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# Poverty Reduction through Federal and State Policy Mechanisms: Variation Over Time and Across the U.S. States

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**Abstract:** The efficacy of U.S. antipoverty policy is shaped both by its reliance on categorical sorting and by its decentralized structure. To examine the implications of these features, this study introduces a novel disaggregation of U.S. poverty reduction instruments into four mechanisms: taxes and transfers at the (centralized) federal level, and taxes and transfers at the (decentralized) state level. Using microdata from the Current Population Survey's Annual Social and Economic Supplement, and a sequence-independent decomposition, this analysis assesses the relative effectiveness of the four mechanisms over time at the national level, between 1996 and 2016, and across the U.S. states in 2016. The study finds that absolute and relative poverty reduction is greater and has increased over time for working-age households with children compared to those without children, a difference rooted in the disparate structures of the programs that serve them. The study also finds substantial variation across the U.S. states in market and disposable income poverty, and in the poverty reduction attributable to each of the redistributive mechanisms, which highlights the importance of examining poverty and antipoverty policy subnationally.

**Keywords**

Poverty, social policy, welfare state, decentralization, working-age household

## Introduction

One of the most common phrases used to describe social welfare policies in the U.S. is a "patchwork". Meant to refer to the assortment of programs that are defined by their categorical eligibility structures and income-targeting, these programs provide different forms of assistance – from cash to in-kind services – to different groups such as children or the elderly (Bailey and Danziger 2013; Brady, Finnigan, and Hübgen 2017; Duncan and Le Menestrel 2019). While this aspect of social welfare policy is well-known, a second key institutional feature that has attracted increasing attention is the variety of federal-state arrangements that define the decentralized configurations of these programs (Bruch, Meyers, and Gornick 2018). Taken together, these two features to a large extent, shape the distributional consequences of social welfare policies.

In this article, we examine the distributional consequences of these key institutional features of social welfare policies. We begin by distinguishing between federal- and state-level policy making, and between transfers and taxes; combining those, we assess and compare four policy mechanisms: federal transfers, state transfers, federal taxes, and state taxes. To capture the different categorical eligibility structures embedded in our policy mechanisms, we measure poverty reduction within two important household types: working-age households with and without children. Using Current Population Survey's Annual Social and Economic Supplement data and a sequence-independent Shapley decomposition, we examine the levels of absolute and relative poverty reduction attributable to the four policy mechanisms - further disaggregated by household type, by year (1996 to 2016), and by state. In doing so, we contribute conceptually and empirically to our understanding of how the institutional features of social provision shape poverty reduction, directing attention to two important consequences of safety net

decentralization—inequalities in poverty reduction across household types, and geographic inequalities in poverty reduction.

**Categorical Eligibility, Deservingness, and Poverty Reduction**

One of the key features of U.S. social provision is the tiered design of programs based on demographically-defined categorical eligibility structures. While some groups, such as the elderly and workers, enjoy standardized, national sources of protection that provide assistance through contributory social insurance policy designs, others, such as parents of dependent children, have access to more limited and localized supports that are largely income-targeted (i.e., means-tested). Importantly, these categorically-defined programs differ in terms of the overall quality and quantity of benefits as well as the policy instrument used (i.e., whether cash, in-kind, service, or tax expenditure). These differences map onto social distinctions – most especially race and gender – and related constructions of "deservingness" (Anderson 2004; Fraser and Gordon 1992; Katz 2013; Schneider and Ingram 1993; Steensland 2006). Together these result in a bifurcation between programs mainly serving the "deserving" groups, which are more politically-popular and thus more stable, and programs with more targeted designs serving less "deserving" populations (Brady and Bostic 2015; Korpi and Palme 1998; Pierson 1995).

Recent empirical research in this area examines the distributional impacts of the shifting approaches to social provision (i.e., the use of different types of policy instruments) as well as changes to specific programs in terms of expanding and contracting eligibility across populations (Brady and Parolin 2020; Fox et al. 2015; Moffitt 2015; Wimer et al. 2020). Seen as a particularly deserving group, children have been the focus of a great deal of poverty policy research (Bitler et al. 2017; Chen and Corak 2008; Duncan and Le Menestrel 2019; Gornick and

Jäntti 2012; Pac et al. 2017a; Pac et al. 2017b; Parolin 2021; Rainwater and Smeeding 2003;).[1] Among the most consistent findings in this research is that federal income tax credits (most especially the EITC) and near-cash food assistance (Supplemental Nutrition Assistance Program,[SNAP]) have played the largest roles in reducing child poverty over the past 20 years. Importantly, however, many social programs are conditioned on employment and so they are less effective for some of the most economically-marginalized families experiencing deep or extreme poverty (Brady and Parolin 2020; Duncan and Le Menestrel 2019; Shaefer and Edin 2013; Shaefer et al. 2020).

In part because of the work-conditioned and child-centered focus of many safety-net programs, an increasing amount of research examines working-age adults and households, both with and without children (Brady and Parolin 2020; Hingtgen et al. 2021; Wimer et al. 2016; Wimer et al. 2020), and on forms of assistance available for able-bodied adults without dependents or "ABAWDs" (Hahn et al. 2019). A consistent finding in this area is that households without children compared to those with children have experienced greater economic marginalization and received considerably less anti-poverty assistance over the past few decades. These differences in poverty reduction across demographically-different households reflects the categorical eligibility and income targeting shaping both access to assistance as well as the efficacy of differently designed programs for reducing poverty.

In the case of childless households, this is visible in the limited number of programs from which they benefit unless they are "categorized into assistance." While households without children can receive assistance specific to those with disabilities (such as Social Security

[1] Scholarship in this area at times focuses specifically on children as the unit of analysis, while at other times uses families or households, in recognition that these likely reflect the income pooling unit,. Using families or households as the unit of analysis also allows for comparative analyses between families or households with or without children.

Disability Insurance or Supplemental Security Income [SSI]), veterans (Veterans Administration benefits including disability compensation, retirement, or pension payments), or those that are employed (such as Unemployment Insurance and Worker's Compensation), many do not satisfy the additional categorical eligibility criteria these programs require, resulting in low levels of receipt (a pattern that we demonstrate below). Often the only recourse for childless households is assistance from state-based General Assistance and the Supplemental Nutritional Assistance Program (SNAP). General Assistance, however, is limited in its generosity (Schott 2020), and while SNAP has a substantial impact on poverty among childless households (Brady and Parolin 2020), SNAP's requirement of employment limits its effectiveness (Carlson et al. 2016), resulting in poverty reductions substantially lower than those among households with children.

**Changes Over Time in Poverty Reduction in the U.S.**

In the U.S. context, scholars have focused a great deal of attention on examining how the policy changes enacted during the "big bangs" of social policy - represented by the 1930s' New Deal period, the 1960s' War on Poverty, and the 1990s' welfare reforms - have impacted the economic outcomes of households, families, and individuals. Efforts to determine if President Johnson's War on Poverty was "won" (Burkhauser et al. 2021; Fox et al. 2015; Haveman et al. 2015) and the consequences of a reconfigured safety net that provides conditional, work-supporting services and expense-reducing benefits (Blank 2002; Halpern-Meekin et al. 2015; Heinrich and Scholz 2009; Ziliak 2009) continue to receive considerable attention. Recent work has also explored the efficacy of largely temporary policy changes made in response to the Great Recession (Bitler and Hoynes 2016; Chang et al. 2021; Larrimore et al. 2015; Moffitt 2013) and the COVID-19 pandemic (Bernstein et al. 2021; Bitler et al. 2020; Cooney and Schaefer 2021;

Moffitt and Ziliak 2020; Parolin and Curran 2021) characterized by fiscal stimulus cash supports and temporary federal extensions of benefits or eligibility for specific programs.

Several consistent empirical findings summarize the state of knowledge in this area. First, programs initiated or expanded during the War on Poverty and shortly after substantially reduced rates of poverty (Fox et al. 2015). Second, the cyclicality of responsiveness to need (e.g., low income and/or income volatility) of safety-net programs has changed in the post-welfare reform period with cash assistance becoming less responsive during this period (Bitler and Hoynes 2010; Hardy et al. 2018; Parolin 2021). Third, in the post-welfare reform period there has been a declining role of cash assistance (especially the Temporary Assistance to Needy Families [TANF] program), increasing importance of in-kind food assistance (SNAP in particular) and of work-conditioned tax benefits (federal and state EITCs) especially for poverty reduction and income gains among households with children and those able to work (Chang et al. 2021; Fox et al. 2015; Hoynes and Schanzenbach 2018; Wimer et al. 2020).

**Decentralization in Social Provision**

The second key institutional feature that defines safety net provision in the U.S. is the decentralization - the degree to which authority or discretion has been devolved to subnational governments, and especially state governments. The programs that comprise the patchwork of safety net provisions – from cash assistance to a wide range of in-kind forms of assistance and services, are decentralized to varying degrees. The devolution of discretion to state or local governments can occur in relation to three dimensions: financing, administration, and rule-making, each of which can be conceptualized as falling on a scale that runs from low to high levels of state discretion (Bruch et al. 2018). In terms of financing, the range of state discretion is shaped by the way in which fiscal responsibility (program funding) is split between state and

federal jurisdictions (from completely state-financed to completely federally-financed), and the degree of autonomy states have in spending federal dollars (e.g., block grants). In terms of rule-making, the range of discretion is shaped by both by the jurisdiction (federal, state) at which the basic standards for coverage, eligibility, and other programs elements are set, and by the range of choices allowed within those standards. In terms of administration, the range of state discretion is shaped by the direct jurisdictional responsibility (federal, state, local) for the design and management of program implementation, and the degree of autonomy afforded to state or local administrative agencies. Each safety net program has a distinct configuration of decentralization across these dimensions that represents the specific federal-state arrangement of shared responsibility.

Recognition of the extent and dimensions of decentralization in safety net programs have motivated an increasing amount of research examining cross-state differences in the generosity and scope of benefits, and terms or conditions of receipt (Bentele and Nicoli 2012; Cheng and Lo 2018; Hahn et al. 2017; Soss et al. 2011; Bruch et al. 2022). Other scholars have examined how different state policy choices result in cross-state variation or inequality in social safety-net provision and family policies (Bruch et al. 2018; Campbell 2014; Parolin and Daiger von Gleichen 2020; Meyers et al. 2001), in social service provision (Allard 2009; Kelly and Lobao 2021), and in state and local spending (Gais 2009; Hoynes and Schanzenbach 2018; McGuire and Merriman 2006; Hardy, Samudra, and Davis 2019; Reynolds et al. 2021; Azevedo-McCaffrey and Safawi 2022) and taxes (Newman and O'Brien 2011; O'Brien 2017). Finally, most similar to the current study, many scholars have examined the consequences for economic well-being of cross-state variation in policy designs and social provision (Bitler et al. 2017; Hardy et al. 2018; Laird et al. 2018; Schaefer et al. 2020; Parolin 2021). A key take-away from

all this research is that there is substantial cross-state variation in market-based poverty, in the programs and services available to assist economically marginalized populations, and in the efficacy of these programs at reducing poverty.

