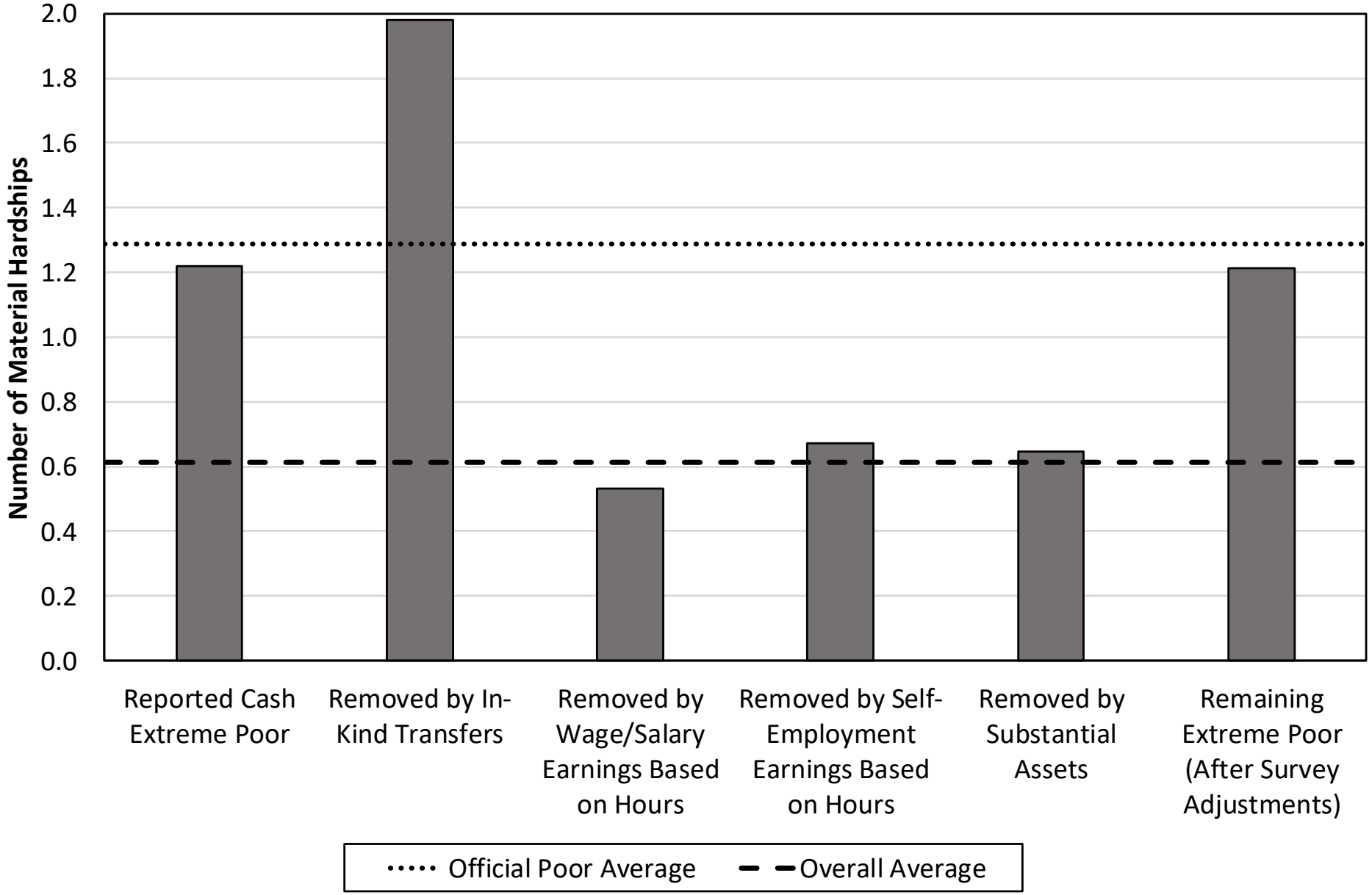
Share of Reported Cash Extreme Poor Households Raised Above Income Thresholds by Administrative Data



Selected Characteristics of Extreme Poor and Comparison Households

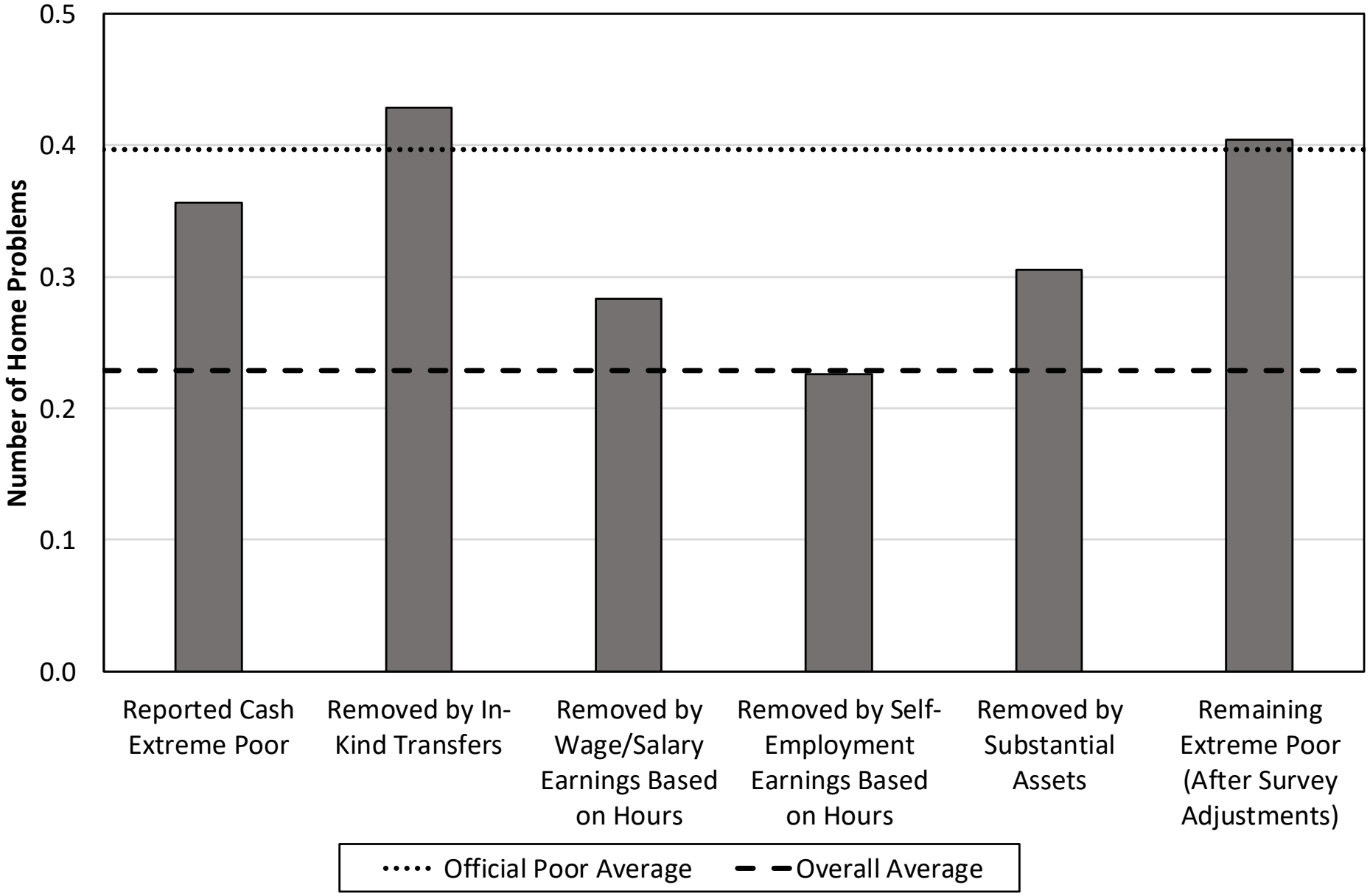
Mean Number of Material Hardships of Extreme Poor Subgroups

