Counting the Poor: The Liquidity-Adjusted Supplemental Expenditure Poverty Measure

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Background on Poverty Measurement

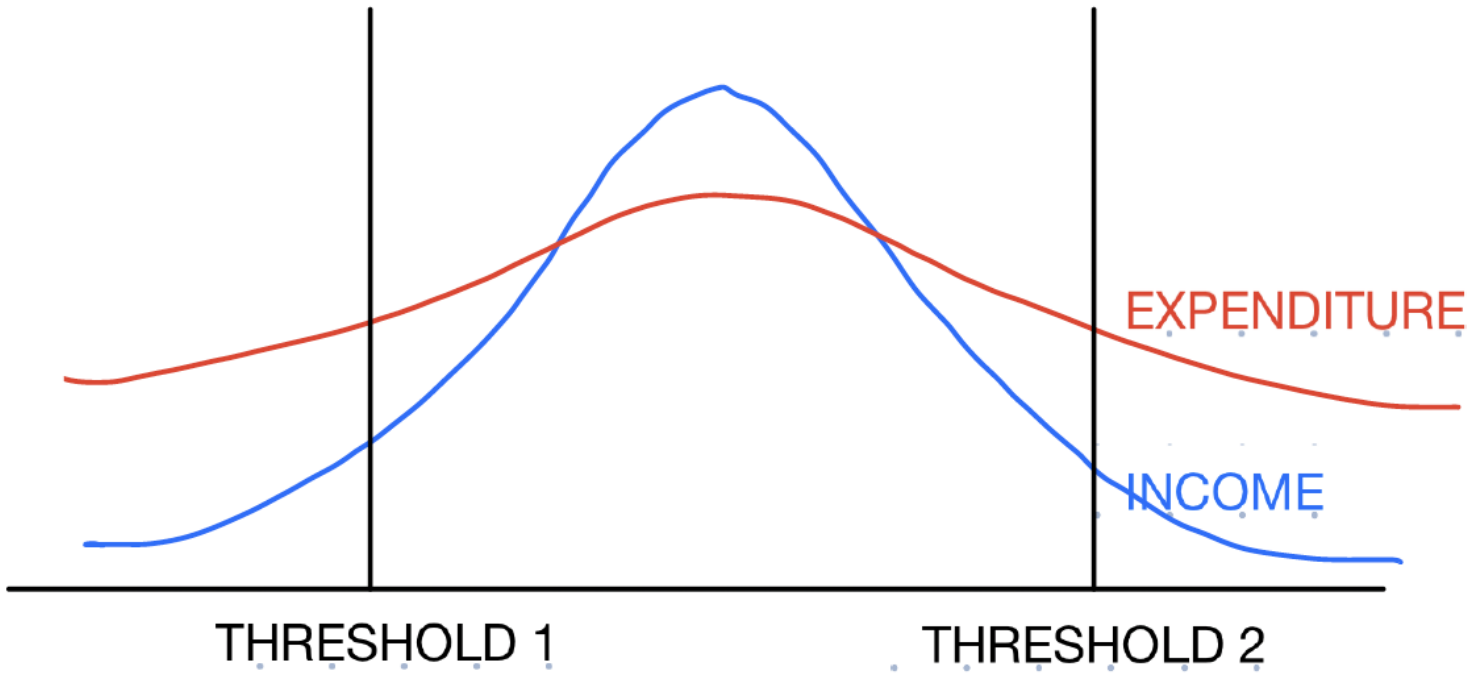
- An active area
- Census Bureau making improvements in its preferred measure, the Supplemental Poverty Measure (SPM)
- SPM compares a comprehensive measure of family income to the poverty line to determine if a family is poor
- National Academy of Sciences 2023 report on improving the SPM both on the resources (income) side and the threshold (poverty line) side
- Continued work on Consumption Poverty by Meyer-Sullivan and coauthors and BLS is constructing one

The argument in this paper

- (1) Income attempts to be a measure of potential resources but misses large amounts of such resources
- (2) Expenditure does not attempt to capture potential resources but is a clean and internally consistent measure of actual resources
- (3) Consumption is not a measure of resources in the first place, so it is a different concept entirely
- So propose to use expenditure in a period as a measure of resources, and compare that to the poverty threshold
- (4) And it makes an empirical difference

Details

- Expenditure vs Income: Income includes unspent resources (saving and investment) but excludes expenditure from (net) borrowing
- So Income understates resources available
- But net borrowing has to be paid back eventually, and that reduces resources available
- In which case income overstates resources available
- Which dominates depends on where the poverty threshold is set


