What Happens When People Increase Their Earnings? Effective Marginal Tax Rates for Low-Income Households

Brief #2 in the ASPE Marginal Tax Rate Series **March 2019**

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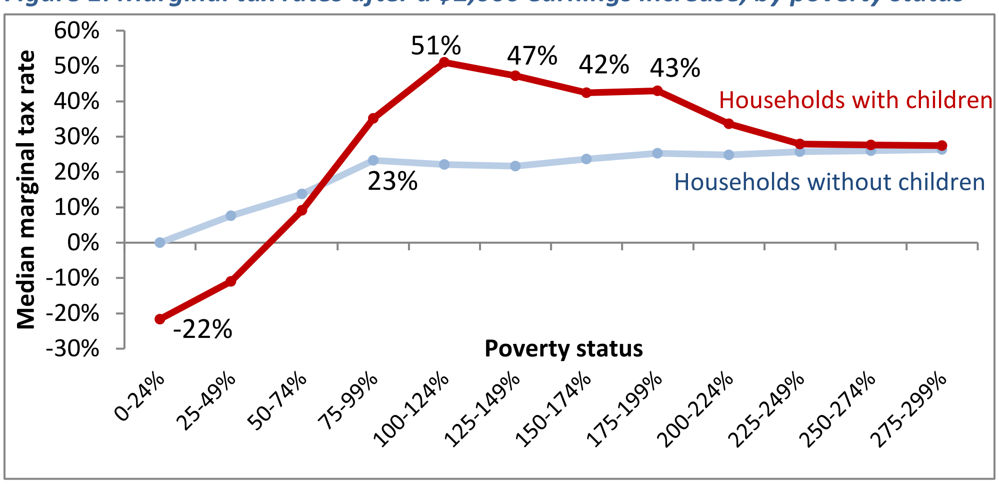
Highlights

- ✓ *This is one of the first analyses to use nationally representative data to estimate marginal tax rates faced by different kinds of households.*
- ✓ *Among households with children just above poverty, the median marginal tax rate is high (51 percent); rates remain high (never dipping below 42 percent) as incomes approach 200 percent of poverty.*
- ✓ *Households with children are more likely to face high marginal tax rates than households without children.*
- ✓ *Among households with children below 200 percent of poverty, the most common combination of benefits is* ***SNAP + EITC + Child Tax Credits (CTC) + Medicaid/Children's Health Insurance Program (CHIP)****, and these three million households experience a median marginal tax rate of 42 percent.*

Households with Children: Marginal Tax Rates Are Highest Just above the Poverty Line

Among households with children, when earnings increase by $2,000 (see Figure 1, dark red line), median marginal tax rates rise precipitously from *negative* 22 percent[1] (when family income is 24 percent of poverty or less) to 51 percent (when family income is just above poverty). Marginal tax rates then stay fairly high, with median families netting between $980 to $1,160 after the $2,000 earnings increase (reflecting marginal tax rates between 51 and 42 percent), until families exceed twice the poverty threshold.

Figure 1: Marginal tax rates after a $2,000 earnings increase, by poverty status



Source: ASPE tabulation of microdata from the TRIM3 model, Current Population Survey, ASEC 2015.

[1] Negative marginal tax rates mean that benefit dollars actually *increase* following an earnings increase.

What are marginal tax rates?

"Effective" marginal tax rates refer to how much of *new* earnings are effectively reduced by income tax, payroll tax, and especially, a reduction in government benefits. If a hypothetical family earns an additional $1,000 from extra work hours over the course of a year, the added earnings are taxed (-$200) and SNAP benefits are reduced (-$200). Altogether, the bite taken out of new earnings by taxes and reduced benefits yields a marginal tax rate of 40 percent. Extra earnings of $1,000 amounts to a resource increase of $600.