2011 SIPP (Wave 9 of 2008 Panel), Survey Data Only



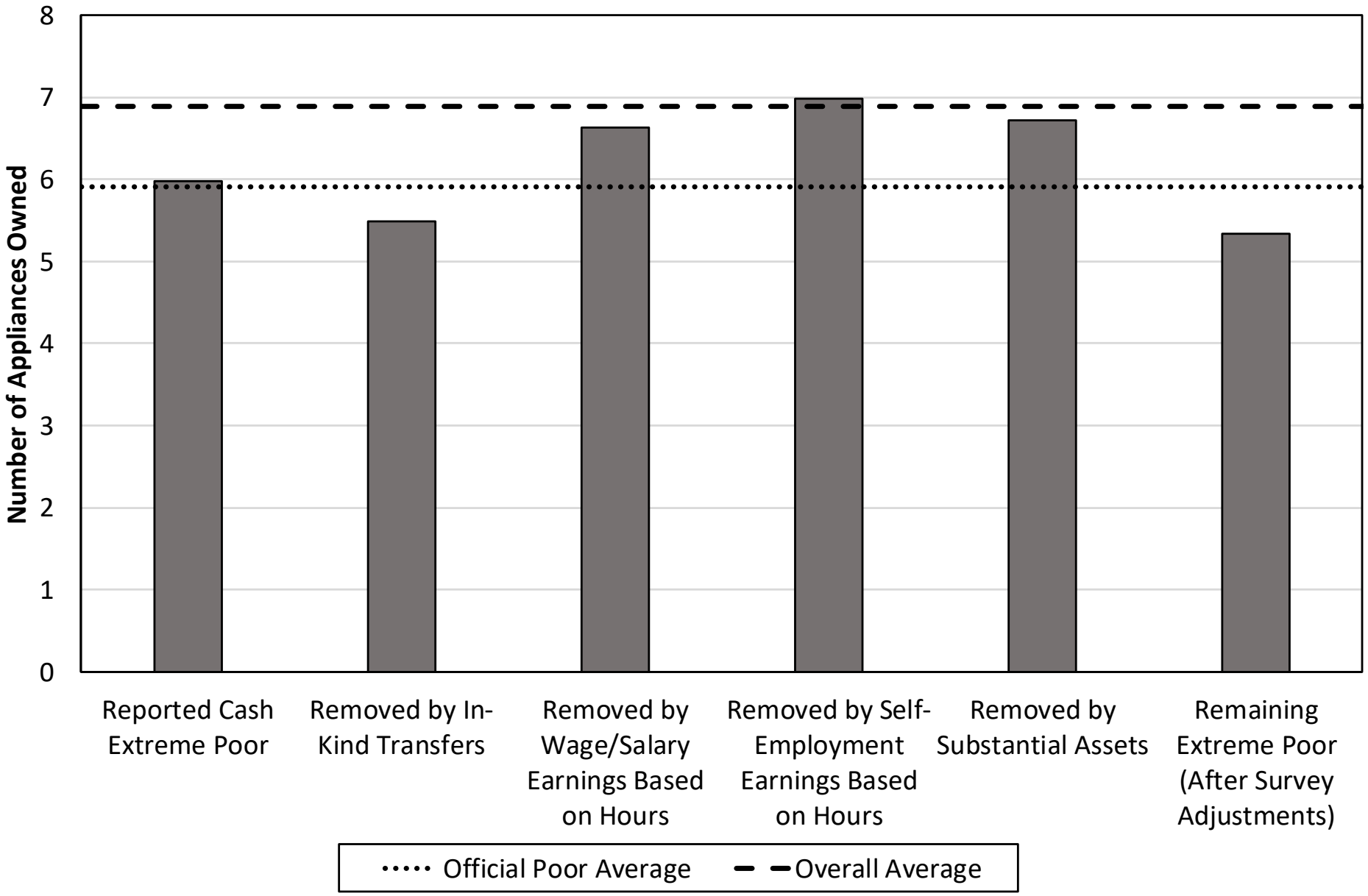
Mean Number of Home Problems of Extreme Poor Subgroups

2011 SIPP (Wave 9 of 2008 Panel), Survey Data Only



Mean Number of Appliances Owned by Extreme Poor Subgroups

2011 SIPP (Wave 9 of 2008 Panel), Survey Data Only



Do Our SIPP Results Generalize to CPS?

- Use 2012 CPS ASEC (covering reference year 2011)
- Results are remarkably similar between surveys, with a few differences:
  - CPS has considerably fewer inconsistencies between reported earnings and reported hours worked
  - “Final” extreme poverty rate for CPS slightly lower than for SIPP – consistent with annual poverty ≤ 4 month wave poverty

Comparison of CPS and SIPP Extreme Poverty Estimates for All Households

Specification	(1) CPS		(2) SIPP - Aligned Adjustments		(3)	(4) SIPP - Original Adjustments	(5)
	Rate (%)		Rate (%)	Diff. In Rates, CPS - SIPP (pp)		Rate (%)	Diff. In Rates, CPS - SIPP (pp)
Survey-Reported Cash	2.08		2.97	-0.89***		2.97	-0.89***
Survey-Only Adjustments							
Correct Wage/Salary Earnings	2.05		2.68	-0.63***		2.68	-0.63***
Correct Self-Emp. Earnings	2.03		2.07	-0.04		2.07	-0.04
Add In-Kind Transfers[1]	1.35		1.30	0.05		1.30	0.05
Account for Assets[2]	0.80		0.96	-0.16*		0.84	-0.04
Admin. Data Adjustments							
Correct Tax Income	0.34		0.35	-0.01		0.31	0.03
Correct OASDI, SSI, Hous. Assist.	0.21		0.31	-0.10**		0.27	-0.06
Correct SNAP	0.18		0.29	-0.11**		0.24	-0.06

***p<0.01, **p<0.05, *p<0.1

1. SNAP, WIC, and housing assistance in SIPP (original adjustments). SNAP and housing in CPS, SIPP (aligned adjustments).

2. For SIPP (original adjustments), owns real estate equity > $25,000, liquid assets > $5,000, or total net worth > $50,000. For CPS and SIPP (aligned adjustments), household has home value > $25,000 and has no mortgage, or has home value > $100,000 and has a mortgage.

Robustness Checks

- Results for last month of wave similar (scale up 25%)
- Estimates for $4/person/day cutoff about 20% higher
  - We also examine deep poverty (half the poverty line)
- 11 states with administrative SNAP have similar characteristics to entire U.S.
- Distinction between household and family not key as 94% of reported extreme poor households have one family
- Results excluding housing assistance from in-kind transfers similar (SNAP much more important)
- Industries and occupations not unusual for those reporting low (mostly zero) wage/salary earnings but substantial hours; those with self employment look like they have cash jobs