EXPENDITURE
INCOME
THRESHOLD 1
THRESHOLD 2

- Expenditure vs Consumption: Consumption excludes expenditure on saving and investment (e.g., pension contributions), expenditure does not
- We will show that this makes a non-trivial difference in the poverty rate
- But consumption is not a measure of resources, just a measure of current well-being
- Different concept

- Another problem with consumption poverty: consumption is a matter of intertemporal choice, endogenous
- Two families, same income in two periods, one allocates more resources to period t and another less, so their poverty status is different
- Most analysts would say: they have the same resources and both could have had the same poverty status in both periods
- But this raises a difficult issue: lifetime resources, assets, debt, etc.
- Our expenditure has the same issue; we ignore that
- And so does income poverty
- None of the three is a measure of lifetime *potential* resources (including the ability to borrow against future income)

▸ Resources
▸ Distribution

Dispelling a Myth

- The myth: low income families are completely liquidity constrained: cannot borrow and have an MPC of 1 out of current income
- And: they hardly have any money in the bank ($400, etc.) so intertemporal considerations are irrelevant
- Perhaps true of the poorest of the poor, but 2022 SPM poverty threshold for family of 4 is about $30,000 and "near-poverty" threshold is about $45,000
- Near-poverty under 65: 90th percentile of credit card balances is $2.3k (45% of low income households have credit cards and 10% are net borrowers or repayers, with up to $2900 net borrowing (99th percentile))
- $75 billion payday loan industry
- Ethnographies: borrowing from friends and family
- And there is even a non-trivial upper tail of liquid assets: 75th percentile for less-than-65 near poor is $780 (greater than 65 much higher)
- So expenditure is often not equal to income

Simple Theory

- A family has lifetime resources; past is known, future is uncertain
- Chooses to allocate an amount of expenditure to period t by transferring resources from the past and the future to current period t
- Need two-stage budgeting (separability) assumption to guarantee that current consumption is only a function of current period total expenditure
- The allocated amount of expenditure to period t, \$X, is our measure of a household's resources
- To repeat: this is *not* a measure of potential resources (that's the next paper; welcome discussion)

Liquidity

- Second contribution of the paper: dealing with illiquidity of service flows off durables
- Almost half of households in bottom quintile of the expenditure distribution own a home (and 2/3 own a vehicle)
- Proper treatment is to calculate service flows off durables
- BEA, BLS, others do this (implicit, or indirect, rent)

- But the right way to treat service flows is not to throw them into resources
- They are completely illiquid (in the short run*) and cannot be used for the purchase of any good other than the good in question
- E.g., housing service flows cannot be used to buy food, clothing, etc.
- Family with $20k in cash is better able to purchase nondurables (food, clothing, etc.) than a family with $10k in cash and $10k in housing service flows
- *CE data show almost no home equity loans among the low-income, but data on refinancing and home selling is poor

- Of course this is a matter of choice; not arguing that they have lower utility
- Only saying that they are classic hand-to-mouth consumers with an illiquid (but very valuable) asset that they do not want to sell or draw down
- May not have the liquid resources to purchase the minimum bundle defined by the poverty threshold

- We propose treating service flows as reducing the "need" for the good in question
- But "needs" are measured on the threshold side, not the resources side
- The poverty threshold is the amount of food, clothing, housing, etc. needed to have a minimum standard of living and not be poor
- So if \$12,000 of annual housing consumption is needed to not be poor, and the home yields \$8,000 of housing consumption service flow, remaining need is \$4,000
- Any service flow in excess of \$12,000 is not usable to purchase any other good to escape poverty

- But on the resources side, need to exclude expenditure on housing for homeowners (mortgages (principal and interest), real estate taxes, etc.)
- That expenditure is contractually obligated and cannot be spent on 'anything', i.e., it is not liquid

- Treat in-kind transfers the same way (housing subsidies, food stamps, etc.)
- They can only be used for the consumption of the good in question
- They reduce need in the threshold