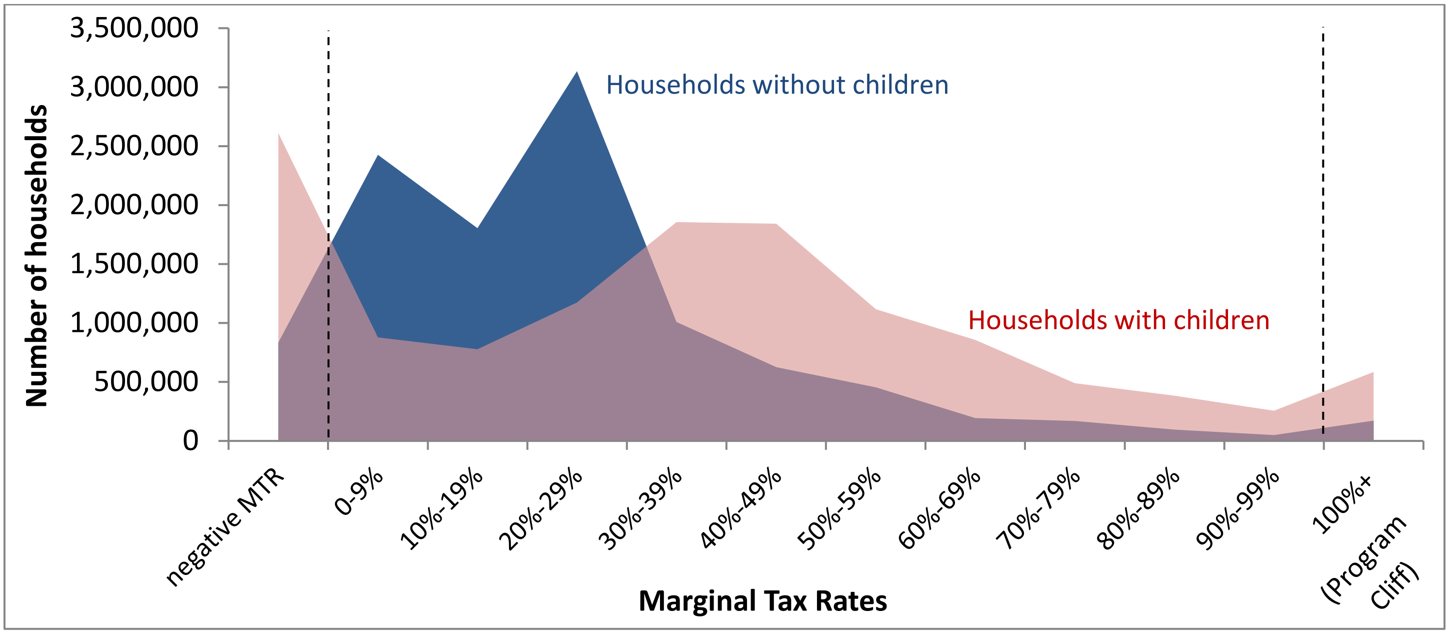
Some level of marginal tax rate is a natural and inevitable consequence of benefit programs targeting low-income households. Program benefits are designed to decline as earnings rise, yet marginal tax rates set too high may discourage work. The median U.S. household faces a marginal tax rate of 34 percent after a $2,000 earnings increase. We refer readers to the ASPE brief *"Marginal Tax Rates: A Quick Overview"* (https://aspe.hhs.gov/system/files/aspe-files/260661/brief1-intromtrs.pdf)

The picture is quite different for households without children (light blue line), for whom median marginal tax rates increase gradually to 23 percent (just under the poverty line), then remains steady as income continues to rise.

Households with Children Have Higher Marginal Tax Rates

Among households with incomes below 200 percent of the poverty threshold, those with children tend to have higher marginal tax rates than those without children. A large portion of low-income households with children have marginal tax rates from **20 to 59 percent** (6.0 million households, or 25 percent of low-income households with children; see Figure 2, red/lighter shaded area). In contrast, a large portion of low-income households without children have marginal tax rates from **zero to 29 percent** (7.4 million households, or 31 percent of low-income households without children; blue/darker shaded area)

Figure 2: Number of households below 200% poverty with various marginal tax rates, after a $2,000 earnings increase



Source: ASPE tabulation of microdata from the TRIM3 model, Current Population Survey, ASEC 2015.