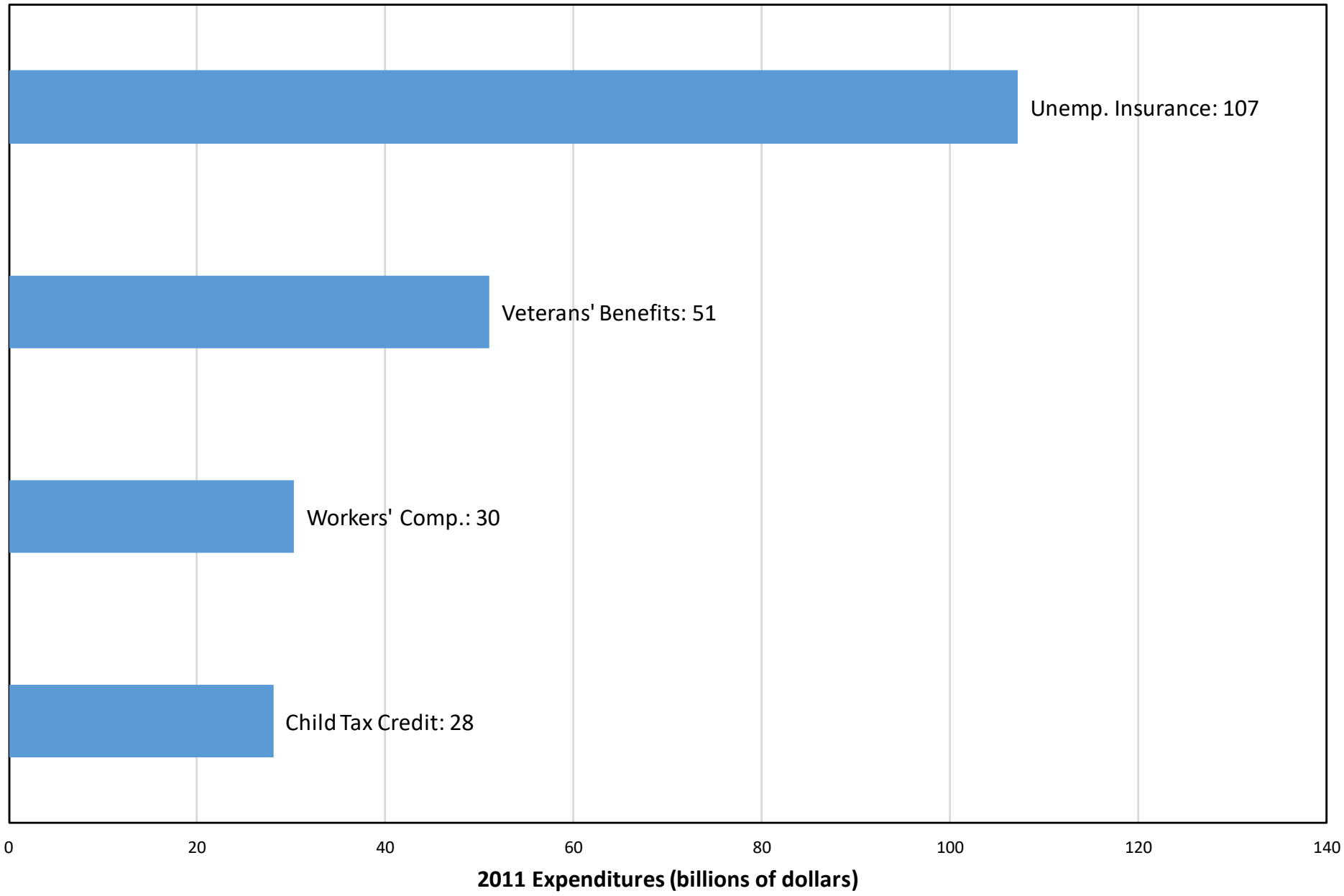
Further Checks

- Almost no households with survey incomes above $2/day fall below $2/day after applying admin data and removing imputed earnings
  - I.e., take maximum of survey and admin values for earnings and housing assistance, replace survey with admin values for other cash income sources (asset/retirement income, OASDI, SSI), add admin SNAP and EITC, and set imputed earnings to zero
- Trivial changes from
  - Not using hours that have been imputed
  - Excluding assets in retirement accounts
  - Imputing half minimum wage to those with hours but no or extremely low reported earnings

Additional Caveats

- Why we might understate extreme poverty
  - Allocate earnings from tax records evenly across year
  - EITC amounts are eligible rather than actual amounts
  - Do not account for taxes paid
  - SIPP does not include homeless in survey frame
- Why we might overstate extreme poverty
  - Still miss admin data on veterans' benefits, workers' comp., unemployment insurance, TANF, GA, Child Tax Credit
  - Incomplete linking means can't bring in available data for all survey respondents
  - Cannot link asset information in topical modules from other waves to some households due to attrition across waves
  - Time period (2011) is near peak of severe recession

Expenditures on Four Largest Transfer Programs Not in Admin Data



Conclusions: Main Takeaways

- When we look closely at the SIPP and incorporate admin data, we find that few (0.24% of households, 0.11% of individuals) live on less than $2/day in U.S.
  - All survey households with children not in extreme poverty
  - Many of those that naïve analyses include in extreme poverty are better-off than the average household
  - Consistent with finding in literature that survey income data at the very bottom are error-ridden and likely to be outliers
  - Consistent with low rates of deep consumption poverty
- Face of extreme poverty quite different from what has been previously emphasized
  - Vast majority of extreme poor are single individuals
- Transfers, especially in-kind benefits, are well-targeted to the needy

Conclusions: Main Takeaways (cont.)

- Extreme poverty could not have risen due to welfare reform because it is rare for households with children
- We provide an explanation for the poor ability of the SPM to select those with low material well-being – it reclassifies as non-poor those with in-kind transfers (who are very needy) and leaves as poor those who are misclassified because of assets or unreported income
- We lay out a methodology for how income data can be better used to measure poverty
- Given the errors, extreme poverty probably not a useful concept – should focus on deep poverty and poverty
- The same errors undermine estimates of deep poverty and poverty as many of those reported to be at bottom truly above poverty line

Conclusions: Next Steps

- Bring in additional administrative data (including veterans' benefits, unemployment insurance, child support and workers' compensation, as well as other earnings data) to further improve measurement of poverty
- Replace asset check with flow value of housing and vehicle equity
- Examine post-tax measures of poverty
- Apply similar methodology of addressing survey errors to other cutoffs. Initial results suggest will change our understanding of who is deep poor and poor
- Use richness of the SIPP to better understand the barriers to success faced by those who are truly poor
- Use rich SIPP data and admin data to better examine program targeting

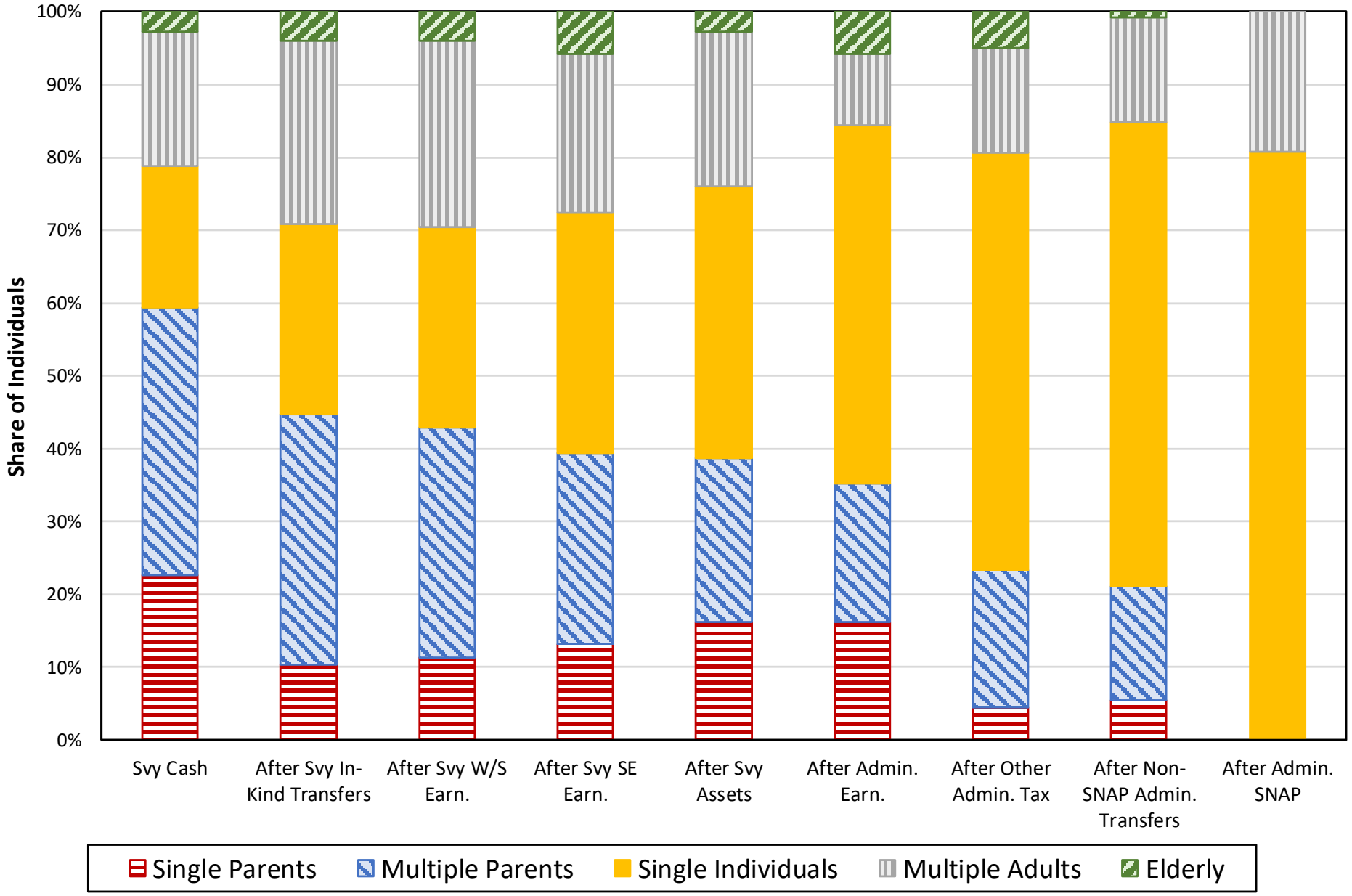
Conclusions: Later Steps

- Further examine the single individual households that appear to have significant numbers in extreme poverty
- Examine shelter homeless in ACS, all homeless in 2010 Census using survey responses and linked administrative data
  - Also will examine HMIS data for two large metro areas
- Further explore barriers faced and measures of disadvantage of those who are deep poor/poor after all improvements to measurement