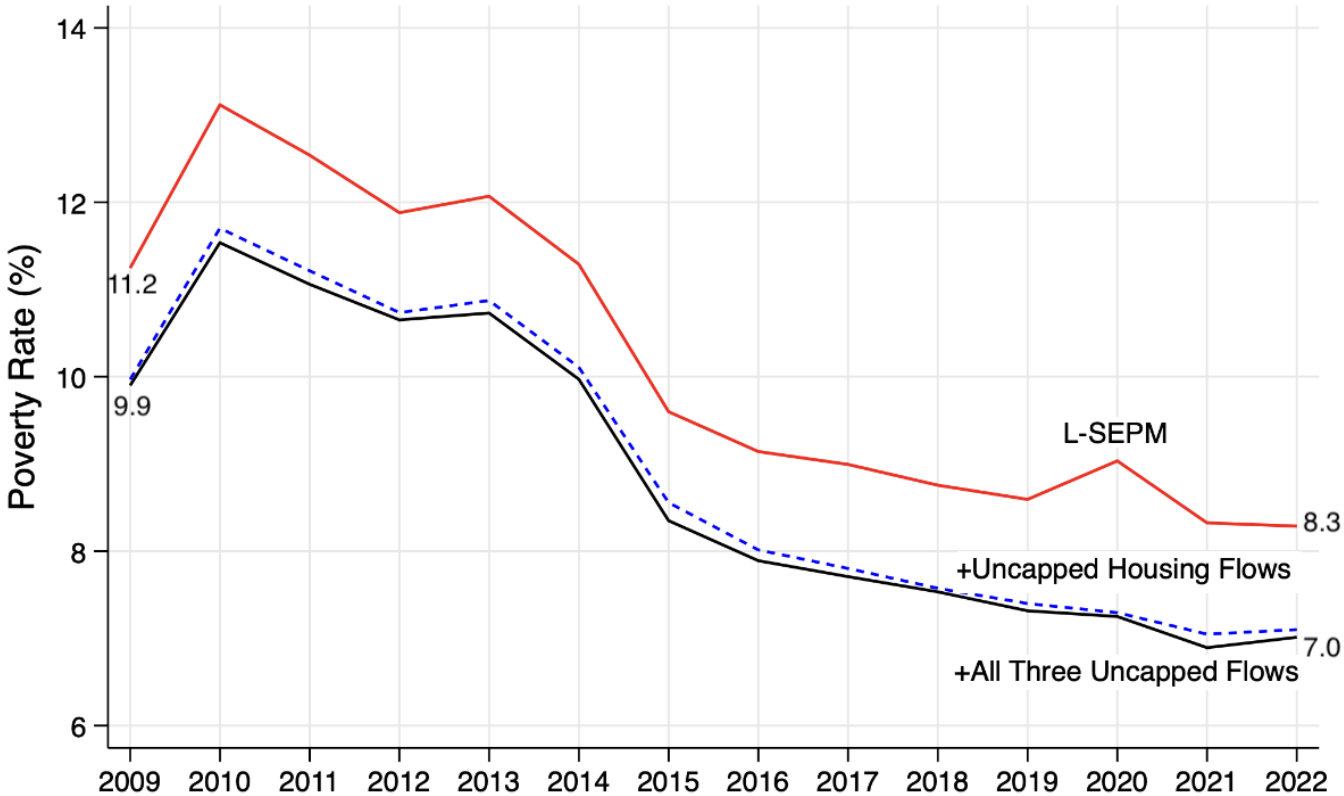
The Liquidity-Adjusted Supplemental Expenditure Poverty Measure (L-SEPM)

- Determine poverty for a household by comparing its liquid resources to its liquidity-adjusted threshold
- Liquid Resources: Total expenditure minus housing expenditures and excluding in-kind transfers
- Liquidity-Adjusted Threshold: Sum of each consumption need minus housing service flows and in-kind transfers (truncated at zero)