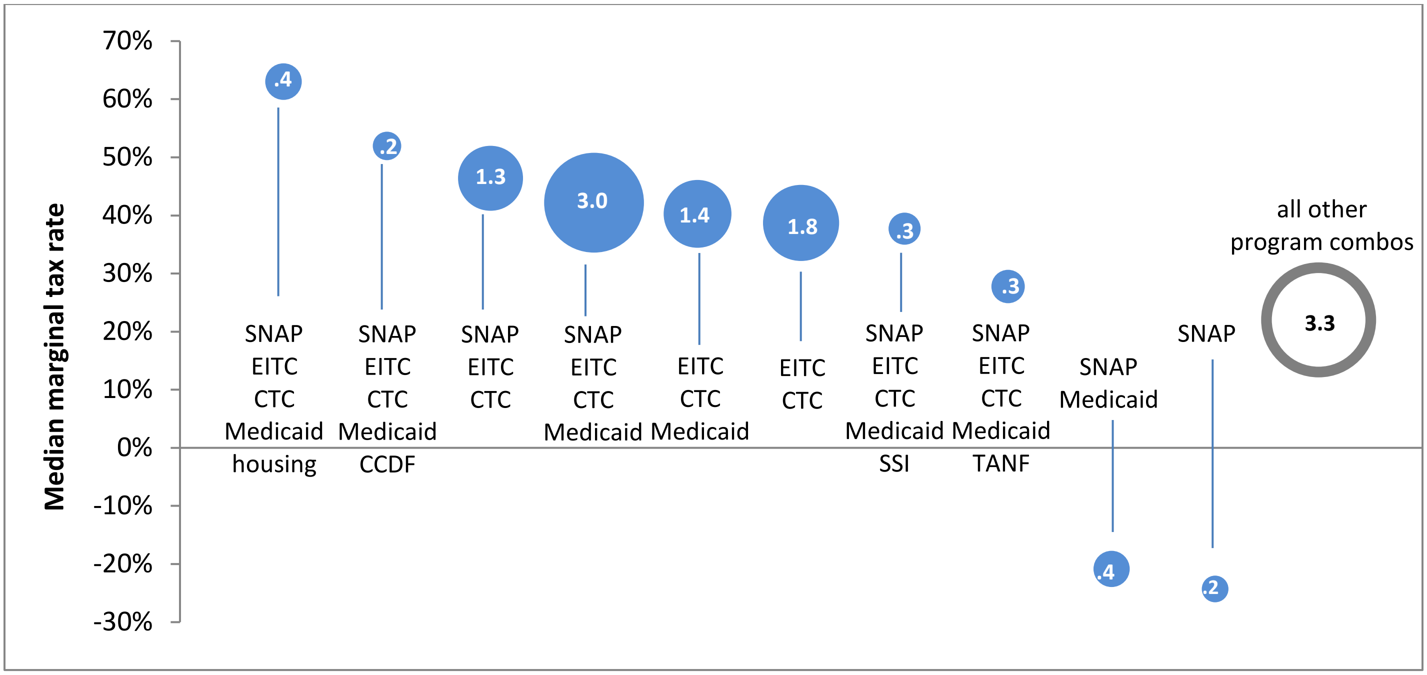
About 2.6 million households with children (or 11 percent of these households) face **negative marginal tax rates** (far left). On the other end of the spectrum, about 0.6 million households with children (2.5 percent of these households) face marginal tax rates that exceed 100 percent, that is, they face a **program cliff** effect where increased earnings actually have the effect of reducing total net resources. Relatively fewer households without children face either negative marginal tax rates (0.8 million, or 3.5 percent of these households) or program cliffs (0.2 million, or 0.7 percent of these households).

Marginal Tax Rates for Households Receiving a Combination of Programs

Figure 3 shows the 10 most common (mutually exclusive) program combinations that households with children below 200 percent of poverty receive. Approximately 3.0 million households receive **SNAP + EITC + Child Tax Credits (CTC) + Medicaid/Children's Health Insurance Program (CHIP)**. This is the most common combination of programs, and these families experience a median marginal tax rate of 42 percent. Approximately 400,000 households receive **SNAP + EITC + CTC + Medicaid/CHIP + housing**, and these households face a high median marginal tax rate (63 percent). Approximately 200,000 households receive **SNAP alone,** and these households face a low median marginal tax rate (negative 24 percent). About 3.3 million households receive programs other than the 10 most common combinations, captured in the large white circle at right; these households have a median marginal tax rate of 22 percent. Finally, 150,000 households with children below 200 percent of poverty receive no programs; these households have a median marginal tax rate of eight percent.

For more marginal tax rate topics see https://aspe.hhs.gov/marginal-tax-rate-series.

Figure 3: Marginal tax rates for households receiving the 10 most common program combinations (after a $2,000 earnings increase, for households with children below 200% poverty)



Notes: Bubble size represents the number of households (in millions). Programs include SSI, SNAP, TANF, housing, EITC, CTC, CCDF, and Medicaid/CHIP. Source: ASPE tabulation of microdata from the TRIM3 model, Current Population Survey, ASEC 2015.

Methodology

The analysis relies on the TRIM3 (Transfer Income Model) microsimulation model with calendar year 2014 data from the Current Population Survey. Analysis households (n = 63,493) had a householder or spouse between ages 18 to 64 without disabilities. In separate iterations, earnings increases of $2,000, $5,000, and $10,000 were simulated for each household. The following benefit programs were modeled: TANF, SNAP, CCDF, housing assistance, Medicaid/CHIP, federal incomes taxes and credits (including the EITC and Child Tax Credit), state income taxes and credits, payroll taxes, Supplementary Security Income (SSI), Women Infants and Children (WIC), Low Income Heating and Energy Assistance Program (LIHEAP), child support, and unemployment insurance. Administrative data were used to correct for underreporting of programs and benefit levels, with the exception of Medicaid/CHIP. Full details are described in the technical appendix: https://aspe.hhs.gov/system/files/aspe-files/260661/brief5-technicalappendix.pdf