Extra Slides

Household Type Distribution of Extreme Poor Subgroups After Adjustments

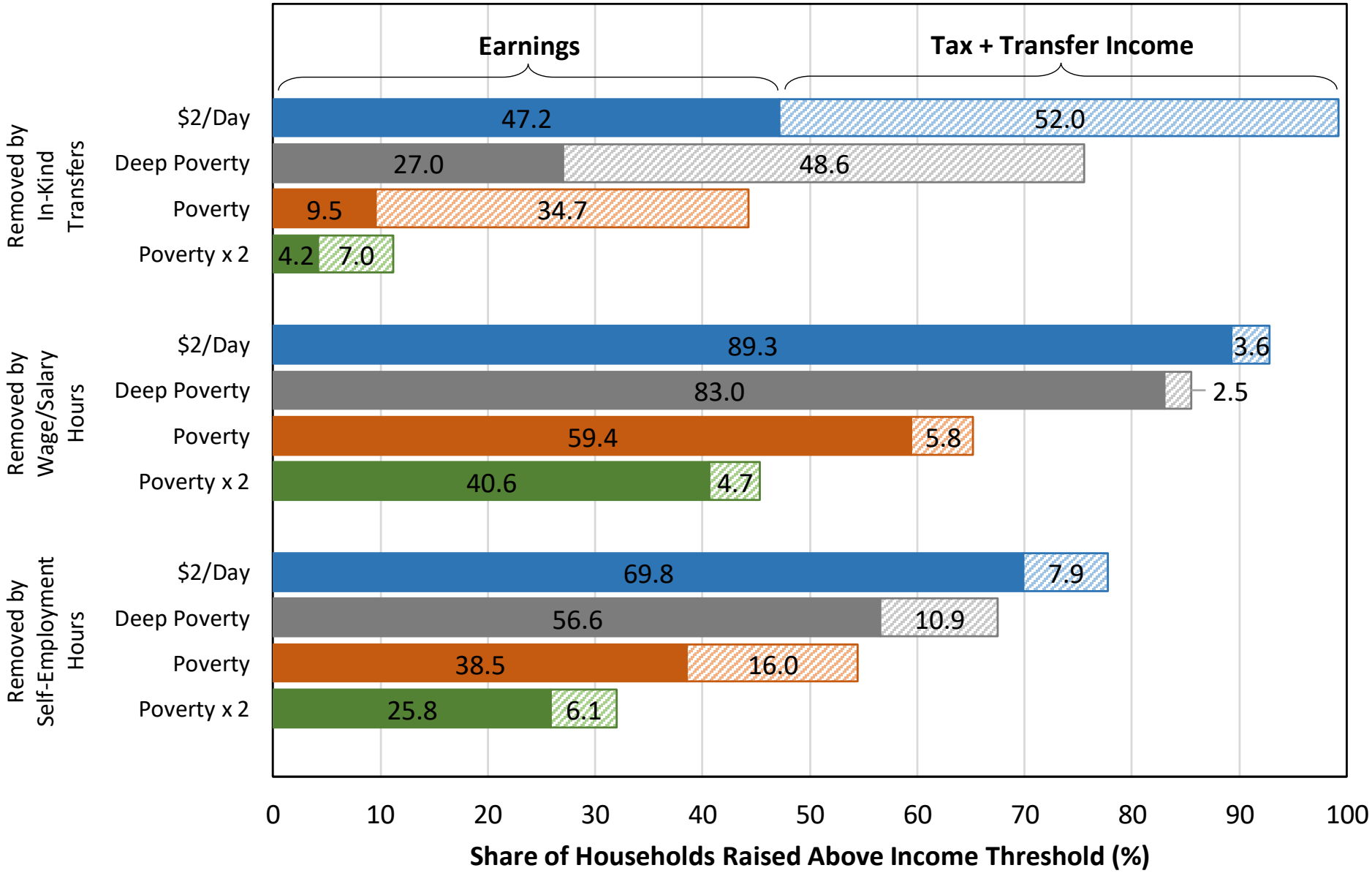
Share of Individuals



What Other Income Sources Might We Miss?

- From Christopher Jencks' introduction to *Making Ends Meet* (by Kathy Edin):
  - "*Making Ends Meet* shows that almost all poor single mothers supplement their regular income with some combination of off-the-books employment and money from relatives, lovers, and the fathers of their children. Few keep a record of such income. Even if they knew the annual total, they would not necessarily report it to the Census Bureau, since they do not report it to the Internal Revenue Service." (p. xi)

Share of Households in Extreme Poor Subgroups Raised Above Income Thresholds by Administrative Data



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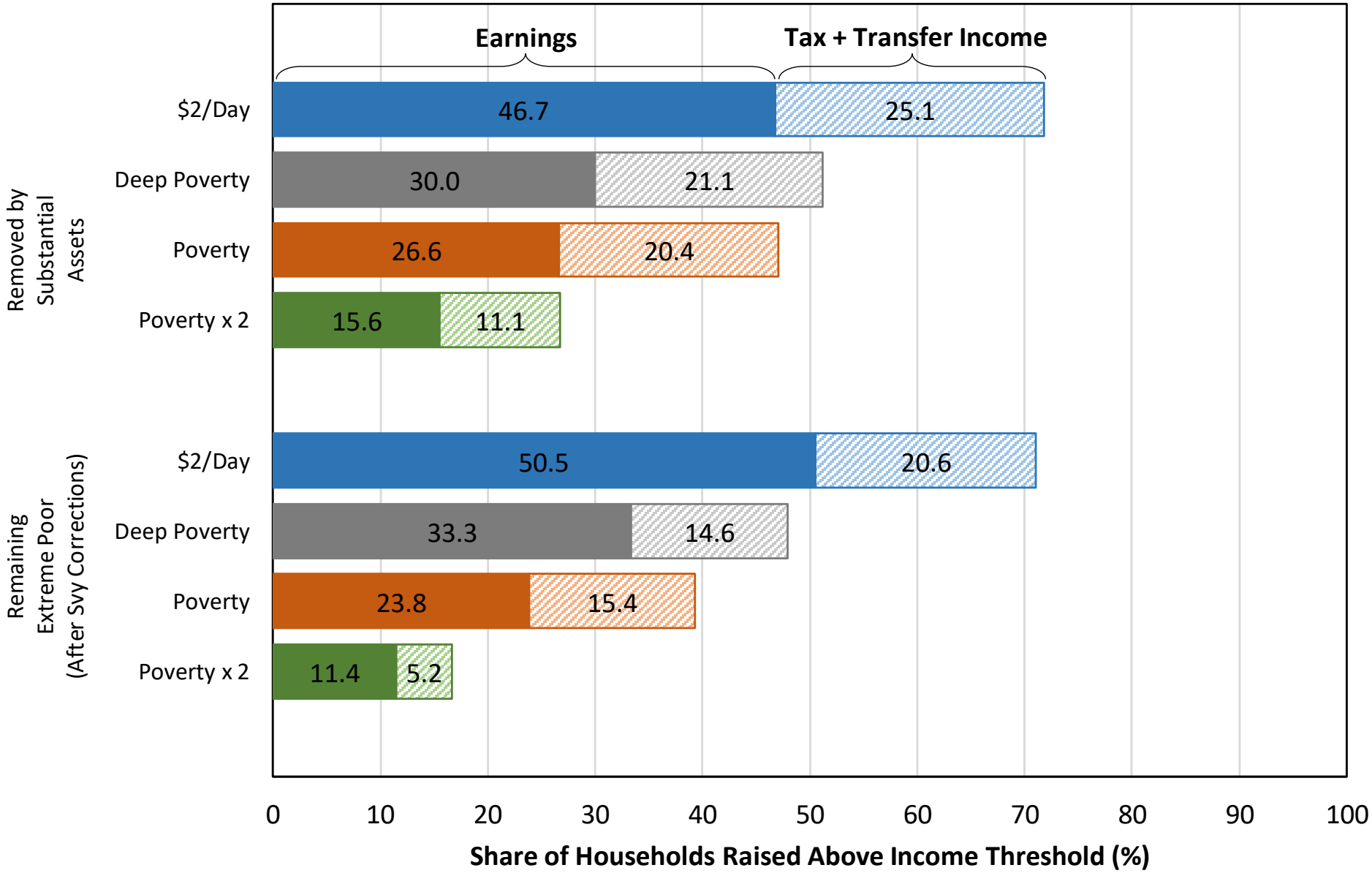


UN Report on Extreme Poverty

English > News and Events > **DisplayNews**

"Contempt for the poor in US drives cruel policies," says UN expert

GENEVA (4 June 2018) – The United States' principal strategy for dealing with extreme poverty is to criminalise and stigmatise those in need of assistance, a report by a UN independent expert has found.