**Contributions and Research Questions**

A central claim in our work is that it is crucial to recognize the ways in which social welfare policy is structured and to use the institutional features that define it to guide empirical work exploring its consequences. In this article, we link the institutional features of categorically-defined eligibility, income targeting, and decentralization to four redistributive mechanisms, to examine the efficacy of poverty reduction over time and between demographically-different households, and to assess how poverty reduction varies across states. We aggregate household-level data to create "income packages" composed of market and private income sources, income transfers from various government programs, and income taxes, to measure the extent to which government actions reduce market-generated poverty through income redistribution.[2] We categorize social welfare programs and policies into four types. We first draw on a distinction between taxes and transfers, and then layer an additional distinction - between federal and state roles to separate redistributive instruments that are centralized (i.e., financed, administered, or designed at the federal level) from those that are partially or wholly decentralized (i.e., financed, administered or designed at the state or local level). Combining these two axes results in four redistributional policy mechanisms: federal transfers; state transfers; federal taxes; and state taxes.

[2] Government policies also affect the distribution of market income through a variety of "predistribution" policies that shape labor market processes and outcomes, however, the focus in this article is on redistributive policy mechanisms (but see O'Neill 2020 for discussion of the challenges in drawing this distinction, and Granovetter 1985 on the embeddedness of market income processes). Additional details on the poverty measurement decisions made in this article are described in the data and measures section.

We distinguish between taxes and transfers for both conceptual and empirical reasons. Conceptually, both taxes and transfers are government interventions aimed at reshaping market-income distributions, and, in the end, arguably, their effects on households' disposable income are experienced together. However, government transfers and taxes represent distinct policy tools that each impact household income in different ways as documented in recent studies of poverty and inequality reduction in the U.S. as well as in cross-national comparative research (see, e.g., Organization of Economic Cooperation and Development 2008; Gornick and Smeeding 2018; Caminada et al, 2019; Guillaud et al 2020; Parolin and Gornick 2021). There has also been increasing attention to the unique role of taxes in relation to poverty – both in terms of poverty alleviation through progressive taxation systems and income-targeted tax credits, and in terms of fiscal impoverishment whereby the payment of taxes push households into poverty by reducing their income (Martin and Prasad 2014; Kleiman 2021; Schechtl and O'Brien 2022). A central point made in both these areas of scholarship is the importance of identifying the distributive impacts of various types of direct taxes – especially income taxes and payroll taxes – for households at different points in the income distribution. As Martin and Prasad state, "Sociologists who ignore recent scholarship on taxation will misunderstand the causes of poverty and inequality and the means to address them" (2014: p. 332).

We distinguish between federal and state levels of government due to the large number of programs and policies that are designed, administered, or financed either jointly by federal and state governments or wholly at the state or local levels. We use the term "state transfers" to refer to both programs that are fully financed and operated by states (e.g., General Assistance) as well as programs that allow for some degree of state discretion in financing, administration, or rulemaking. For many safety net programs the degree of decentralization represents the latitude

afforded to state or local government to make discretionary decisions within federal programs, and in this way are, in fact, joint federal-state programs. And, we distinguish federal from state taxes in order to capture the unique role of state income taxes on household incomes (Newman and O'Brien 2011; Oliff, Mai, and Johnson 2012; O'Brien 2017; Williams, Waxman, and Legendre 2020).

Due to the decentralized designs of many safety net programs, states have varying levels and types of discretion that likely impact the efficacy of poverty reduction of specific programs. In particular, administrative and rulemaking discretionary choices that affect initial program access or take-up and continued enrollment, and financial and rulemaking choices that influence the generosity of benefits and availability of support services, stand out as particularly important for understanding poverty reduction. The role of state discretion in safety net programs with high levels of decentralization – programs like TANF have received the vast majority of attention with previous scholarship demonstrating how the devolution of discretion in relation to financial decisions (e.g., how to spend federal block-granted dollars and the use of state matching funds), and administrative and rulemaking decisions (e.g., the design and administration of the program, setting of benefit levels, and determining the provision of a wide range of supportive services) is associated with large cross-state differences in rates of receipt and average benefits received (Azevedo-McCaffrey and Safawi 2022; Hahn et al. 2017) and varying rates of poverty reduction (Parolin 2021; Hardy et al. 2019). However, substantial cross-state variation in program enrollment and average benefit levels exists even in programs with much lower levels of state discretion, such as SNAP (Ganong and Liebman 2018; Kogan 2017) and SSI (Duggan, Kearney, and Rennane 2015; Soss and Keiser 2006). In fact, looking across ten safety net program and using comparable policy indicators, Bruch and colleagues demonstrated that the level of state

discretion in safety net programs is associated with the magnitude of cross-state variation in the generosity of benefits and the inclusiveness of receipt, and that the increasing levels of discretion provided to states in the welfare reforms of the mid-1990s was associated with increased cross-state variation (Bruch et al. 2018).

Categorizing programs and policies along these two axes – transfers and taxes, and federal and state – reflects the interconnectedness between the institutional features of categorical eligibility and decentralization, and allows for an examination of the patterns of poverty reduction for differently situated households and how this varies over time and across states.

Among the wide range of methods used to estimate poverty reduction and redistribution, one common approach examines fiscal redistribution by adding (or subtracting) income components/sources and comparing the "pre" and "post" measures of poverty or inequality to estimate distributional impacts (Gornick and Smeeding 2018; Mahler and Jesuit 2006). Other common methods include microsimulation models that estimate the distributional impact of specific policies or programs (Duncan and Le Menestrel 2019; Fox et al. 2015; Pac et al. 2020), a variety of analytic approaches that use microdata and time series methods (Bitler et al. 2017; Hardy et al. 2018), microdata paired with aggregate policy indicators (Alper et al. 2021; Brady and Burroway 2012), and decomposition methods (Brady et al. 2017; Chen and Corak 2008).

In this article, we examine the contribution of the four mechanisms to poverty reduction, using a decomposition analysis unaffected by the sequence in which components are assessed based on the Shapley value (Azevedo et al. 2012). Using this sequence-independent decomposition, we estimate the poverty reduction attributable to each of the four policy

mechanisms, across two household types, from 1996-2016, using nationally representative household survey data.

We ask the following research questions:

1. How much poverty reduction is attributable to each of the four policy mechanisms, and how does poverty reduction differ between working-age households with and without children?
2. Given the considerable economic and social policy changes over the past few decades, how has the poverty reduction attributable to each of the policy mechanisms changed between 1996 and 2016?
3. Given the substantial role of state-level social policy provision, how does poverty reduction attributable to the redistributive mechanisms vary across the U.S. states?

## Data

We use the Current Population Survey's Annual Social and Economic Supplement (CPS ASEC) for the years 1995-2017 to create household income measures from the data's detailed income components, and then produce three-year moving averages for 1996-2016.[3] We focus on two household types: working-age households with and without children, defined as households with heads who are 18 to 64 years old with or without resident children under the age of 18 (see Appendix for more details on sample definition and measurement).

### *Household Income Measures*

We create two income measures, pre-tax-pre-transfer income and post-tax-post-transfer income; throughout this article, these are referred to as "market income" and "disposable

[3] CPS ASEC data used in these analyses were obtained from the IPUMS-CPS database (Flood et al. 2018). The analyses end in 2016 due to the lack of availability of the TRIM3-based adjustment for benefit underreporting (see discussion in footnote 9 for more information).

income", respectively. Market income includes income from wages and salary, self-employment earnings, farm income, retirement, survivor pensions, disability pensions, and annuities (see Table 1). Disposable income includes all market income sources, and also incorporates federal transfers, state transfers, federal taxes, and state taxes (see Table 1). We use the U.S. Census Bureau's poverty thresholds to determine whether a household is living in absolute poverty based on their market and/or disposable household income.[4]

< Table 1>

Transfers categorized as "state" include programs that range from completely state designed, financed, and administered (General Assistance[5]; Worker's Compensation[6]) to federal programs where states have high levels of discretion in each of these areas, such as Temporary Assistance to Needy Families (TANF) (see Table 2). States administer both the federal TANF

[4] There remain active debates on the measurement of poverty concerning the use of absolute or relative conceptualizations, unit of analysis, and income and expense components to include (see for example: US Office of Management and Budget 2021; National Research Council 1995, 2005).

The Census Bureau poverty thresholds vary by the size of the family, the number of dependent children, and the age of the head. We use the term absolute poverty here to indicate that we classify households as poor if their income falls below the "absolute" threshold for households with their characteristics.

There are two important differences between the Census Bureau's Official Poverty Measure and the measurement strategy used in this article. First, the Census Bureau's poverty thresholds are applied to families using the Census Bureau's definition of a family. In this article, the thresholds are applied to households using the Census Bureau's definition of a household. Second, the Census Bureau uses money income as their income definition which differs from the income definition used in this article (see Table 1 for a listing of the income components in each income definition).

[5] General Assistance programs are designed, financed, and administered by state and local governments, however the number of states without statewide programs or local programs mandated by statewide guidelines has declined over time so that by 2020, only 25 states offered these programs which vary in terms of benefit levels, categories of people who are eligible, and time limits (Schott 2020).

[6] Worker Compensation programs are administered by State Workers' Compensation Boards according to state legislative and regulatory laws and statutes which serve to define the coverage, benefits, and financing of the state-specific programs. These social insurance programs are financed by contributions from employers (and workers in three states). The exceptions are a handful of Workers' Compensation Programs for specific groups of employees that are administered by the federal government (Federal Employees' Compensation Program, Longshore and Harbor Workers' Compensation Program, Federal Black Lung Program, and Energy Employee Occupational Illness Compensation Program) (Murphy et al. 2021).

programs as well as separate state programs. States having broad flexibility in allocating how federal block grants funds are spent in the TANF program, and use state funding (i.e., maintenance of effort) in both the federal program and separate state programs. States also have discretion over program rules that determine eligibility and participation requirements (and sanctions for noncompliance) and set benefit levels (Center on Budget and Policy Priorities 2022).

States have moderate levels of discretion in financing, administration, and rule-making in some federal-state programs including child support and Unemployment Insurance where federal policies dictate program rules or guidelines within which states exercise discretion. For example, while states are charged with enforcing child support orders, and collecting and distributing assistance, they do so within broad federal rules and must meet certain federal requirements (such as establishing paternity). However, states set the bulk of enforcement guidelines which are upheld by state courts, and have a great deal of discretion within the guidelines in how to determine support award amounts (Congressional Research Service 2019). In the Unemployment Insurance (UI) program, states largely administer the program with federal oversight, and while federal laws and regulations provide broad guidelines on benefit coverage, eligibility, and benefit determination, the specifics of UI eligibility and benefits (amount and duration) are determined by each state and financed largely by state unemployment taxes (Congressional Research Service 2022).