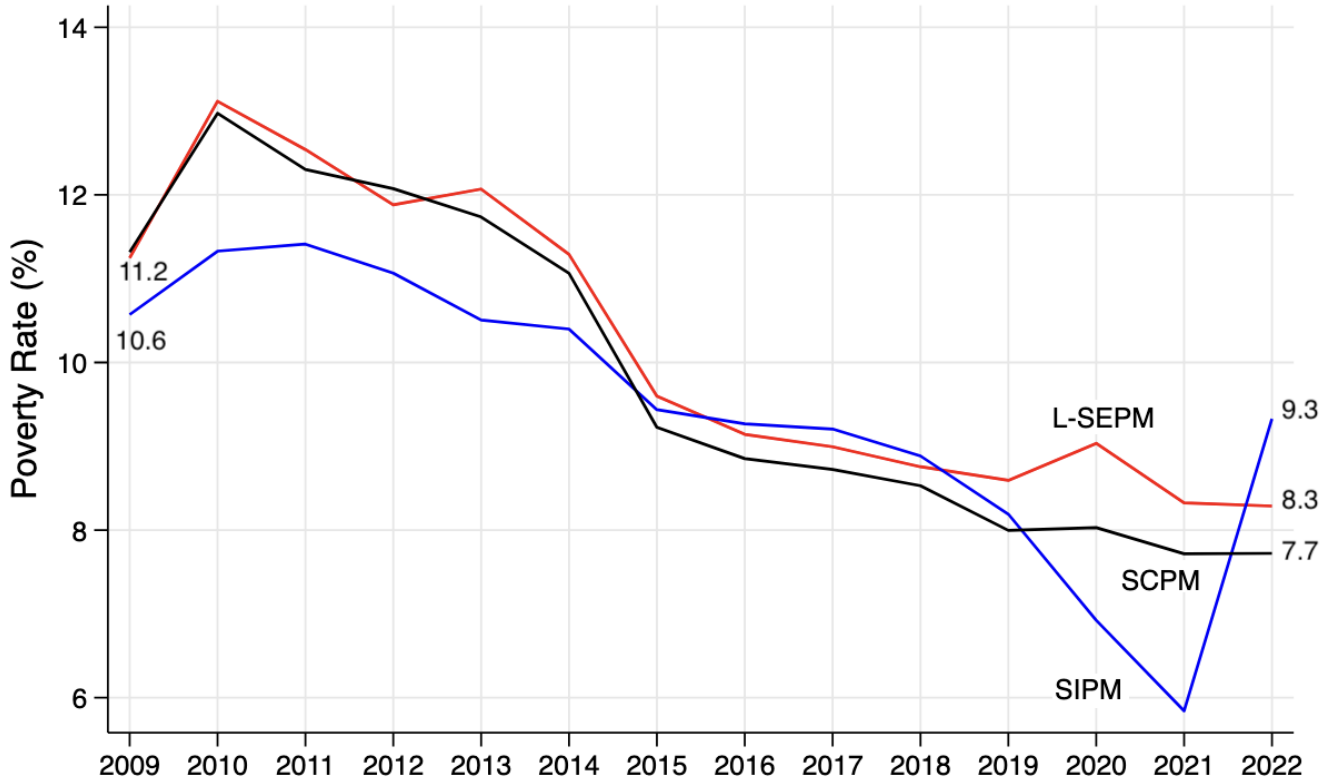
Some Results

- Consumer Expenditure (CE) Survey 2009-2022
- A food, clothing, housing, utilities consumption threshold is chosen to be close to the Census Bureau SPM (but look at higher and lower ones) (updated each year but constant real thresholds yield same results)
- Liquid Resources: liquid expenditure
- Estimate service flows off housing for homeowners (CE question)
- Compare to CPS income poverty and CE consumption poverty