"For one of the world's wealthiest countries to have 40 million people living in poverty and over five million living in 'Third World' conditions is cruel and inhuman," the UN Special Rapporteur on extreme poverty and human rights, Philip Alston, said in a new report.

The report, to be presented to the UN Human Rights Council on 21 June, delivers Alston's findings from a fact-finding visit to California, Alabama, Georgia, Puerto Rico, West Virginia and Washington, D.C. from 1 to 15 December 2017.

Definitions: Cash Extreme Poor

- We start by considering a household to be in extreme poverty if its **total money income** is ≤ $2/person/day
  - This is Shaefer and Edin (2013) headline definition
  - They consider others as well, such as including in-kind transfers
  - Our base measure is the average over a 4-month wave

Incorporate Additional Information (Survey)

- Add in-kind transfers
  - SNAP
  - WIC
  - Public and subsidized housing
- Calculate lower-bound earnings based on reported hours worked
  - Consider wage/salary and self-employment hours separately
  - Calculate hours worked each month for each member of the household
  - Multiply monthly hours worked by the federal minimum wage
- Account for substantial assets
  - Real estate equity > $25,000 or
  - Liquid assets > $5,000 or
  - Total assets > $50,000

Validation using Household Characteristics

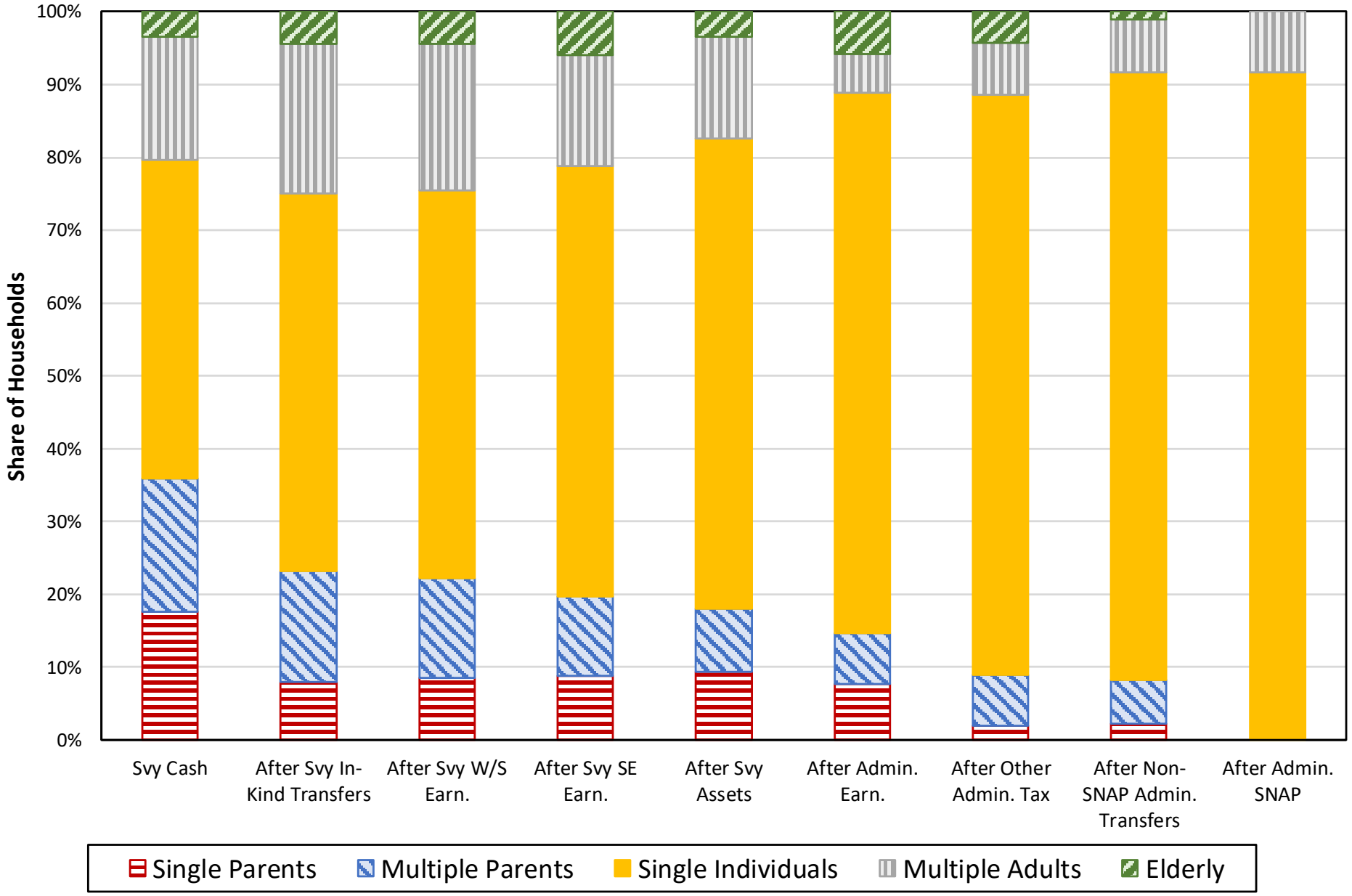
- Validate our decisions to consider various groups to be not in extreme poverty by examining:
  - Material hardships
  - Housing characteristics (e.g., appliances owned, home quality)
  - Income levels from administrative data

Definitions: Household types

- Disjoint household types
  - Elderly: headed by someone 65 or older (can be with or without children)
  - Single parent (Non-elderly): contains one person 18 or older and at least one child (defined as any person under age 18)
  - Multiple parent (Non-elderly): contains multiple people 18 or older and at least one child
  - Single individual (Non-elderly): contains one person
  - Multiple childless adults (Non-elderly): contains multiple adults and zero children

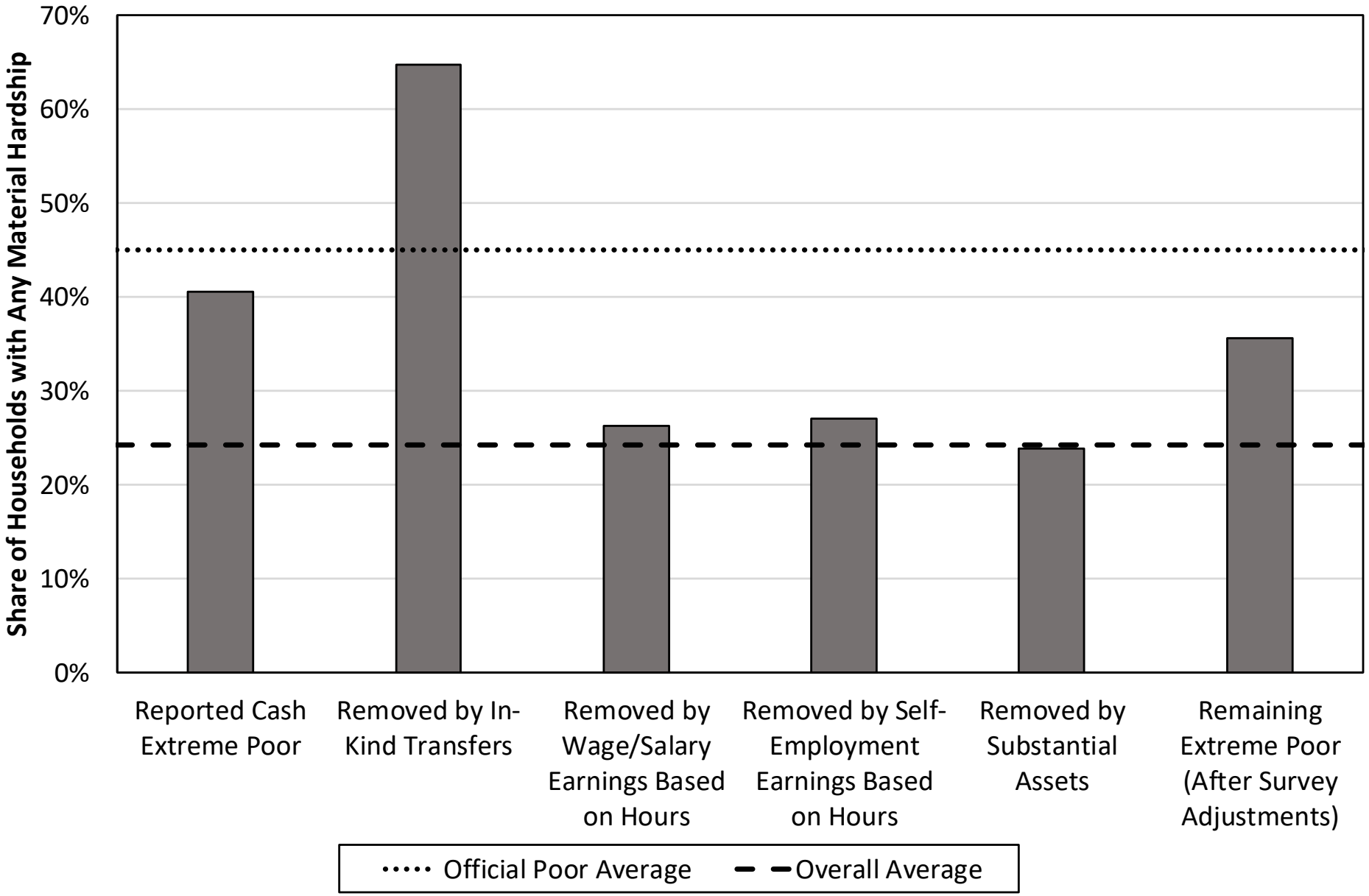
Household Type Distribution of Extreme Poor Subgroups After Adjustments