States have lower levels of discretion in financing, administration, and rule-making in a handful of federal-state programs including energy assistance, housing subsidies, the Supplemental Nutrition Assistance Program (SNAP), Supplemental Security Income (SSI), and school lunch subsidies. In the Low-Income Home Energy Assistance Program (LIHEAP), the

majority of financing comes from a federal block grant provided to states, although a number of states provide supplemental state funds for specifically targeted groups. States have considerable rulemaking discretion in determining eligibility (categorical and income-based) and benefit levels and targeting within broad federal guidelines; and state and local governments administer programs, including outreach and enrollment, and benefits are provided directly to energy providers ((“Low-Income Heating Assistance Program Clearinghouse” 2021). The housing subsidies measure is an imputed value that includes both rental subsidy programs such as Section 8 vouchers and project-based public housing, both of which are primarily financed by the federal government.[7] Similar to LIHEAP, states have considerable rulemaking discretion in determining eligibility (categorical and income-based), benefit levels, and targeting within broad federal guidelines; and state and local governments operate, manage, and administer the programs (Center on Budget and Policy Priorities 2021a, 2021b).

The Supplemental Nutrition Assistance Program (SNAP), formerly the Food Stamp Program, is a program where the benefits are federally funded but states and federal governments share financial responsibility for the administration of the program. Administration of the program is done at the state and local county levels, although the federal government reviews state eligibility and benefit determinations which are largely determined by the federal government (Hoynes and Schanzenbach 2015). State administrative discretion and flexibility expanded with the passage of the 1996 PRWORA and subsequent federal regulatory changes and policies such as the 2002 and 2008 Farm Bills, which included expanding access and outreach with expedited application and recertification processes, and increased rule-making discretion to determine and implement policies aimed at improving access to benefits particularly for working

[7] The housing subsidy values are imputed by the Census Bureau (see “School Lunch and Housing Subsidy Value Imputation Details” section in the Appendix for details).

families such as broad based categorical eligibility and determine exemption policies and employment and training support provided for ABAWDs (US Department of Agriculture 2018; Economic Research Service 2022).

The school lunch subsidies measure represents an imputed value for the National School Lunch Program which is largely federally financed: local schools and districts are reimbursed by the federal government at a set rate per meal provided, but can choose to supplement this with their own funds (US Department of Agriculture 2017).[8] The program is administered at the federal and state levels in partnership with local schools and districts (Hoynes and Schanzenbach 2015). Administrative discretion concerning the contents and preparation of the lunch are made at the local level but must adhere to federally specified requirements, but rule-making, particularly concerning eligibility is largely federal although starting in 2010, local schools and districts gained discretion in being able to adopt community eligibility free meal policies (US Department of Agriculture 2015).

The Supplemental Security Income program is a federal program in which eligibility, benefit levels, and other rule-making decisions are largely federally-determined (Committee on Ways and Means, U.S. House of Representatives, 1996; U.S. Social Security Administration 2022). In terms of financing, benefits are largely federally-funded with states having the option to use their own funds to supplement these benefits, and administrative costs are shared by federal and state governments (Committee on Ways and Means, U.S. House of Representatives, 1996). While the program is federally administered, states administer their own disability determination process and supplemental benefits, and vary in other administrative decisions such as outreach (US Department of Housing and Human Services 2015).

[8] The school lunch subsidy values are imputed by the Census Bureau (see "School Lunch and Housing Subsidy Value Imputation Details" section in the Appendix for details).

As these policy and program descriptions make clear, distinguishing state discretion in the specific domains of policy design (financing, administration, or rule-making) allows us to pinpoint the particular types of decisions devolved to state and local governments. These descriptions also illustrate that state discretion in each of these domains of policy design is best conceptualized as a continuum, where there are lower or higher levels of discretion in each of these domains. We justify the classification of programs even with low levels of state discretion as state transfers to draw attention to the many ways that decentralized policy designs shape poverty reduction.

< Table 2>

Two income sources are categorized as federal transfers – Old Age, Survivors, and Disability Insurance (OASDI) and veteran's benefits. Both income sources include income from several programs that are all administered and financed at the federal level by the Social Security Administration and Veterans' Administration respectively.[9]

The final two policy mechanisms – federal taxes and state taxes – are captured by estimates derived from the National Bureau of Economic Research's TAXSIM program, a microsimulation tool that estimates total federal and state tax liabilities and credits using survey data (Feenberg and Coutts 1993). In our analyses below, we further disaggregate federal taxes into federal income taxes and Federal Insurance Contributions Act (FICA) payments made by household members.[10] In contrast, we do not include state-level payroll taxes for social programs,

[9] For more information on the specific programs included in each of these income sources, see Table 1.

[10] More information on the TAXSIM program as well as direct links to the internet portal are available on the NBER website at: http://users.nber.org/~taxsim/. Additional information on our use and analysis of TAXSIM, as well as our estimation and use of FICA, see Appendix.

paid by workers, because the magnitude of these taxes is limited - especially compared to FICA, which is characterized by both a high level of coverage and a substantial tax rate.[11]

*Benefit Underreporting*

Underreporting, especially in low-income households, is an important source of measurement error in data based on household surveys such as the CPS ASEC, where underreporting distorts estimates of poverty and poverty reduction (Stevens et al. 2018). Underreporting of benefits refers to not reporting receipt as well as reporting smaller dollar amounts than the amount of benefits received. Recent analyses comparing the CPS ASEC data to administrative data find that benefit underreporting ranges between 20-60% across several transfer programs, with higher rates of underreporting for Workers' Compensation, TANF, and SNAP, compared to OASDI and UI (Meyer and Mittag 2019; Meyer et al. 2015; Wheaton 2008).

To correct for underreporting, we employ a procedure developed by Parolin (2019) that uses the Urban Institute's Transfer Income Model (TRIM3) simulated benefit receipt data (Zedlewski and Giannarelli 2015). This correction approach imputes underreported benefit values using probability-based methods for three types of means-tested benefits, SNAP, TANF, and SSI. The approach increases the SNAP, TANF, and SSI dollars accounted for in the ASEC data to between 84 and 94% of corresponding amounts available in administrative data sources.[12]

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[11] State-level unemployment compensation programs are financed by payroll taxes, with the contributions paid almost entirely by employers; employees contribute in three states. In a few states, employees pay modest contributions - mostly for parental leave, family leave, and/or temporary disability insurance programs - but these impose comparatively small-scale burdens on workers.

[12] As Brady and Parolin (2020) note, TRIM3 adjustments made to CPS data likely result in 'lower-bound' estimates of poverty, both because CPS data exclude groups likely to be facing extreme poverty, such as the homeless, and because TRIM3 adjustments can overestimate the size and recipiency rate of transfers when compared to administrative data (Stevens et al. 2018). See Appendix for discussion of a comparison of TRIM3 estimation to administrative sources, and for selected analysis results without the adjustment.

## Analytic Approach and Methods

To examine the extent of poverty reduction attributable to each of the four policy mechanisms (federal transfers, state transfers, federal taxes, state taxes), we estimate a Shapley value-based decomposition (Shorrocks 2013). This decomposition procedure addresses one of the classic issues involved in estimating poverty or inequality reductions attributable to various transfers or taxes – the sequence in which income components are added (Caminada et al. 2019). The Shapley value calculates the contribution of each income component (in this case, income components bundled by policy mechanism) independent of the order of their contribution by averaging the potential contributions of each component across all possible permutations.[13] The result is a sequence-independent decomposition estimation of the marginal poverty reduction attributable to each mechanism. While the benefit of the Shapley decomposition is that it estimates average changes in poverty attributable to a given component across all possible sequences of a household's total income components, the absolute impact of a single component on a household's poverty can be greater or lesser depending on the size of the other components included in the sequence. Thus, the Shapley decomposition cannot counterfactually simulate the effect of an income component on poverty absent all others. For analyses that estimate changes in poverty using counterfactual simulations see Pac et al. (2020). This approach to estimating poverty reduction also does not account for behavioral changes that might result from the receipt

[13] The Shapley decomposition estimation we employ was developed by João Pedro Azevedo and colleagues and made available through the Stata statistical package ADECOMP (Azevedo et al. 2012). ADECOMP further decomposes changes in poverty into Foster-Greer-Thorbecke indices (Foster et al. 1984). We measure changes in poverty as changes in the Foster-Greer-Thorbecke headcount ratio (FGT (0)), or the proportion of the population which is poor. While the ADECOMP procedure was designed to measure changes in poverty and inequality between two points in time, we adapt the application to measure changes in poverty before and after households receive non-market income. Thus, we decompose the change in absolute poverty for households between two different income definitions (i.e., market income and disposable income).

of transfers or taxes, such as changes in labor force engagement that could themselves impact levels of market income poverty (see for example, Bitler and Karoly 2015 for overview of intended and unintended consequences).[14]

We perform this decomposition procedure at both the national and state levels among each household type using three-year moving averages. The decomposition methodology allows us to examine the overall poverty reduction attributable to each of the four redistributive mechanisms for the entire country as well as to examine how the poverty reduction impacts vary across the states. We estimate two types of poverty reduction: absolute reductions are calculated as the difference between market and disposable income poverty attributable to each mechanism; and relative reductions are calculated as the percentage of market income poverty reduced overall and attributable to each mechanism.

**Results**

*Decomposing Poverty Reduction Within Household Types in 2016*

To determine how much overall poverty reduction is attributable to each of the four policy mechanisms, we present results from our poverty decomposition analysis for working-age households with and without children in 2016. Three findings stand out from this analysis.

First, market income poverty is reduced much more for households with children compared to households without children. In fact, looking absolutely and relatively, the poverty reduction for households with children is twice as large compared to households without children: .100 compared to .054 for the absolute reduction; and 59% compared to 29% of market

[14] For example, the federal EITC has been shown to increase paid work effort among low-income mothers, and in doing so, reduces levels of aggregate market income poverty (Meyer and Rosenbaum 2001). On the other hand, the change from an entitlement to cash assistance in the Aid to Families with Dependent Children program to the work conditioned eligibility for cash assistance in the TANF program, increased hours worked and labor market earnings but did not substantially reduce poverty (Matsudaira and Blank 2013).

income poverty reduced respectively (Table 3). These dramatic differences in poverty reduction are in part due to the fact that, for households with children, two of the four mechanisms reduce market poverty by at least 25% (state transfers 35% and federal taxes 26%), whereas for households without children, only one of the mechanisms – federal transfers – reduces market poverty to this degree.