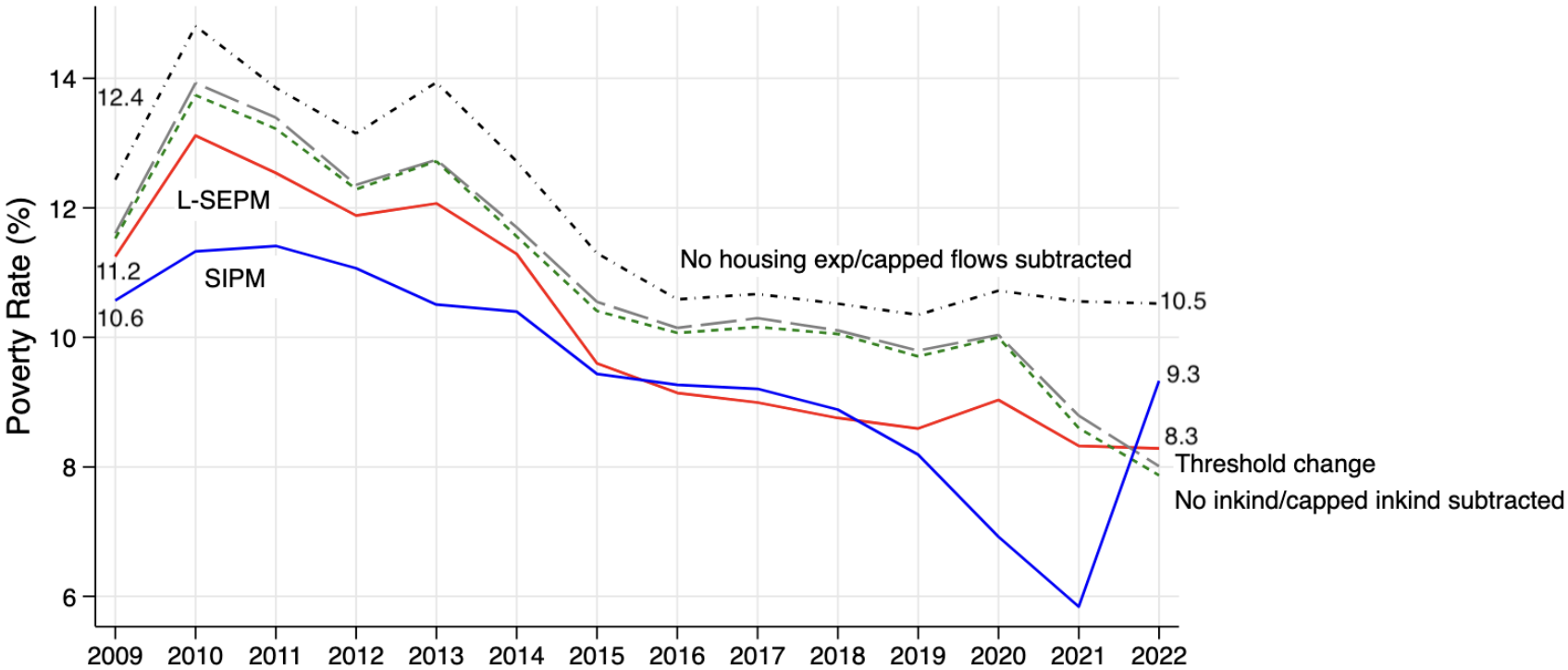
L-SEPM Poverty Rates, 2009–2022



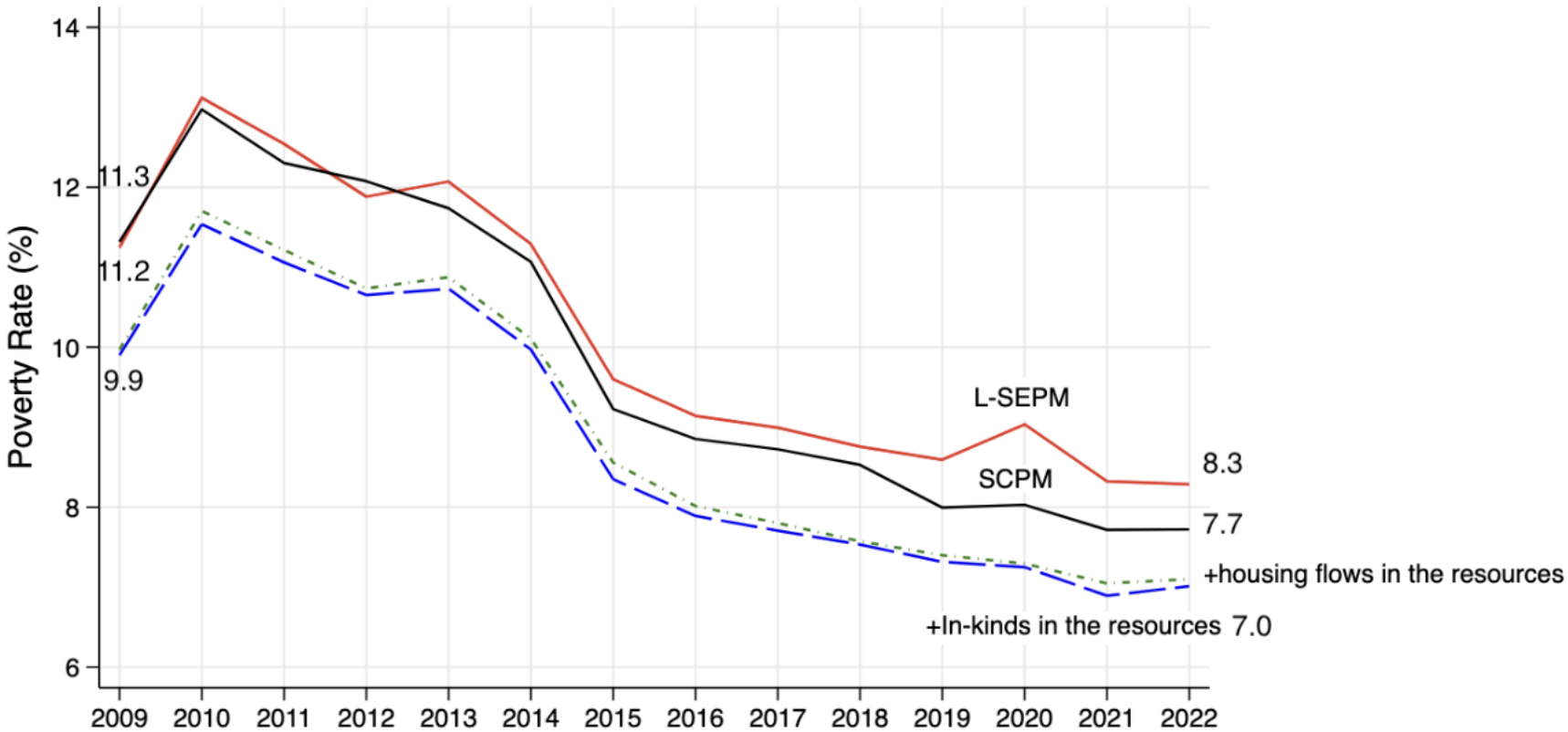
L-SEPM, SIPM, and SCPM



L-SEPM and SIPM



L-SEPM and SCPM



Other Analyses

- Vehicles ▸ Figure
- Government Transfers ▸ Figure

Resources and Consumption

	L-SEPM Liquid Expenditure	SCPM Consumption	SIPM Income
In-Kind Transfers	No	Yes	Yes
MOOP	Yes	Yes	Yes
Personal Insurance	Yes	No	-
Pensions (Payroll Deduction)	No	No	-