Share of Households



Share of Households with Any Material Hardship of Extreme Poor Subgroups

2011 SIPP (Wave 9 of 2008 Panel), Survey Data Only



Income Receipt Rates (%) for Remaining Extreme Poor Households After Survey-Only Adjustments

Source	(1) All Households	(2) Elderly	(3) Single Parents	(4) Multiple Parents	(5) Single Individuals	(6) Multiple Adults
Earnings	55.93	15.41	74.76	70.15	47.92	81.24
Asset Income	9.77	15.41	0.00	6.67	9.17	19.61
Retirement Distributions	11.75	43.08	6.59	3.90	12.75	7.88
OASDI	6.14	58.50	0.00	7.18	5.15	1.58
SSI	2.83	35.47	0.00	14.46	0.00	2.69
Housing	3.55	20.60	1.11	11.00	2.79	0.00
EITC	30.19	0.00	67.95	73.34	19.19	36.18
SNAP	19.06		61.40	73.40	3.80	21.79
Any Transfer	42.68	89.51	69.26	78.73	30.97	51.40

Robustness Checks (%)

Specification	(1) $2/Day: Half Minimum Wage	(2) $2/Day: No Housing Assistance	(3) $4/Day
Survey-Reported Cash	2.97	2.97	3.68
Survey Only Adjustments			
Add In-Kind Transfers	2.04	2.08	2.48
Correct Wage/Salary Earnings	1.83	1.86	2.17
Correct Self-Employment Earnings	1.31	1.32	1.54
Account for Assets	0.84	0.86	1.00
Administrative Data Adjustments			
Correct Earnings	0.42	0.43	0.50
Correct Other Tax Income	0.31	0.32	0.39
Correct OASI, SSI, Housing Assistance	0.27		0.34
Correct SNAP	0.24		0.34

Appendix

Selected Demographics for Extreme Poor Subgroups and Comparison Households

	(1) Reported Cash Extreme Poor	(2) Removed by In-Kind Transfers	(3) Removed by Wage/Salary Earnings Based on Hours	(4) Removed by Self-Employment Earnings Based on Hours	(5) Removed by Substantial Assets	(6) Remaining Extreme Poor (After Survey Adjustments)	(7) Official Poor	(8) All Households
Household Characteristics								
Someone in household is… (%)								
…unemployed	26.09	38.32	5.77	5.29	24.42	31.75	18.23	8.59
…a displaced worker	1.22	1.93	5.34	0.00	0.77	0.45	1.73	1.41
…a child with a severe disability	1.69	3.71	0.00	0.00	2.12	0.65	3.17	1.87
…severely disabled	19.50	27.26	3.77	11.70	23.14	17.62	33.68	25.29
…severely disabled (mental/emotional)	6.84	10.97	2.46	6.86	4.99	4.28	9.93	5.97
…a care provider for an ill or disabled person	4.48	3.49	4.52	7.74	6.38	2.53	4.86	5.84
Education of Household Head								
Full time student (%)	12.00	13.68	4.67	1.14	13.18	18.09	7.19	2.63
Full or part time student (%)	13.48	16.26	8.46	1.63	13.18	19.20	10.07	5.00
Receives educ. assistance if a student (%)	52.74	57.70	26.71	23.72	54.79	51.90	57.59	50.42
Years of education	12.90	11.98	12.99	13.70	13.89	12.85	12.26	13.59
Health Insurance of Household Head (%)								
Medicaid	19.07	49.93	1.87	4.41	3.21	7.82	32.01	9.40
Private Insurance	28.62	4.12	57.49	49.87	53.60	21.47	25.70	69.73
Medicaid or Medicare or Private Insurance	48.08	53.46	60.24	55.40	58.04	29.69	62.98	84.76
Assets (%)								
Own a home	33.95	14.24	32.37	69.21	72.79	9.36	31.25	61.73
Total real estate equity > $25,000	26.31	9.95	27.43	48.41	74.96	0.00	24.38	50.08
Own a car, van, or truck	64.69	47.40	69.28	89.71	78.41	58.40	63.57	84.37
Liquid assets > $5,000	11.68	1.15	6.15	20.65	43.33	0.00	8.50	33.05
Total assets > $50,000	31.07	9.31	31.92	67.57	81.79	0.00	25.37	55.29
Total assets > $100,000	21.92	4.27	24.07	51.99	63.46	0.00	18.01	43.88
Total assets > $250,000	12.02	1.29	12.19	33.65	31.39	0.00	8.78	25.99
Total assets > $500,000	6.09	0.33	3.27	20.47	13.91	0.00	3.75	12.86
Weighted number of households	3,565,000	1,099,000	255,000	636,000	540,000	1,035,000	17,710,000	118,700,000
Share of households (%)	3.00	0.93	0.21	0.54	0.45	0.87	14.92	100
Unweighted number of households	900	300	70	150	150	250	4,800	32,500
Weighted number of households (Wave 6)	2,972,000	931,000	206,000	550,000	489,000	795,000	15,760,000	109,800,000
Share of households (Wave 6) (%)	2.71	0.85	0.19	0.50	0.45	0.72	14.35	100
Unweighted number of households (Wave 6)	750	250	60	150	150	200	4,300	30,000

Household Structure (%)

Number of Families in Household	Household Structure	(1)	(2)	(3)	(4)
		All		Reported Cash Extreme Poor	
		Share of Households	Share of Individuals	Share of Households	Share of Individuals
1	Family, no related subfamilies	60.27	72.14	47.52	67.63
	Family, with related subfamilies	2.67	5.99	1.15	3.15
	Individual	29.42	11.42	45.30	20.17
	Total	*92.36*	*89.55*	*93.97*	*90.96*
2	Family and unrelated individual	3.21	4.94	2.70	4.36
	Family and unrelated subfamily	0.18	0.35	0.10	0.37
	Individual and roommate	0.98	1.03	1.09	1.31
	Individual and cohabiting partner	2.20	2.27	1.36	1.49
	Individual and other[1]	0.33	0.34	0.27	0.32
	Total	*6.91*	*8.93*	*5.52*	*7.84*
3+	Individuals only	0.34	0.65	0.47	1.07
	One family and unrelated individuals	0.34	0.76	0.05	0.13
	Multiple families[2]	0.05	0.11	0.00	0.00
	Total	*0.73*	*1.52*	*0.51*	*1.20*
Total Count		118,700,000	305,700,000	3,565,000	8,005,000

1. "Other" could be a foster child or any non-relative of the reference person not included in the other categories.
2. Includes households that have at least two non-individual-only families, and potentially living with independent individuals, such that the total number of families is at least 3.

Percentage of Households in Extreme Poverty (Independent Survey-Only Adjustments)

Specification	(1) All Households	(2) Elderly	(3) Single Parents	(4) Multiple Parents	(5) Single Childless	(6) Multiple Childless
Survey-Reported Cash	3.00	0.47	9.23	2.05	6.90	1.91
SNAP	2.13	0.43	3.23	1.26	5.65	1.63
WIC	2.95	0.47	8.82	1.95	6.88	1.91
Housing subsidies	2.63	0.43	5.87	1.77	6.60	1.74
Correct Wage/Salary Earnings	2.72	0.42	8.63	1.69	6.38	1.73
Correct Self-Employment Earnings	2.10	0.39	7.46	1.19	5.15	1.08
Account for Assets*	1.99	0.22	7.59	1.22	4.79	1.01
Population	118,700,000	26,060,000	6,921,000	31,640,000	22,550,000	31,480,000
Sample Size	32,500	8,200	1,600	8,500	5,500	8,700

*Owns real estate equity > $25,000, liquid assets > $5,000, or total assets > $50,000.

