Presence and Persistence of Poverty in Tax Data

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This paper evaluates trends in poverty using a new series of household level data constructed from IRS tax return data This series, from 1999 to 2016, is an extension of the Tax Household Sample from Larrimore, Mortenson, and Splinter (2018), which uses addresses on tax filings to aggregate tax returns to the household level in 2010. This approach, which incorporates income from members of the household that are not necessarily part of the same tax unit and includes non-filers, overcomes the traditional limitations of IRS data that have prevented researchers from using tax records to analyze the lower tail of the income distribution. In addition to analyzing trends in poverty, the panel nature of the data allow us to investigate the income dynamics of those in or near poverty, including the characteristics of individuals who experience transient and persistent poverty spells.

We first compare household-level poverty trends in the tax data to those based on survey records from the Current Population Survey. To do so, we construct a tax-based household poverty rate using the Official Poverty Measure (OPM) income definition incorporating most income from tax data and using a statistical matching approach to incorporate non-taxable cash income measures into the IRS data. Given the concerns about income reporting at the tails of the distribution in Census data raised by Bollinger et al. (Forthcoming), this will allow us to analyze whether there are notable differences when using administrative data as the baseline income data source.

We then consider poverty trends using a more comprehensive after-tax and after-transfer income definition that deducts income and payroll tax liabilities and includes refundable tax credits using the IRS data, as well as including imputed levels of in-kind transfers using statistical matching techniques. This will demonstrate how poverty trends may differ after incorporating these additional sources of income and highlight their importance in ameliorating poverty in pre-tax cash income. Recognizing that public assistance programs are increasingly administered through the tax code, including the Earned Income Tax Credit and Child Tax Credits, IRS data are uniquely suited to consider the effect of tax-based programs on poverty trends. Since poverty thresholds are somewhat arbitrary (Burkhauser et al. 2019), when incorporating broader income definitions we will primarily do so using an anchored approach that maintains the same poverty rate as the OPM in the base year and then observes how the inclusion of additional income sources changes the trend over time from that baseline rate.

Finally, in contrast to the Current Population Survey data which can only observe individuals for up to two years, the IRS data allow us to track the same individuals over a much longer period. For the purposes of analyzing poverty trends in the aggregate and tracking households over time, we draw a sample from the tax household population files in the form of a panel. This panel remains nationally representative in each year, and allows for entry and exit due to birth, death, emigration, or otherwise falling out of the IRS' vantage. This allows us to estimate the share of individuals in poverty at any point over 3-, 5-, 10-, and 15-year periods; the share in poverty for one year relative to the share experiencing extended periods in poverty; and the characteristics of individuals experiencing transitory and persistent poverty. This information will provide a more complete understanding of the factors associated with poverty, and will enable us to separately evaluate the ability of the social safety net system to ameliorate short-term and long-term poverty.

References

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