Retirement (Non-Payroll)	Yes	No	-
Education	Yes	No	-
Cash Contribution	Yes	No	-
Child Daycare	Yes	No	-
Shelter			-
Net Outlay	Yes	No	-
Principal Payment	No	No	-
Down Payment	Yes	No	-
Rental Equivalence	No	Yes	-
Owned Vehicle			
Net Outlay	Yes	No	-
Principal Payment	Yes	No	-
Down Payment	Yes	No	-
Service Flows	No	Yes	-

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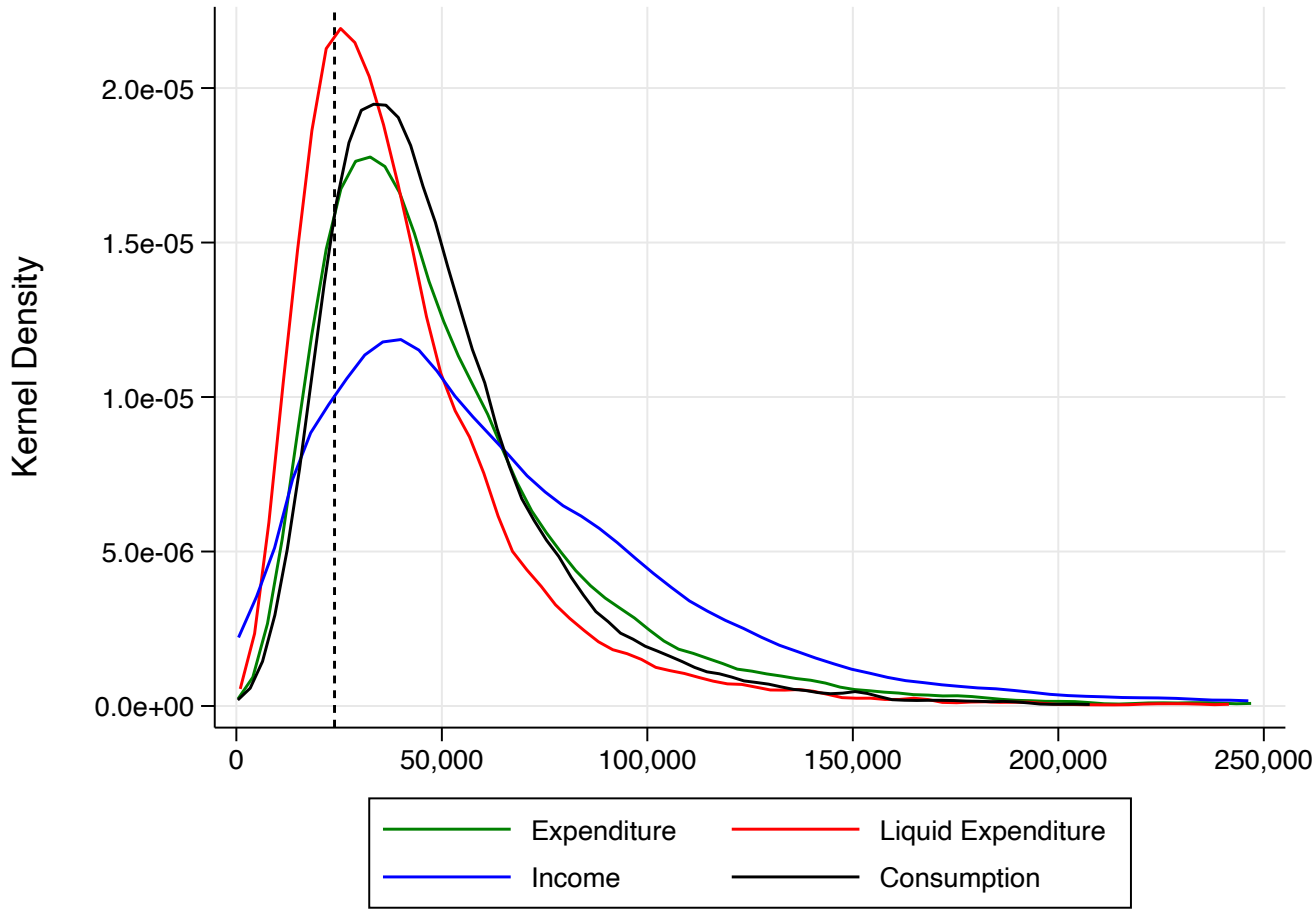
Distributions of Resources and Consumption