Second, we find that the primary poverty reduction mechanisms for each household type differ. Looking at poverty reduction absolutely or relatively among households with children, the greatest poverty reduction is attributable to state transfers (59% of overall absolute poverty reduction; market poverty reduced by 35%) (Table 3).[15] Federal income taxes have the second largest poverty reducing impact, followed by federal transfers, and state taxes, whereas FICA payments made by these households serve to increase market poverty. The large role of state transfers is attributable to the large average dollar amount received by households with market incomes below the poverty line ($9,568), and the high rate of receipt (98%).[16] Unpacking this mechanism to look at specific programs, we find that the two food assistance programs are received by the vast majority of market poor households with children: SNAP benefits are

[15] The poverty reduction attributable to state transfers is smaller and the reduction attributable to federal transfers is larger if programs with lower levels of state discretion such as SNAP and/or SSI are recategorized as federal transfers (see Appendix Table A2). In brief, for working age households with children, if one were to classify SNAP and SSI as federal instead of state transfers, the balance of poverty reduction we have attributed to federal and state transfer mechanisms is reversed: instead of state transfers comprising a 0.058 absolute poverty reduction and a 35% relative reduction and federal transfers comprising 0.015 of absolute and a 9% relative reduction, we see that the contribution of federal transfers increases substantially to a 0.053absolute poverty reduction and a 31% relative reduction, and the contribution of state transfers is considerably reduced to comprise a 0.019 absolute reduction and a 12% relative reduction. Examining the results when only SSI or SNAP is reclassified as a federal transfer, we see that the impact of reclassifying SNAP is much greater than reclassifying only SSI. This is in large part due to the much higher rates of SNAP receipt among market-poor households with children (89%) compared to rates of receipt for SSI (20%).

[16] The poverty reduction attributable to state transfers is smaller when the TRIM3 adjustment for benefit underreporting is not used: 47% of the overall reduction and an average transfer value of $7,004 and rate of receipt of 89% (see Table A1 for complete unadjusted estimates).

received by almost 90% of households with an average value just under $5,000, and school lunch subsidies are received by 70% with an imputed average value just over $1,000 (Table 4).[17] Three other state transfers are received by approximately one in five of these households: Supplemental Security Income (20%), TANF (17%), and child support (17%) with average values of approximately $9,000, $4,000, and $5,000. The state transfer program with the highest average value ($17,401), Workers Compensation is received by less than 2% of households. Moving to federal transfers, the smaller poverty reduction attributable to this mechanism results from the lower rates of receipt (18%) even though the average dollar amount received is high ($15,905). In unpacking this mechanism to look at specific programs, we find that much of the poverty reduction attributable to federal transfers is from OASDI which is received by 17% of these households with average values of almost $15,000.

<Table 3 and Table 4>

Turning to taxes, we distinguish between households whose tax value is positive (net receiving income), negative (net payer), or zero (net neither receiving or paying) (see Table 5).[18] For households with children, federal taxes are the second largest poverty reduction mechanism: 63% of market income poor households on net receive income from this source with an average value of $5,309. State taxes on the other hand, reduce poverty very little for these households in part because only 29% on net receive income from this source, and the average value is relatively small ($553). FICA payments, on the other hand, contribute to overall poverty. More

[17] The value of school lunches, as well as other noncash transfers, are imputed by the Census Bureau rather than reported by the interviewee. See Appendix for details on how the value is imputed.

[18] We do not include a detailed "unpacking" for taxes into specific credits (i.e., EITC, Child Tax Credits, and Child Care Tax Credits, etc.) because we are unable to provide data on child care expenses (and a few other of the data components, such as capital gains and losses), that TAXSIM uses to estimate specific credits and tax liabilities.

than 63% of market income poor households with children pay FICA, with an average annual payment of $2,091.

<Table 5>

Last, the poverty reduction mechanism mix is much different for households without children. By far the largest share of total poverty reduction is attributable to federal transfers, followed by state transfers (Table 3).[19] Federal transfers are received by 41% of these households (more than twice the rate of receipt for households with children) with large average values ($16,142). Unpacking this mechanism, we see that almost 40% of market poor households without children receive income from OASDI with an average value of approximately $15,000 (Table 4).[20] State transfers reduce poverty less because although this type of transfer is received by 67% of these households, the average value is much smaller ($5,275). This relatively high rate of receipt of state transfers masks very different rates of receipt across the specific programs: while almost 60% of these households receive SNAP with an average value of almost $2,000, and just over 20% receive SSI with an average value of approximately $7,700, the remaining transfer programs are rarely received by these households.

[19] The poverty reduction attributable to state transfers is smaller and the reduction attributable to federal transfers is larger if programs with lower levels of state discretion such as SNAP and/or SSI are recategorized as federal transfers (see Appendix Table A2). In brief, reclassifying SNAP and SSI as federal transfers, the absolute and relative poverty reduction attributable to federal transfers increases (from 0.046 to 0.058 and from 25% to 33% respectively), and the poverty reduction attributable to state transfers decreases (from 0.021 to 0.005 and from 11% to 4% respectively). Interestingly, reclassifying either SNAP or SSI as federal transfers results in relatively similar changes to the contribution of federal versus state transfers. This more muted overall poverty reduction change, and the program-specific results reflect differences in rates of receipt and average values of SNAP and SSI for households without children.

[20] Further disaggregating the source of OASDI income of these households shows that the majority (approximately 70%) indicate the source as disability, while approximately 25% report retirement as the source. This relatively high rate of receipt of OASDI income among this household type is due in part to the age range included in our definition of working-age (i.e., up through age 64). While the age range used is consistent across households with and without children, household heads of market income poor households without children are on average about 10 years older (age 49) than heads of poor households with children (age 38). The higher rate of receipt for households without children also reflects a larger percentage of these households having a spouse or other adult in the household who is eligible to receive OASDI retirement income. For example, in 2016, of market income poor households without children receiving OASDI, approximately 19% contain a spouse who is a recipient.

In sharp contrast to households with children, rather than contributing to poverty alleviation, federal and state income taxes on average push households without children into poverty (although both the absolute and relative changes in poverty are small). This potentially unexpected result is explained by the fact that only 21% and 15% of these households receive income from federal and state income taxes respectively, whereas the vast majority neither receive nor pay (75% and 78% respectively), and a small percentage are net payers (4% and 8% respectively) (Table 5).

*Decomposing Poverty Reductions Within Household Types 1996-2016*

Turning to our second research question, in this section we describe changes in market and disposable income poverty over time, and examine shifts in both total poverty reduction and mechanism-specific reductions across both household types. Four findings stand out from these analyses.

First, market and disposable income poverty declined from 1996 to 2016 for households with children, whereas both increased for households without children (see Figure 1 and Table 6). For households with children, market and disposable income poverty declined most dramatically from 1996 to 2006. However, from 2008 to 2012, while there was a substantial increase in market income poverty, disposable income poverty continued to decline to a low of 6.2%. For households without children, growth in market and disposable income poverty rose throughout this period, most substantially from 2008 to 2012.

< Figure 1 and Table 6>

Second, for both household types, total poverty reduction increased from 1996 to 2016: from an absolute reduction of 8 percentage points in 1996 to 10 in 2016 for households with children; and from 3 to 5 percentage points for households without children (Table 6). However,

the total poverty reduction increased more substantially for households with children, especially when calculated as the percentage reduction in market income poverty, increasing from a 41% reduction in 1996 to a 59% reduction in 2016, compared to an increase from 25% to 29% for households without children. This divergence in poverty reduction is most dramatically illustrated in the Great Recession and recovery period (2008 and 2012) when there is a substantial increase in market income poverty for both household types, but unlike households without children, the level of disposable income poverty does not increase during this period for households with children. The increases in total poverty reductions during this period demonstrate that the U.S. tax and transfer system was responsive to increases in market income poverty, however, they also demonstrate that the system reduces poverty to varying degrees for differently-situated households.

Third, disaggregating these total poverty reductions, we find that across the 1996 to 2016 period, state transfers remain the largest poverty reduction mechanism for households with children, and that federal taxes play an increasing poverty reduction role (see Figure 2 and Table 6). In contrast, for households without children, federal transfers remain the primary poverty reduction mechanism throughout the period, with both federal and state transfers increasing their poverty reduction from 1996 to 2016.

< Figure 2>

Looking first at the role of state transfers for households with children, we find different trends depending on the poverty reduction measure used. When examining the absolute amount of poverty reduced by state transfers, we see an increase in the Great Recession and recovery period, followed by a decline in 2016 to a level that remains slightly lower than the poverty reduction in 1996 (.068 in 2016 and .0.058 in 1996) (Table 6). Shifting to the share of the total

absolute poverty reduced by state transfers, we find that on this metric, poverty reduction has fallen steadily since 1996 from comprising 82% of the absolute reduction to 59% in 2016, replaced by the increasing significance of federal income taxes as a share of the total absolute reduction from 33% to 44%. However, shifting the focus to relative poverty reductions shows that while the percentage of market income poverty reduced by state transfers fluctuates from a low of 30% in 2000 to a high of 44% during the Great Recession recovery period, the starting and ending period values are remarkably similar (34% in 1996 compared to 35% in 2016). Throughout this period there are also high rates of receipt, fluctuating between 89-98%, and substantial average amounts received, from a low of approximately $9,500 in 2008 to a high of nearly $12,000 in 2012. Taken together, these results suggest a consistently large and increasing role for state transfers for households with children. Unpacking this poverty reducing mechanism, we see that a substantial portion of these households receive income from several sources throughout this period: SNAP (ranging from a low of 61% to a high of 89%), school lunches (66%-70%), SSI (19%-21%), TANF (17%-54%), housing subsidies (19%-26%), energy assistance (12%-16%), child support (17%-21%), and Unemployment Insurance (5%-15%). However, the mix of specific programs that contribute to this poverty reduction shift quite substantially during this period. We see significant declines in rates of receipt of TANF (from 54% in 1996 to only 17% by 2016) and average values (from over $6,000 to approximately $3,800), paired with increasing rates of receipt of SNAP (from 72% to 89%) and average values (from approximately $4,400 to over $5,000).

While the poverty reduction attributable to federal income taxes increased during this period for households with children, the role of state income taxes has remained consistently small. Poverty reductions attributable to federal income taxes increase from an absolute

reduction of .028 in 1996 to .044 by 2016, and from a relative reduction from 14% of market income poverty to 26% (Table 6). This increase in poverty reduction is due to the substantial increase in the average amount received – from $2,778 in 1996 to $5,309 in 2016 (Table 5). Turning to state income taxes, while the average value received and rates of receiving income from this source both increased (from $139 to $553, and from 16% receiving to 29%), the poverty reduction from this mechanism remained limited throughout the period. Throughout this period, FICA contributed to overall poverty with 63% of households with children paying in both 1996 and 2016, with average payments of $1,835 and $2,091 respectively.

Finally, for households without children, from 1996 to 2016, federal transfers increase their primary poverty reduction role, while the secondary role of state transfers remains relatively consistent. Looking first at federal transfers, we find that the absolute percentage points of poverty reduced increased from 1996 to 2016 from 3 to 5, while the percentage of market poverty reduced increased from 23% to 25% (Table 6). These increases are due in part to an increase in the higher rates of receipt of income from this mechanism (39% to 41%), but to a larger degree by an increase in the average amount received ($13,221 to $16,142). Unpacking this to look at the rates of receipt and average values separately for OASDI and Veterans' benefits, we see that rates of receipt increased slightly for OASDI (from 37% to 39%) but remained similarly low for Veterans' benefits (4% to 3%), while the average amount received from OASDI increased from $12,722 in 1996 to $15,261 in 2016 (Table 4). State transfers comprise the second largest source of poverty reduction for households without children, peaking in the period directly following the Great Recession (absolute reduction of 4 percentage points, and 21% of market income poverty reduced), before declining to similar levels of absolute and relative poverty reduction in 2016 as in 1996. Unpacking this to examine the rates

of receipt and average values for specific programs, we see that rates of receipt and average values of SNAP increased (from 30% to 58%, and from less than $1,500 to over $1,800), the role of SSI remained consistent with 21-22% of households without children receiving approximately $7,500 on average, and the role of General Assistance declining (from 5% to just over 1% receiving this form of assistance receiving on average $4,000 in 1996 declining to approximately $3,800 by 2016).