Percentage of Households in Extreme Poverty, Reference Month 4 (Survey-Only Adjustments)

Specification	(1) All Households	(2) Elderly	(3) Single Parents	(4) Multiple Parents	(5) Single Childless	(6) Multiple Childless
Survey-Reported Cash	3.82	0.53	11.19	2.75	8.91	2.35
Add In-Kind Transfers	2.72	0.49	3.70	1.70	7.44	1.99
Correct Wage/Salary Earnings	2.29	0.46	3.30	1.14	6.60	1.64
Correct Self-Employment Earnings	1.70	0.39	2.50	0.67	5.40	0.97
Account for Assets*	1.09	0.14	1.79	0.33	3.82	0.54
Population	118,700,000	26,060,000	6,921,000	31,640,000	22,550,000	31,480,000
Sample Size	32,500	8,200	1,600	8,500	5,500	8,700

*Owns real estate equity > $25,000, liquid assets > $5,000, or total assets > $50,000.

Characteristics of Full Sample and SNAP States

	(1) Full Sample	(2) SNAP States	(3) Difference
Transfer Receipt			
OASDI Receipt Rate (%)	31.25	31.02	0.23
Average OASDI $ Received	444	459	-15**
SSI Receipt Rate (%)	5.71	5.24	0.47**
Average SSI $ Received	41	39	2
SNAP Receipt Rate (%)	12.57	13.70	-1.13***
Average SNAP $ Received	39	43	-4**
PA Receipt Rate (%)	1.67	1.80	-0.13
Average PA $ Received	6	6	0
Housing Assistance Receipt Rate (%)	5.07	5.96	-0.89***
Income Sources (%)			
Average Earnings	4,023	4,323	-300***
Average Asset Income	103	101	2
Average Retirement & Pension Distributions	2	2	0
Household Head Demographics (%)			
Age < 18	0.02	0.02	0.00
Age 18-39	28.31	27.28	1.03***
Age 40-64	49.86	51.26	-1.40***
Age 65 and Over	21.80	21.43	0.37
Education < High School	10.28	9.52	0.76**
Education High School	24.34	24.80	-0.46
Education Some College	34.95	34.01	0.94**
Education College	19.24	19.69	-0.45
Education Graduate Degree	11.19	11.98	-0.79**
Black	12.72	14.36	-1.64***
Hispanic	11.85	9.80	2.05***
Poverty Status			
Extreme Poverty Rate (%)	3.00	3.04	-0.04
Deep Poverty Rate (%)	6.39	6.28	0.11
Poverty Rate (%)	14.92	14.84	0.08
Near Poverty Rate (%)	35.84	33.69	2.15***
Poverty Gap ($ per poor household)	718	719	1

Material Well-Being for Extreme Poor Subgroups and Comparison Households

	(1) Reported Cash Extreme Poor	(2) Removed by In-Kind Transfers	(3) Removed by Wage/Salary Earnings Based on Hours	(4) Removed by Self-Employment Earnings Based on Hours	(5) Removed by Substantial Assets	(6) Remaining Extreme Poor (After Survey Adjustments)	(7) Official Poor	(8) All Households
Material Hardship								
Over the past 12 months, there was a time someone in the household… (%)								
…did not meet all essential expenses	31.77	55.25	18.88	15.30	15.50	28.60	32.35	16.07
…did not pay full amount of rent or mortgage	17.68	28.06	8.32	9.28	7.48	19.45	16.91	8.06
…was evicted for not paying rent or mortgage	2.03	2.21	0.63	0.00	1.28	3.82	1.33	0.51
…did not pay full amount of energy bills	21.11	37.05	8.69	9.73	7.70	21.21	23.10	10.54
…had energy service disrupted	4.62	7.42	0.63	2.98	2.85	4.57	4.49	1.74
…had telephone service disconnected	9.61	14.69	2.19	5.38	7.06	9.96	10.38	3.81
…needed to see a doctor but did not go	13.06	17.58	7.27	11.55	9.85	12.28	14.40	7.93
…needed to see a dentist but did not go	14.36	19.38	6.52	11.33	8.87	15.68	18.01	9.89
…had not enough food (past 4 months)	7.59	16.34	0.00	1.70	3.98	5.68	7.77	2.88
Number of hardships	1.22	1.98	0.53	0.67	0.65	1.21	1.29	0.61
Any hardships (%)	40.57	64.70	26.21	26.98	23.80	35.58	45.01	24.25
Five or more hardships (%)	7.45	12.26	2.53	3.98	3.98	7.51	7.59	2.92
Problems with Home Quality (%)								
Problem with pests	11.57	13.23	8.95	8.27	12.11	12.21	14.92	8.74
Leaking roof	7.79	7.39	5.65	5.86	4.97	11.38	7.49	4.71
Broken windows	3.71	6.39	2.89	1.23	3.09	2.91	5.22	3.05
Exposed electrical wires	1.60	2.32	1.23	0.83	0.00	2.23	1.19	0.62
Plumbing problems	4.05	3.83	4.86	3.66	3.84	4.45	3.87	2.15
Cracks or holes in the walls or ceiling	5.39	7.49	3.53	2.77	5.61	5.12	5.35	2.91
Holes in the floor	1.52	2.21	1.23	0.00	0.93	2.09	1.65	0.70
Number of problems with home	0.36	0.43	0.28	0.23	0.31	0.40	0.40	0.23
Have at least one problem (%)	20.93	21.71	11.03	16.82	17.63	26.76	23.07	15.15
Home does not have… (%)								
Microwave	9.85	9.19	4.20	4.50	2.63	19.00	6.84	3.21
Dishwasher	47.99	61.55	37.59	29.67	31.30	56.11	55.03	30.75
Air conditioning (room or central)	16.36	14.49	6.74	11.40	11.44	26.33	16.59	11.32
Color television	8.02	3.62	5.53	8.39	4.23	15.05	3.90	1.71
Computer	35.17	50.25	28.32	13.67	26.40	38.61	41.81	22.04
Washer in unit	32.65	43.81	23.15	12.32	18.08	43.22	31.26	14.82
Dryer in unit	35.25	46.75	24.44	15.74	18.76	46.29	34.63	16.60
Cell phone	16.52	21.38	6.40	6.05	14.63	21.25	19.10	11.03
Number of appliances owned	5.98	5.49	6.64	6.98	6.73	5.34	5.91	6.89
Own at least one appliance (%)	96.61	99.57	100.00	100.00	98.93	89.35	98.96	99.78
Weighted number of households	3,565,000	1,099,000	255,000	636,000	540,000	1,035,000	17,710,000	118,700,000
Share of households (%)	3.00	0.93	0.21	0.54	0.45	0.87	14.92	100
Unweighted number of households	900	300	70	150	150	250	4,800	32,500

Other Demographics for Extreme Poor Subgroups and Comparison Households

	(1) Reported Cash Extreme Poor	(2) Removed by In-Kind Transfers	(3) Removed by Wage/Salary Earnings Based on Hours	(4) Removed by Self-Employment Earnings Based on Hours	(5) Removed by Substantial Assets	(6) Remaining Extreme Poor (After Survey Adjustments)	(7) Official Poor	(8) All Households
Household Head Characteristics								
Age	41.69	36.65	40.01	47.76	48.25	40.30	45.83	51.06
Female (%)	56.24	74.64	42.39	45.26	47.69	51.32	62.38	52.58
Unmarried (%)	76.81	85.16	60.22	58.25	70.68	86.63	73.50	51.42
Non-white (%)	29.49	47.83	12.44	17.58	20.47	26.24	30.06	19.01
Hispanic (%)	14.07	18.97	18.28	5.36	6.01	17.39	19.75	11.85
Does not speak English at home (%)	20.14	18.14	22.13	18.61	14.98	25.38	23.27	15.22
Does not speak English well (%)	5.98	6.34	10.91	4.50	0.00	8.42	10.21	4.09
Not a U.S. citizen (%)	9.42	5.85	14.81	11.38	4.73	13.14	11.17	5.96
Does not live in a metro area (%)	19.23	23.32	29.92	22.79	14.22	12.66	23.64	20.81
Veteran (%)	7.59	5.04	3.34	11.83	11.37	6.79	6.90	17.26
Education of Household Head								
Less than high school (%)	14.86	25.65	19.01	5.75	4.89	13.18	22.49	10.29
High school diploma (%)	29.10	36.34	25.09	25.03	22.63	28.26	29.77	24.40
Some college (%)	37.10	34.95	26.24	37.35	37.47	41.71	34.65	34.87
College degree (%)	14.18	2.07	18.71	24.33	27.84	12.56	9.43	19.25
Graduate degree (%)	4.76	1.00	10.96	7.54	7.17	4.28	3.66	11.19
Years of education	12.90	11.98	12.99	13.70	13.89	12.85	12.26	13.59
Weighted number of households	3,565,000	1,099,000	255,000	636,000	540,000	1,035,000	17,710,000	118,700,000
Share of households (%)	3.00	0.93	0.21	0.54	0.45	0.87	14.92	100
Unweighted number of households	900	300	70	150	150	250	4,800	32,500