The black dashed line ($23,888) denotes the average SIPM threshold in 2010.

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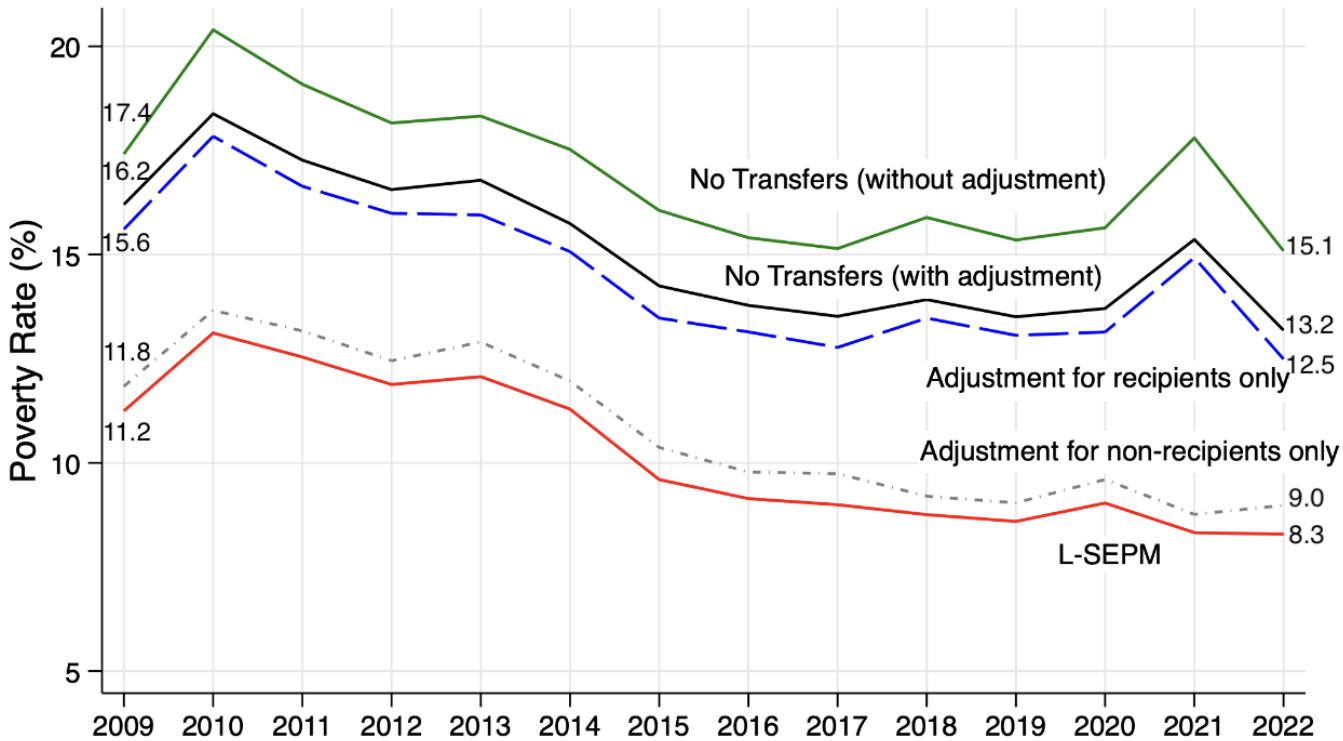
Effect of Transfers, 2009–2022