Turning to the role of the two tax mechanisms, unlike for households with children, federal and state taxes contribute to rather than reduce poverty throughout this period (Table 6). Though their absolute and relative impacts remain small, these mechanisms impoverish households without children both due to the consistently low percentages receiving income (between 21%-47% for federal income taxes, and between 15%-18% for state income taxes) (Table 5), and the small average values these mechanisms provide (between $120-230 for federal income taxes throughout the period, and between $50-100 for state income taxes) (Table 6).

*State-Level Poverty Decomposition Within Household Types in 2016*

In this final section of results, we turn to an examination of state-level market and disposable income poverty rates, and examine cross-state variation in total poverty reduction and mechanism-specific reductions across both household types. Three findings stand out from these analyses.

First, market and disposable income poverty rates vary across states, but there is greater cross-state variation in disposable income poverty compared to market poverty. When only accounting for market income, the percentage of households with children who fall under the poverty threshold ranges from a high of 28% in Mississippi to a low of 9% in Minnesota (a cross-state range of 19 percentage points, see Figure 3). Looking at disposable income poverty,

the extent of cross-state variation declines from a high of 13% in Louisiana to a low of 3% in Minnesota (a cross-state range of 10 percentage points). A similar pattern is found for households without children: market income poverty ranges from 30% in West Virginia and Mississippi to 11% in North Dakota and New Hampshire (a cross-state range of 19 percentage points); and disposable income poverty ranges from 23% in Mississippi to 7% in New Hampshire (a cross-state range of 16 percentage points).

< Figure 3>

Second, the total poverty reduction varies considerably across states. Looking first at absolute poverty reductions, an important pattern is observed for households with and without children: greater poverty reductions are observed in states with higher levels of market poverty (see Figure 3). For example, Mississippi has the highest percentage of households with children in market income poverty, and it also has the largest absolute poverty reduction (15 percentage points). Similarly, for households without children, West Virginia has the highest percentage of households in market income poverty, and also the largest absolute poverty reduction (11 percentage points). This pattern, in part, helps to explain why we observe a smaller degree of cross-state variation in disposable income poverty levels compared to market income poverty.

However, a different picture emerges if we examine relative poverty reductions. For both household types, we see that although there are large cross-state differences in the percentage of market income poverty reduced, states with the highest rates of market income poverty do not have the largest percentage reductions (see Figure 4). In fact, in the case of households with children, the state with the lowest rate of market income poverty (Minnesota) has the highest relative reduction – reducing fully 73% of market income poverty. Whereas in the state with the highest rate of market income poverty (Mississippi), 54% of market income poverty is reduced,

and the two states with the smallest poverty reduction (45%, North Dakota and Arizona) have very different levels of market income poverty (12% and 22% respectively). A similar pattern is observed for households without children (see Figure 4). For example, although Alaska has the largest relative poverty reduction (43%), it is in the bottom quarter of states in terms of market income poverty. These patterns suggest that the degree to which market income poverty is reduced is not simply a function of market income poverty, but also other factors including state-level differences in the poverty reduction efficacy of different policy mechanisms.

<Figure 4>

Third and finally, the poverty reduction attributable to each policy mechanism varies across states, whether examined as an absolute reduction or percentage reduction of market income poverty. As we found at the national level, for households with children, state transfers reduce poverty the most followed by federal taxes. What is observed here is that the extent of poverty reduction attributable to these mechanisms varies quite a bit across states: for state transfers, the absolute reduction ranges from .03 to .08, and the relative reduction from 18% to 49% of market poverty; and for federal taxes, the absolute reduction ranges from .02 to .07, and the relative reduction from 10% to 37% of market poverty. Looking at how these state-specific poverty reductions are associated with state-level market and disposable income levels, we find stronger associations between market income poverty and these two mechanisms (state transfers $r$ = .76 and federal taxes $r$ = .83), but only slightly weaker associations between disposable income poverty and these mechanisms (state transfers $r$ = 0.56 and federal taxes $r$ = .75).

Turning to households without children, we also observe a pattern consistent with the national level finding that federal transfers reduce poverty the most for these households. And similar to the cross-state variability findings for households with children, we find considerable

cross-state variation in the poverty reduced by this mechanism: the absolute reduction ranges from .02 to .11, and the relative reduction ranges from 13% to 43% of market poverty. In terms of how these poverty reductions are associated with state-level market and disposable income levels, we find stronger associations between market income poverty (r = .87) compared to disposable income poverty (r = .74). These patterns suggest that while the cross-state variation in poverty reduction attributable to the redistributive mechanisms are strongly related to levels of market and disposable income poverty, they also likely reflect compositional differences within these household types as well as state-level differences in approaches to poverty.

**Discussion**

In this article, we argue that the institutional design features of categorically-defined eligibility, income targeting, and decentralization in social welfare policies result in differential efficacy in poverty reduction across households with and without children. To highlight how this occurs, we draw on the distinction between taxes and transfers as distinct mechanisms of redistribution, and further distinguish between taxes and transfers that are wholly administered, financed, and designed at the federal level compared to taxes and transfers that allow for some level of state discretion. Using the resulting set of four redistributive mechanisms (federal transfers, state transfers, federal taxes, and state taxes) and a sequence-independent decomposition procedure, we examine the poverty reduction efficacy attributable to each mechanism for two household types (working-age with and without children) over a twenty-year period.

Several important findings stand out. First, we find increasing and larger poverty reductions for working-age households with children compared to those without children from 1996 to 2016. A consequence of these unequal poverty reductions is a widening gap in

disposable income poverty rates between households with and without children, and a safety net which is more responsive to increases in market income poverty for households with children compared to households without children (Brady and Parolin 2020; Wimer et al. 2020).

Second, market poor households with children have a more diversified assistance package whereby poverty is reduced to some degree by all four redistributive mechanisms, and in which there are seven specific programs that are received by at least 15% of this population. This contrasts with market poor households without children for whom poverty is only reduced by federal and state transfers, most of which are received by only a small percentage of this population (only four programs are received by at least 15% of this population), whereas federal and state taxes push these households further into poverty. Being able to access a broader set of safety net programs reflects the social construction of children as a particularly "deserving" population for whom a variety of programs are designed. This contrasts with the social construction of working-age households without children as a group less "deserving" of targeted assistance unless they have specific status characteristics such as being a veteran or having a disability which "categorizes them into assistance".

However, even though market poor households with children are categorically eligible for several different types of assistance, many of these programs are decentralized to some degree. A substantial share of the poverty reduction experienced by these households is attributable to decentralized transfer programs such as UI, SNAP, SSI, TANF, Workers' Compensation, and school lunch subsidies. It is also notable that the two state transfers that contribute the most to the poverty reduction for households with children (SNAP and SSI) are both programs with comparatively low levels of state discretion.

The decentralized nature of these transfer programs is important – whether low, moderate, or high – because the decisions that states make in financing, administration, or rule-making result in geographically-defined differences in quantity (i.e., benefit levels), quality (i.e., the terms or conditions of receipt), and access (i.e., coverage or inclusion) to safety net assistance across states. While programs with higher levels of state discretion vary more considerably across states in their generosity and inclusiveness (Bruch et al. 2018), state policy and administrative decisions in programs even with lower levels of state discretion, including SNAP and SSI, have been shown to contribute to inequities in receipt and benefits for economically marginalized individuals and families (Ganong and Liebman 2018; Kogan 2017; Edwards et al. 2016; U.S. Department of Housing and Human Services 2015; Sevak and Bruns 2018; Hemmeter et al. 2021). Policy and programmatic differences across states contribute to the cross-state inequality in poverty reduction reported in the current article and in previous research (Laird et al. 2018; Parolin 2021) reflecting the unequal responses to citizen needs across states. This is particularly concerning in regard to race whereby a considerable body of previous scholarship has demonstrated that states with higher percentages of African Americans have more paternalistic and punitive safety net policy designs (Soss et al. 2011), are less inclusive (Bruch et al. 2022; Floyd et al. 2021), and are less effective at reducing poverty for racially marginalized populations (Bitler, Hoynes, and Kuka 2017; Parolin 2021; Gaines, Hardy, and Schweitzer 2021; and Kelly and Lobao 2021). A key take-away from our findings is that the role of decentralization in the U.S. safety net or "discretion by design", encapsulated in our distinction between state and federal programs, is an important institutional feature that structures inequality in social provision and deserves continued attention by poverty scholars.

The second key distinction made in this article, distinguishing between transfers and taxes, also leads to a number of important insights. First, there is an increasingly important role being played by federal taxes in poverty reduction for household with children (Duncan and Le Menestrel 2019; Fox et al. 2015). Second, state income taxes also provide an increasingly, albeit smaller, role in poverty reduction for these households (Williams et al. 2020; Pac et al. 2020). The expanding role of tax mechanisms reflects growing evidence regarding their effectiveness in income-targeting and poverty reduction (Hoynes and Patel 2018; Eissa and Hoynes 2011). Yet, tax mechanisms differ from transfers in important ways such as being more "hidden", having broader political support, and being less stigmatizing for recipients (Howard 1999; Martin and Prasad 2014). Identifying the unique role of state taxes also provides an opportunity to examine cross-state inequalities in treatment of similarly-situated households, and to explore the determinants of the policies that shape these distributional consequences (Newman and O'Brien 2011; O'Brien 2017).

The findings from this article also demonstrate the disadvantageous distributional consequences for households without children from both federal and state tax mechanisms which serve to increase their impoverishment. This results in part from relatively small percentages of these households receiving income from federal or state taxes, and is reflected in the ongoing debate about whether to expand tax credits such as the EITC for childless adults and households (Dolby et al. 2022; Marr and Huang 2020).

Finally, our findings on the cyclical responsiveness of the U.S. tax and transfer programs (especially for households with children) echo work on poverty alleviation in recent policy debates that demonstrate the importance of the expansion of social safety net programs during the pandemic. These include cash transfers such as the COVID-19 economic impact payments;

expanded UI benefits; the expansion of food assistance programs, including both subsidized school meal assistance and SNAP; as well as the large anti-poverty impact of the temporary expansion of the Child Tax Credit (Parolin et al. 2022; Cooney et al. 2022).