Top 10 Occupations of Workers in Households Removed from Extreme Poverty by Wage and Salary Hours (%)

Occupation	(1) Removed by Wage/Salary Hours	(2) Reported Cash Extreme Poor	(3) Official Poor	(4) All
Customer service representatives	4.35	2.36	1.66	1.50
Elementary and middle school teachers	4.25	2.31	1.17	2.52
Driver/sales workers and truck drivers	3.95	3.38	2.62	2.10
Computer software engineers	3.26	1.77	0.20	0.66
Other installation, maintenance, and repair workers	3.14	1.71	0.20	0.15
Retail salespersons	3.12	2.11	3.97	2.93
Office and administrative support workers, all other	2.74	2.56	0.31	0.41
Cashiers	2.62	7.42	5.70	2.75
Personal and home care aides	2.49	2.39	2.48	0.97
Computer scientists and systems analysts	2.37	1.29	0.16	0.55
Share Represented of All Occupations	**32.29**	**27.31**	**18.47**	**14.55**

Top 10 Occupations of Workers in Households Removed from Extreme Poverty by Self-Employment Hours (%)

Occupation	(1) Removed by Wage/Salary + Self-Employment Hours	(2) Reported Cash Extreme Poor	(3) Official Poor	(4) All
First-line supervisors/managers of retail sales workers	5.51	4.60	4.05	4.43
Food service managers	4.37	3.65	1.77	1.38
Managers, all other	4.20	3.50	4.18	5.74
Real estate brokers and sales agents	3.32	2.77	2.27	1.91
Construction laborers	3.30	5.91	5.00	2.49
Construction managers	3.26	3.14	3.03	2.34
Sales representatives, wholesale and manufacturing	3.09	2.58	1.36	0.81
Farmers and ranchers	2.75	2.30	2.82	2.91
Chief executives	2.72	2.27	1.01	2.90
Carpenters	2.66	3.17	2.96	2.77
Share Represented of All Occupations	**35.17**	**33.88**	**28.45**	**27.67**

Top 10 Industries of Workers in Households Removed from Extreme Poverty by Wage and Salary Hours (%)

Industry	(1) Removed by Wage/Salary Hours	(2) Reported Cash Extreme Poor	(3) Official Poor	(4) All
Construction	13.50	10.56	6.77	5.05
Restaurants and other food services	11.01	13.03	14.60	6.65
Elementary and secondary schools	5.24	3.48	3.68	6.95
Home health care services	4.34	2.36	2.56	0.88
Services to buildings and dwellings (except cleaning during construction and immediately after construction)	3.14	5.60	2.21	0.87
Justice, public order, and safety activities	2.97	2.67	0.73	2.03
Miscellaneous general merchandise stores	2.83	1.54	0.82	0.43
Religious organizations	2.37	1.29	0.51	0.88
Advertising and related services	2.35	1.28	0.26	0.27
Hospitals	2.32	1.38	1.67	4.47
Share Represented of All Industries	**50.07**	**43.19**	**33.82**	**28.47**

Top 10 Industries of Workers in Households Removed from Extreme Poverty by Self-Employment Hours (%)

Industry	(1) Removed by Wage/Salary + Self-Employment Hours	(2) Reported Cash Extreme Poor	(3) Official Poor	(4) All
Construction	20.70	22.98	22.18	15.17
Professional, scientific, management, administrative, and waste management services	18.10	17.33	18.87	24.24
Arts, entertainment, recreation, accommodation, and food services	10.80	9.50	7.24	7.15
Finance, insurance, real estate, and rental and leasing	8.99	7.51	5.57	6.75
Retail Trade	7.86	7.55	7.73	8.85
Other services (except public administration)	7.61	9.28	12.92	10.70
Agriculture, forestry, fishing, and hunting	6.09	5.26	5.96	5.11
Manufacturing	5.54	4.92	4.15	4.00
Educational, health care and social assistance	5.31	6.54	7.79	9.98
Transportation and warehousing, and utilities	4.47	4.52	3.26	3.76
Share Represented of All Industries	**95.47**	**95.39**	**95.68**	**95.72**

Rates of Low Earnings Reports (%) for Extreme Poor Subgroups with Under-Reported Earnings

Earnings	Removed by Wage/Salary Hours				Removed by Wage/Salary + Self-Employment Hours			
	Zero (1)	Single Digit (Non-Zero) (2)	Double Digit (3)	$100 or More (4)	Zero (5)	Single Digit (Non-Zero) (6)	Double Digit (7)	$100 or More (8)
All Households	72.09	5.84	12.84	9.23	87.81	1.67	4.55	5.97
Elderly	91.18	0.00	0.00	8.82	94.85	0.00	0.00	5.15
Single Individuals	78.29	0.00	21.71	0.00	93.10	0.00	6.90	0.00
Multiple Adults	60.05	16.72	20.02	3.21	89.30	3.65	6.35	0.70
Single Parents	37.68	0.00	0.00	62.32	74.20	0.00	0.00	25.80
Multiple Parents	77.39	7.75	0.00	14.85	80.20	2.78	0.00	17.03

Imputation Rates (%) for Major Income Sources of Extreme Poor Subgroups and Comparison Households

	(1) Reported Cash Extreme Poor	(2) Removed by In-Kind Transfers	(3) Removed by Wage/Salary Earnings Based on Hours	(4) Removed by Self-Employment Earnings Based on Hours	(5) Removed by Substantial Assets	(6) Remaining Extreme Poor (After Survey Adjustments)	(7) Official Poor	(8) All Households
SSI imputed	0.15	0.47	0.00	0.00	0.00	0.00	9.48	4.40
OASDI imputed	0.41	0.65	0.00	0.00	0.89	0.28	18.27	26.95
Unemployment Insurance imputed	1.44	2.33	2.36	0.83	0.83	0.96	3.68	3.28
SNAP imputed (receipt)	1.21	2.91	0.00	0.00	2.09	0.00	1.54	0.79
SNAP imputed (amount)	19.48	58.83	0.00	0.55	3.41	2.51	29.04	8.41
WIC imputed	0.47	1.28	0.00	0.00	0.52	0.00	0.72	0.29
Unearned income imputed	0.19	0.13	0.00	0.00	0.00	0.51	1.14	1.00
Public assistance imputed	0.96	3.12	0.00	0.00	0.00	0.00	3.61	1.14
Pensions imputed	0.49	0.61	0.00	0.00	1.98	0.00	3.87	18.11
Wage/salary income imputed[1]	1.39	0.83	12.67	0.61	0.77	0.00	8.17	14.29
Self-employment income imputed[2]	0.42	0.54	1.74	0.70	0.00	0.00	1.01	2.02
Major income source imputed[3]	22.67	60.33	15.03	2.70	8.40	4.25	54.50	51.96
Weighted number of households	3,565,000	1,099,000	255,000	636,000	540,000	1,035,000	17,710,000	118,700,000
Share of households (%)	3.00	0.93	0.21	0.54	0.45	0.87	14.92	100
Unweighted number of households	900	300	70	150	150	250	4,800	32,500

1. Either "earnings [from job 1] received in this month" or "earnings [from job 2] received in this month" is imputed (not income we calculate based on hours worked imputed).
2. Either "income [from business 1] received in this month" or "income from [business 2] received in this month" is imputed (not income we calculate based on hours worked imputed).
3. Major income sources include wage/salary income, self-employment income, unearned income, pensions, OASDI, SSI, public assistance, unemployment insurance, WIC, or SNAP. Defined as imputed if any of these income sources for anyone in the household is statistically imputed in Wave 9. Defined as imputed if either receipt indicator or amount of income is imputed.

Imputation Rates (%) for Hours Worked of Subgroups Removed from Extreme Poverty by Calculated Earnings

	(1) Share of Households Removed by Wage/Salary Earnings Based on Hours	(2) Share of Households Removed by Self-Employment Earnings Based on Hours
Overall hours imputed & "hours vary" used	9.09 (4.04)	0.00 (0.00)
Wage/salary hours imputed	6.53 (3.28)	0.00 (0.00)
Self-employment hours imputed	N/A	5.82 (2.07)
Hours imputed	15.62 (5.04)	5.82 (2.07)