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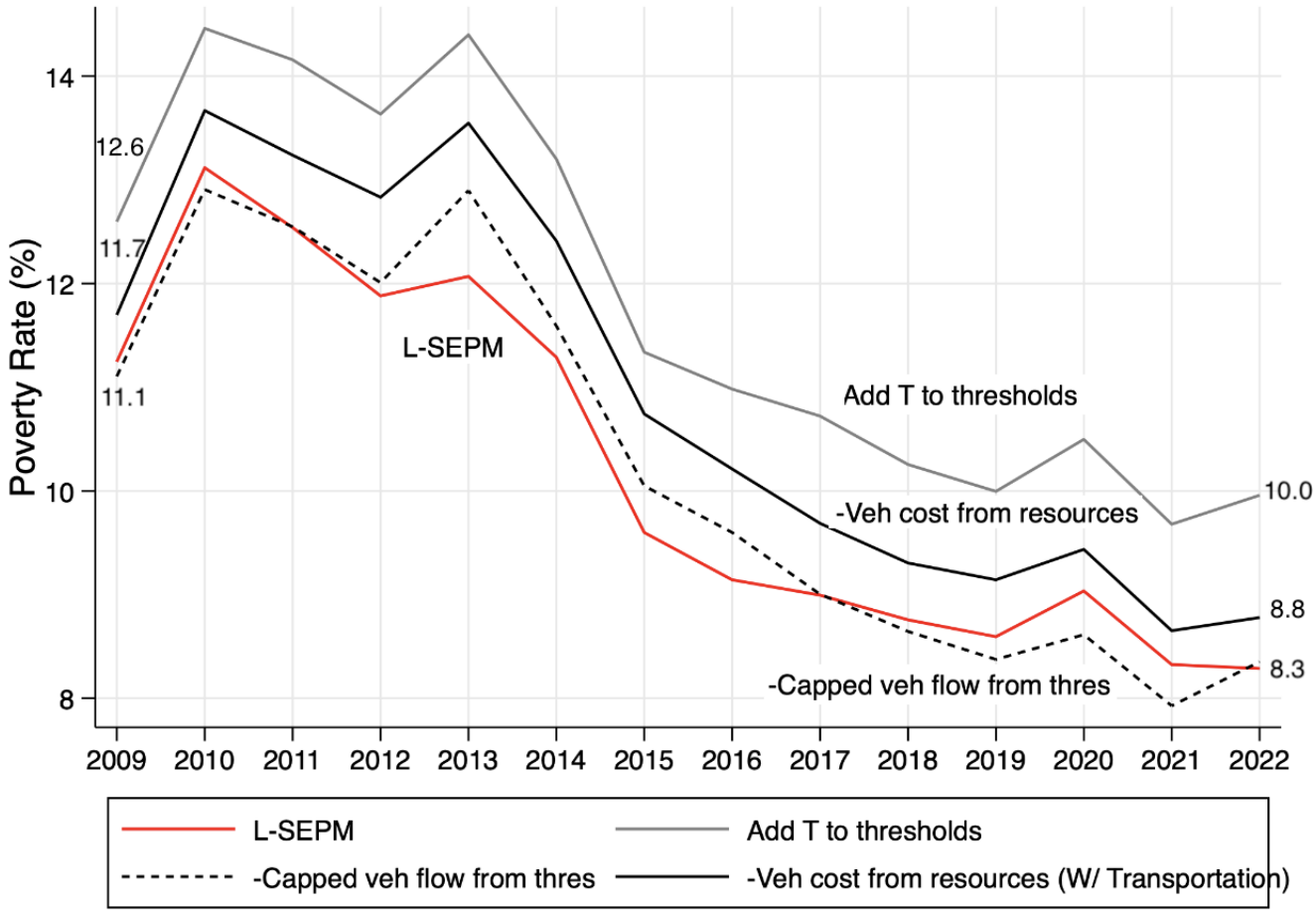
L-SEPM Poverty Rates Including Transportation, 2009–2022



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