The poverty reduction analyses provided in this article highlight the utility of sequence-independent decompositions for opening the "black box" of poverty reduction estimates, and for examining between state variation in poverty alleviation. Nevertheless, future research using decomposition methods that incorporates demographic, labor market, and other factors can build on this work to further unpack the state-level variation in taxes and transfers that we observe here. Additionally, future work employing panel regression techniques will be important to assess year-to-year changes within states, and can serve as a complement to work such as ours that focuses on between state differences.

**References**


Allard, Scott.W. *Out of Reach: Place, Poverty, and the New American Welfare State*. New Haven: Yale University Press, 2009.

Alper, Kaitlin, Evelyne Huber, and John D. Stephens. "Poverty and Social Rights Among the Working Age Population in Post-Industrial Democracies." *Social Forces* 99, no. 4 (2021): 1710-44.

Anderson, Elizabeth. "Welfare, Work Requirements, and Dependent Care." *Journal of Applied Philosophy* 21, no. 3 (2004): 243-56.

Azevedo-McCaffrey, Diana, and Ali Safawi. *To Promote Equity, States Should Invest More TANF Dollars in Basic Assistance*. Washington: Center on Budget and Policy Priorities, 2022. https://www.cbpp.org/sites/default/files/atoms/files/1-5-17tanf.pdf.

Azevedo, João Pedro, Viviane Sanfelice, and Minh C. Nguyen. "Shapley Decomposition by Components of a Welfare Aggregate." MPRA Paper No. 85584, University Library of Munich, Germany, September 2012. https://mpra.ub.uni-muenchen.de/85584/.

Bailey, Martha J., and Sheldon Danziger, eds. *Legacies of the War on Poverty*. New York: Russell Sage Foundation, 2013.

Baker, Regina S. "Why is the American South Poorer?" *Social Forces* 99, no. 1 (2020): 126-54.

Bentele, Keith Gunnar, and Lisa Thiebaud Nicoli. "Ending Access as We Know It: State Welfare Benefit Coverage in the TANF Era." *Social Service Review* 86, no. 2 (2012): 223-68.

Bernstein, Hamutal, Dulce Gonzalez, and Michael Karpman. *Adults in Low-Income Immigrant Families Were Deeply Affected by the COVID-19 Crisis yet Avoided Safety Net Programs in 2020*. Washington: Urban Institute, 2021. https://www.urban.org/research/publication/adults-low-income-immigrant-families-were-deeply-affected-covid-19-crisis-yet-avoided-safety-net-programs-2020.

Bitler, Marianne and Hilary W. Hoynes. “The State of the Social Safety Net in the Post-Welfare Reform Era. Brookings Papers on Economic Activity.” *Brookings Papers on Economic Activity*, no. 2 (2010): 71-127.

Bitler, Marianne and Hilary W. Hoynes. “The More Things Change, the More They Stay the Same? The Safety Net and Poverty in the Great Recession.” *Journal of Labor Economics* 34, no. S1 (2016): S403-44.

Bitler, Marianne, Hilary Hoynes, and Elira Kuka. "Child Poverty, the Great Recession, and the Social Safety Net in the United States." *Journal of Policy Analysis and Management* 36, no. 2 (2017): 358-89.

Bitler, Marianne, Hilary Hoynes, and Diane Whitmore Schanzenbach. “The Safety Net in the Wake of COVID-19.” National Bureau of Economic Research Working Paper No. 27796, National Bureau of Economic Research, Cambridge, MA, September 2020. https://www.nber.org/papers/w27796.

Bitler, Marianne P., and Lynn A. Karoly. "Intended and Unintended Effects of the War on Poverty: What Research Tells Us and Implications for Policy." *Journal of Policy Analysis and Management* 34, no. 3 (2015): 639-696.

Blank, Rebecca M. "Evaluating Welfare Reform in the United States." *Journal of Economic Literature* 40, no. 4 (2002): 1105-66.

Brady, David, and Amie Bostic. “Paradoxes of Social Policy: Welfare Transfers, Relative Poverty, and Redistribution Preferences.” *American Sociological Review* 80, no. 2 (2015): 268-98.

Brady, David, and Rebekah Burroway. “Targeting, Universalism, and Single-Mother Poverty: A Multilevel Analysis Across 18 Affluent Democracies.” *Demography* 49, no. 2 (2012): 719-46.

Brady, David, Ryan M. Finnigan, and Sabine Hübgen. “Rethinking the Risks of Poverty:

A Framework for Analyzing Prevalences and Penalties." *American Journal of Sociology*, 123, no. 3 (2017): 740-86.

Brady, David, and Zachary Parolin. "The Levels and Trends in Deep and Extreme Poverty in the United States, 1993-2016." *Demography* 57, no. 6 (2020): 2337-60.

Bruch, Sarah K., Marcia K. Meyers, and Janet C. Gornick. " The Consequences of Decentralization: Inequality in Safety Net Provision in the Post-Welfare Reform Era." *Social Service Review* 92, no. 1 (2018): 3-35.

Bruch, Sarah K., and Colin Gordon. "States of Welfare: Decentralization and its Consequences for U.S. Social Policy." In *Handbook of Urban Social Policies*, edited by Yuri Kazepov, Eduardo Barberis, Roberta Cucca, and Elisabetta Mocca, 352-68. Cheltenham: Edward Elgar Publishing, 2022.

Bruch, Sarah K., Janet C. Gornick, and Joseph van der Naald. "Geographic Inequality in Social Provision: Variation across the US States." In *Measuring Distribution and Mobility of Income and Wealth*, edited by Raj Chetty, John N. Friedman, Janet C. Gornick, Barry Johnson and Arthur Kennickell, 499-528. Chicago: University of Chicago Press, 2022.

Burkhauser, Richard V., Kevin Corinth, James Elwell, and Jeff Larrimore. "Evaluating the Success of President Johnson's War on Poverty: Revisiting the Historical Record Using an Absolute Full-Income Poverty Measure." National Bureau of Economic Research Working Paper No. 26532, National Bureau of Economic Research, Cambridge, MA, December 2019. https://www.nber.org/papers/w26532.

Burkhauser, Richard V., and Mary C. Daly. "Social Security Disability Insurance: Time for Fundamental Change*." Journal of Policy Analysis and Management* 31 no. 2 (2012): 454-61.

Carlson, Steven, Dorothy Rosenbaum, and Brynne Keith-Jennings. *Who Are the Low-Income Childless Adults Facing the Loss of SNAP in 2016?* Washington: Center on Budget and Policy Priorities. https://www.cbpp.org/research/food-assistance/who-are-the-low-income-childless-adults-facing-the-loss-of-snap-in-2016.

Caminada, Koen, Kees Goudswaard, Chen Wang, and Jinxian Wang. "Income Inequality and Fiscal Redistribution in 31 Countries After the Crisis." *Comparative Economic Studies* 61, no. 1 (2019): 119-48.

Campbell, Andrea L. *Trapped in America's Safety Net: One Family's Struggle*. Chicago: University of Chicago Press, 2014.

Center on Budget and Policy Priorities. *Policy Basics: Temporary Assistance to Needy Families*. Washington: Center on Budget and Policy Priorities, 2022. https://www.cbpp.org/sites/default/files/atoms/files/7-22-10tanf2.pdf.

Center on Budget and Policy Priorities. *Policy Basics: Public Housing*. Washington: Center on Budget and Policy Priorities, 2021a. https://www.cbpp.org/sites/default/files/atoms/files/policybasics-housing.pdf.

Center on Budget and Policy Priorities. *Policy Basics: The Housing Choice Voucher Program*. Washington: Center on Budget and Policy Priorities, 2021b. https://www.cbpp.org/sites/default/files/atoms/files/PolicyBasics-housing-1-25-13vouch.pdf.

Chang, Yu-Ling, Jennifer Romich, and Marci Ybarra. "Major Means-Tested and Income Support Programs for the Working Class, 2009–2019." *The ANNALS of the American Academy of Political and Social Science* 695, no. 1 (2021): 242-59.

Chen, Wen-Hao, and Miles Corak. "Child Poverty and Changes in Child Poverty." *Demography* 5, no. 3 (2008): 537-53.

Cheng, Tyrone C., and Celia C. Lo. “Explaining Restrictive TANF Policies: Group Threat Hypothesis and State Economy Conditions.” *Journal of Social Service Research* 44, no. 4 (2018): 529-36.

Committee on Ways and Means, U.S. House of Representatives. “Section 4. Supplemental Security Income (SSI).” In *1996 Greenbook: Background Material and Data on Programs within the Jurisdiction of the Committee on Ways and Means*, 257-326. Washington: U.S. Government Printing Office, 1996. https://www.govinfo.gov/app/details/GPO-CPRT-104WPRT23609/.

Conceição, Pedro, *Human Development Report 2019: Beyond Income, Beyond Averages, Beyond Today: Inequalities in Human Development in the 21st Century* (New York, NY: United Nations Development Programme).

Congressional Research Service. *Child Support Enforcement: Program Basics*. Washington: Congressional Research Service, 2019. https://sgp.fas.org/crs/misc/RS22380.pdf.

Congressional Research Service. *The Fundamentals of Unemployment Compensation*. Washington: Congressional Research Service, 2022. https://crsreports.congress.gov/product/pdf/IF/IF10336

Cooney, Patrick, and H. Luke Shaefer. *Material Hardship and Mental Health Following the Covid-19 Relief Bill and American Rescue Plan Act*. Ann Arbor: Poverty Solutions at the University of Michigan, 2021.

Cooney, Patrick, H. Luke Shaefer, and Samiul Jubaed. *Material Hardship and Well-Being of U.S. Households at the End of 2021*. Ann Arbor: Poverty Solutions at the University of Michigan, 2022.

Danziger, Sandra K. “The Decline of Cash Welfare and Implications for Social Policy and Poverty.” *Annual Review of Sociology* 36 (2010): 523-45.

Dolby, Teon, Ashley Burnside, and Whitney Bunts. *EITC for Childless Workers: What's at Stake for Young Workers*. Washington: The Center for Law and Social Policy, 2022.

Duggan, Mark, Melissa A. Kearney, Stephanie Reanne. "The Supplemental Security Income Program." In *Economics of Means-Tested Transfer Programs in the United States*, Vol. 2, edited by Robert A. Moffit, 1-58. Chicago: University of Chicago Press, 2016.

Duncan, Greg, and Suzanne Le Menestrel, eds. *A Roadmap to Reducing Child Poverty. A Roadmap to Reducing Child Poverty*. Washington: The National Academies Press, 2019.

Edin, Kathryn, and Shaefer, H. Luke. *$2.00 a Day: Living on Almost Nothing in America*. Boston: Houghton Mifflin Harcourt, 2015.

Edwards, Mark, Colleen Heflin, Peter Mueser, Suzanne Porter, and Bruce Weber. "The Great Recession and SNAP Caseloads: A Tale of Two States." *Journal of Poverty* 20, no. 3 (2016): 261-277.

Feenberg, Daniel, and Elisabeth Coutts. "An Introduction to the TAXSIM Model." *Journal of Policy Analysis and Management* 12, no. 1 (1993): 189-94.

Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. *Integrated Public Use Microdata Series, Current Population Survey: Version 6.0* [dataset]. Minneapolis: University of Minnesota, 2021. https://doi.org/10.18128/D030.V6.0.

Economic Research Service. *SNAP Policy Database* [dataset]. Washington: U.S. Department of Agriculture, 2022. https://www.ers.usda.gov/data-products/snap-policy-data-sets/.

Floyd, Ife, LaDonna Pavetti, Laura Meyer, Ali Safawi, Liz Schott, Evelyn Bellew, and Abigail Magnus. *TANF Policies Reflect Racist Legacy of Cash Assistance*. Washington: Center on Budget and Policy Priorities, 2021.

Foster, James, Joel Greer, and Erik Thorbecke. “A Class of Decomposable Poverty Measures.” *Econometrica: Journal of the Econometric Society* 52, no. 4 (1984): 761-66.

Fox, Liana, Christopher Wimer, Irwin Garfinkel, Neeraj Kaushal, and Jane Waldfogel. “Waging War on Poverty: Poverty Trends Using a Historical Supplemental Poverty Measure.” *Journal of Policy Analysis and Management* 34, no. 3 (2015): 567-92.

Fraser, Nancy, and Linda Gordon. “Contract versus Charity: Why Is There No Social Citizenship in the United States?” *Socialist Review* 22, no. 3 (1993): 45-68.

Gaines, Alexandra C., Bradley Hardy, and Justin Schweitzer. *How Weak Safety Net Policies Exacerbate Regional and Racial Inequality*. Washington: Center for American Progress, 2021. https://www.americanprogress.org/article/weak-safety-net-policies-exacerbate-regional-racial-inequality/.

Gais, Thomas L. “Stretched Net: The Retrenchment of State and Local Social Welfare Spending Before the Recession.” *Publius: The Journal of Federalism* 39, no. 3 (2009): 557-79.

Ganong, Peter, and Jeffrey B. Liebman. "The Decline, Rebound, and Further Rise in SNAP Enrollment: Disentangling Business Cycle Fluctuations and Policy Changes." *American Economic Journal: Economic Policy* 10, no. 4 (2018): 153-76.

Garner, Thesia I., Marisa Gudrais, and Kathleen Short. “Consistency in Supplemental Poverty Measurement: Adding Imputed In-Kind Benefits to Thresholds and Impact on Poverty Rates for the United States.” Office of Survey Methods Research Statistical Survey Paper, U.S. Bureau of Labor Statistics, October 2015. https://www.bls.gov/osmr/research-papers/2015/st150120.htm.

Gornick, Janet C., and Markus Jäntti. “Child poverty in cross-national perspective: Lessons from the Luxembourg Income Study.” *Children and Youth Services Review* 34, no. 3 (2012): 558-68.

Gornick, Janet C., and Timothy M. Smeeding. “Redistributional Policy in Rich Countries: Institutions and Impacts in Nonelderly Households.” *Annual Review of Sociology* 44 (2018): 441-68.

Granovetter, Mark. “Economic Action and Social Structure: The Problem of Embeddedness.” *American Journal of Sociology* 91, no. 3 (1985): 481-510.

Guillaud, Elvire, Matthew Olckers, and Michaël Zemmour. "Four Levers of Redistribution: The Impact of Tax and Transfer Systems on Inequality Reduction." *Review of Income and Wealth* 66, no. 2 (2020): 444-66.

Hahn, Heather, Laudan Aron, Cary Lou, Eleanor Pratt, and Adaeze Okoli. *Why Does Cash Welfare Depend on Where You Live? How and Why State TANF Programs Vary*. Washington: Urban Institute, 2017. https://www.urban.org/research/publication/why-does-cash-welfare-depend-where-you-live.

Hahn, Heather, Eva Allen, Anuj Gangopadhyaya, Nathan Joo, Genevieve M. Kenney, Diane Levy, Stacey McMorrow, Eleanor Pratt, and Elaine Waxman. *Navigating Work Requirements in Safety Net Programs: Potential Pathways for Parents*. Washington: Urban Institute, 2019. https://www.urban.org/sites/default/files/publication/99479/navigating_work_requirements_in_safety_net_programs_1.pdf.

Halpern-Meekin, Sarah, Kathryn Edin, Laura Tach, and J. Sykes, eds. *It’s Not Like I’m Poor: How Working Families Make Ends Meet in a Post-Welfare World*. Berkeley: University of California Press, 2015.

Eissa, Nada, and Hilary Hoynes. "Redistribution and Tax Expenditures: The Earned Income Tax Credit." *National Tax Journal* 64, no. 2 (2011): 689-729.

Hardy, Bradley L., Rhucha Samudra, and Jourdan A. Davis. "Cash Assistance in America: The Role of Race, Politics, and Poverty." *The Review of Black Political Economy* 46, no. 4 (2019): 306-24.

Hardy, Bradley, Timothy Smeeding, and James P. Ziliak. “The Changing Safety Net for Low Income Parents and Their Children:  Structural or Cyclical Changes in Income Support Policy?” Demography 55, no. 1 (2018): 189-221.

Haveman, Robert, Rebecca Blank, Robert Moffitt, Timothy Smeeding, and Geoffrey Wallace. “The War on Poverty: 50 Years Later.” *Journal of Policy Analysis and Management* 34, no. 3 (2015): 593-638.

Heinrich, Carolyn J., and Joh Karl Scholz, eds. *Making the Work-Based Safety Net Work Better: Forward-Looking Policies to Help Low-Income Families*. New York: Russell Sage Foundation, 2009.

Hemmeter, Jeffrey, John Phillips, Elana Safran, and Nicholas Wilson. “Communicating Program Eligibility: A Supplemental Security Income (SSI) Field Experiment.” Office of Evaluation Sciences, General Services Administration, Washington, DC, November 2020.

Hingtgen, Stephanie, Matt Saenz, and Claire Zippel. *Gaps in Economic Support for Non-Elderly Adults Without Children Continue to Leave Millions in Poverty, Data Show*. Washington: Center on Budget and Policy Priorities, 2021. https://www.cbpp.org/research/poverty-and-inequality/gaps-in-economic-support-for-non-elderly-adults-without-children.

Howard, Christopher. “The American Welfare State, or States?” *Political Research Quarterly* 52, no. 2 (1999): 421–42.

Hoynes, Hilary W., and Ankur J. Patel. "Effective Policy for Reducing Poverty and Inequality? The Earned Income Tax Credit and the Distribution of Income." *Journal of Human Resources* 53, no. 4 (2018): 859-90.

Hoynes, Hillary W., and Diane Whitmore Schanzenbach. “Safety Net Investments in Children.” National Bureau of Economic Research Working Paper No. 24594, National Bureau of Economic Research, Cambridge, MA, May 2018. https://www.nber.org/papers/w24594.

Johnson, Paul D., Trudi Renwick, and Kathleen Short. “Estimating the Value of Federal Housing Assistance for the Supplemental Poverty Measure.” U.S. Census Bureau Social, Economic, and Housing Statistics Division Working Paper No. 2010-13, U.S. Census Bureau, Washington, DC, December 2010. https://cps.ipums.org/cps/resources/spm/SPM_HousingAssistance.pdf.

Jusko, Karen L., and Katherine Weisshaar. “Are We Providing Enough to Those Who Have Too Little? Measuring Poverty Relief.” *Political Science Research and Methods* 7, no. 2 (2019): 331-47.

Katz, Michael B. *The Undeserving Poor: America's Enduring Confrontation with Poverty*. 2nd ed. New York: Oxford University Press, 2013.

Kelly, Paige, and Linda Lobao. "Whose Need Matters?: The Local Welfare State, Poverty, and Variation in U.S. Counties’ Social Service Provisioning." *Social Currents* 8, no. 6 (2021): 566-90.

Kleiman, Ariel J. “Impoverishment by Taxation.” *University of Pennsylvania Law Review* (forthcoming). http://dx.doi.org/10.2139/ssrn.3775246.

Kogan, Vladimir. "Administrative Centralization and Bureaucratic Responsiveness: Evidence from the Food Stamp Program." *Journal of Public Administration Research and Theory* 27, no. 4 (2017): 629-46.

Korpi, Walter, and Joakim Palme. “The Paradox of Redistribution and Strategies of Equality: Welfare State Institutions, Inequality, and Poverty in the Western Countries.” *American Sociological Review* 63, no. 5 (1998): 661–87.

Laird, Jennifer, Zachary Parolin, Jane Waldfogel, and Christopher Wimer. “Poor State, Rich State: Understanding the Variability of Poverty Rates across U.S. States.” *Sociological Science* 5 (2018): 628-652. https://sociologicalscience.com/articles-v5-26-628/.

Larrimore, Jeff, Richard V. Burkhauser, and Philip Armour. “Accounting for Income Changes Over the Great Recession Relative to Previous Recessions: The Impact of Taxes and Transfers.” *National Tax Journal* 68, no. 2 (2015): 281-318.

“Low-Income Heating Assistance Program Clearinghouse.” National Center for Appropriate Technology. Updated August 26, 2022. https://liheapch.acf.hhs.gov/.

Mahler, Vincent A., and David K. Jesuit. "Fiscal Redistribution in the Developed Countries: New Insights from the Luxembourg Income Study." *Socio-Economic Review* 4, no. 3 (2006): 483-511.

Marr, Chuck, and Yixuan Huang. *Childless Adults Are Lone Group Taxed into Poverty EITC Expansion Could Address Problem*. Washington: Center on Budget and Policy Priorities, 2020. https://www.cbpp.org/sites/default/files/atoms/files/3-2-16tax.pdf.

Martin, Isaac W., and Monica Prasad. "Taxes and Fiscal Sociology." *Annual Review of Sociology* 40 (2014): 331-45.

Matsudaira, Jordan D., and Rebecca M. Blank. "The Impact of Earnings Disregards on the Behavior of Low-income Families." *Journal of Policy Analysis and Management* 33, no. 1 (2014): 7-35.

McGuire, Therese J., and David F. Merriman. “State Spending on Social Assistance Programs over the Business Cycle.” In *Working and Poor: How Economic and Policy Changes Are Affecting Low-Wage Workers*, edited by Rebecca M. Blank, Sheldon H. Danziger, and Robert F. Schoeni, 289-311. New York: Russell Sage Foundation, 2016.

Meyer, Bruce D., and Dan T. Rosenbaum. "Welfare, The Earned Income Tax Credit, and the Labor Supply of Single Mothers." *The Quarterly Journal of Economics* 116, no. 3 (2001): 1063-1114.

Meyer, Bruce D., and Nikolas Mittag. “Using Linked Survey and Administrative Data to Better Measure Income: Implications for Poverty, Program Effectiveness, and Holes in the Safety Net.” *American Economic Journal: Applied Economics* 11, no. 2 (2019): 176-204.

Meyer, Bruce D., Wallace KC Mok, and James X. Sullivan. “The Under-Reporting of Transfers in Household Surveys: Its Nature and Consequences.” National Bureau of Economic Research Working Paper No. 15181, National Bureau of Economic Research, Cambridge, MA, July 2009. https://www.nber.org/papers/w15181.

Meyers, Marcia K., Janet C. Gornick, and Laura R. Peck. “Packaging Support for Low-Income Families: Policy Variation across the United States.” *Journal of Policy Analysis and Management* 20, no. 3 (2001): 457–83.

Moffitt, Robert A. "The Great Recession and the Social Safety Net." *The ANNALS of the American Academy of Political and Social Science* 650, no. 1 (2013): 143-66.

Moffitt, Robert A. “The Deserving Poor, the Family, and the U.S. Welfare System.” *Demography* 52, no. 3 (2015): 729-49.

Moffitt, Robert A., and James P. Ziliak. "COVID-19 and the U.S. Safety Net." *Fiscal Studies* 41, no. 3 (2020): 515-48.

Murphy, Griffin T., Jay Patel, Leslie I. Boden, and Jennifer Wolf. *Workers’ Compensation Benefits, Costs, and Coverage*. Washington: National Academy of Social Insurance, 2021.

National Research Council. *Measuring Poverty: A New Approach*. Washington: The National Academies Press, 1995. https://doi.org/10.17226/4759.

National Research Council. *Experimental Poverty Measures: Summary of a Workshop*. Washington: The National Academies Press, 2005. https://doi.org/10.17226/11166.

Newman, Katherine S., Rourke O'Brien. *Taxing the Poor: Doing Damage to the Truly Disadvantaged*. Berkeley: University of California Press, 2011.

O'Brien, Rourke L. "Redistribution and the New Fiscal Sociology: Race and the Progressivity of State and Local Taxes." *American Journal of Sociology* 122, no. 4 (2017): 1015-49.

O'Hara, Amy. "New Methods for Simulating CPS Taxes." U.S. Census Bureau Working Papers, Washington, DC, U.S. Census Bureau, December 2004. https://www.census.gov/content/dam/Census/library/working-papers/2004/demo/oharataxmodel.pdf.

O'Neill, Martin. "Power, Predistribution, and Social Justice." *Philosophy* 95, no. 1: (2020) 63-91.

Oliff, Phil, Chris Mai, and Nicholas Johnson. *The Impact of State Income Taxes on Low-Income Families in 2011*. Washington: Center on Budget and Policy Priorities, 2012.

Organisation of Economic Cooperation and Development. *Growing Unequal? Income Distribution and Poverty in OECD Countries*. Paris: Organisation for Economic Co-operation and Development, 2008. https://doi.org/10.1787/9789264044197-en.

Pac, Jessica, Irwin Garfinkel, Neeraj Kaushal, Jaehyun Nam, Laura Nolan, Jane Waldfogel, and Christopher Wimer. "Reducing Poverty among Children: Evidence from State Policy Simulations." *Children and Youth Services Review* 115 (2020): 1-12.

Pac, Jessica, Jaehyun Nam, Jane Waldfogel, and Chris Wimer. "Young Child Poverty in the United States: Analyzing Trends in Poverty and the Role of Anti-Poverty Programs using the Supplemental Poverty Measure." *Children and Youth Services Review* 74 (March 2017a): 35–49.

Pac, Jessica, Jane Waldfogel, and Christopher Wimer. "Poverty Among Foster Children: Estimates Using the Supplemental Poverty Measure." *Social Service Review* 91, no. 1 (2017b): 8-40.

Parolin, Zachary. "Temporary Assistance for Needy Families and the Black–White Child Poverty Gap in the United States." *Socio-Economic Review* 19, no. 3 (2021): 1005-35.

Parolin, Zachary. “Decomposing the Decline of Cash Assistance in the United States, 1993 to 2016.” *Demography* 58, no. 3 (2021): 1119-41.

Parolin, Zachary. “The Effect of Benefit Underreporting on Estimates of Poverty in the United States.” *Social Indicators Research* 144, no. 2 (2019): 869-98.

Parolin, Zachary, and David Brady. "Extreme Child Poverty and the Role of Social Policy in the United States." *Journal of Poverty and Social Justice* 27, no. 1 (2019): 3-22.

Parolin, Zachary, and Janet C. Gornick. "Pathways Toward Inclusive Income Growth: A Comparative Decomposition of National Growth Profiles." *American Sociological Review* 86, no. 6 (2021): 1131-63.

Parolin, Zachary, and Megan A. Curran. *Expanded Child Tax Credit Leads to Further Decline in Child Poverty in August 2021*, Poverty and Social Policy Fact Sheet. New York: Center on Poverty & Social Policy at Columbia University, 2021.

Parolin, Zachary, and Rosa Daiger von Gleichen. “Family Policy in the United States: State-Level Variation in Policy and Poverty Outcomes from 1980 to 2015.” In *The Palgrave Handbook of Family Policy*, edited by Wim Van Lancker and Rense Nieuwenhuis, 459-83. London: Palgrave, 2020.

Parolin, Zachary, Megan Curran, Jordan Matsudaira, Jane Waldfogel, and Christopher Wimer. "Estimating Monthly Poverty Rates in the United States." *Journal of Policy Analysis and Management* (2022). https://doi.org/10.1002/pam.22403.

Pierson, Paul. “Fragmented Welfare States: Federal Institutions and the Development of Social Policy.” *Governance* 8, no. 4 (1995): 449-78.

Rainwater, Lee, and Timothy Smeeding. *Poor Kids in a Rich Country: America's Children in Comparative Perspective*. New York: Russell Sage Foundation, 2003.

Reynolds, Megan M., Ashley M. Fox, and Yvette Young. "State-Level Social Safety Nets for Families Coping with Job Loss." *Poverty & Public Policy* 13, no. 2 (2021): 121-38.

Schechtl, Manuel, and Rourke L. O'Brien. "Fiscal Impoverishment in Rich Democracies." LIS Working Paper No. 831, Luxembourg Income Study, Esch-Belval, Luxembourg, March 2022. http://www.lisdatacenter.org/wps/liswps/831.pdf.

Schneider, Anne, and Helen Ingram. "Social Construction of Target Populations: Implications for Politics and Policy." *American Political Science Review* 87, no. 2 (1993): 334-347.

Shaefer, H. Luke, and Kathryn Edin. "Rising Extreme Poverty in the United States and the Response of Federal Means-Tested Transfer Programs." *Social Service Review* 87, no. 2 (2013): 250-68.

Shaefer, H. Luke, Kathryn Edin, Vincent Fusaro, and Pinghui Wu. "The Decline of Cash Assistance and the Well-Being of Poor Households with Children." *Social Forces* 98, no. 3 (2020): 1000-25.

Schott, Liz. *State General Assistance Programs Very Limited in Halt the States and Nonexistent in Others, Despite Need*. Washington: Center on Budget and Policy Priorities, 2020. https://www.cbpp.org/sites/default/files/atoms/files/7-9-15pov.pdf.

Sevak, Purvi, and Steven Bruns. *What Have We Learned About SSI Receipt Among Children*. Washington: Mathematica Policy Research, 2018. https://www.mathematica.org/publications/what-have-we-learned-about-ssi-receipt-among-children.

Shorrocks, Anthony F. "Decomposition Procedures for Distributional Analysis: A Unified Framework Based on the Shapley Value." *Journal of Economic Inequality* 11, no. 1 (2013): 99-126.

Soss, Joe, and Lael R. Keiser. "The Political Roots of Disability Claims: How State Environments and Policies Shape Citizen Demands." *Political Research Quarterly* 59, no. 1 (2006): 133-48.

Soss, Joe, Richard C. Fording, Sanford F. Schram. *Disciplining the Poor: Neoliberal Paternalism and the Persistent Power of Race*. Chicago: University of Chicago Press, 2011.

Steensland, Brian. "Cultural Categories and the American Welfare State: The Case of Guaranteed Income Policy." *American Journal of Sociology* 111, no. 5 (2006): 1273-1326.

Stevens, Kathryn, Liana E. Fox, and Misty L. Heggeness, "Precision in Measurement: Using State-level SNAP Administrative Records and the Transfer Income Model (TRIM3) to Evaluate Poverty Measurement." U.S. Census Bureau Social, Economic, and Housing Statistics Division Working Paper No. 2018-15, Washington, DC, U.S. Census Bureau, April 2018. https://www.census.gov/content/dam/Census/library/working-papers/2018/demo/SEHSD-WP2018-15.pdf.

Sullivan, James X. "A Cautionary Tale of Using Data from the Tail." *Demography* 57, no. 6 (2020): 2361-68.

US Bureau of the Census. *Measuring the Effect of Benefits and Taxes on Income and Poverty: 1992*, Current Population Reports, Series P60-186RD. Washington: U.S. Government Printing Office, 1993.

US Department of Agriculture. "The Community Eligibility Provision (CEP) What Does It Mean For Your School or Local Educational Agency?" Updated April 2015. https://fns-prod.azureedge.us/sites/default/files/cn/CEPfactsheet.pdf.

US Department of Agriculture. "The National School Lunch Program Fact Sheet." Updated November 2017. https://fns-prod.azureedge.us/sites/default/files/resource-files/NSLPFactSheet.pdf.

US Department of Agriculture. “A Short History of SNAP.” Updated September 11, 2018. https://www.fns.usda.gov/snap/short-history-snap.

US Department of Housing and Human Services. *The Child SSI Program and the Changing Safety Net: Pathways to SSI*. Washington: Office of Human Services Policy, 2015. https://aspe.hhs.gov/sites/default/files/private/pdf/163046/ChildSSI.pdf.

US Office of Management and Budget. *Final Report of the Interagency Technical Working Group on Evaluating Alternative Measures of Poverty*. Washington: U.S. Office of Management and Budget, 2021.

US Social Security Administration. *A Guide to Supplemental Security Income (SSI) for Groups and Organizations*. Publication No. 05-11015. Washington: U.S. Government Printing Office, 2022.

Wheaton, Laura. *Underreporting of Means-tested Transfer Programs in the CPS and SIPP*. Washington: The Urban Institute, 2008.

Wheaton, Laura, and Kathryn Stevens. *The Effect of Different Tax Calculators on the Supplemental Poverty Measure*. Washington: The Urban Institute, 2016.

Williams, Erica, Samantha Waxman, and Juliette Legendre. *How Much Would a State Earned Income Tax Credit Cost in Fiscal Year 2021?* Washington: Center on Budget and Policy Priorities, 2020.

Wimer, Christopher, Liana Fox, Irwin Garfinkel, Neeraj Kaushal, and Jane Waldfogel. “Progress on Poverty? New Estimates of Historical Trends Using an Anchored Supplemental Poverty Measure.” *Demography* 53, no. 4 (2016): 1207-18.

Wimer, Christopher, Zachary Parolin, Anny Fenton, Liana Fox, and Christopher Jencks. “The Direct Effect of Taxes and Transfers on Changes in the U.S. Income Distribution, 1967–2015.” *Demography* 57, no. 5 (2020): 1833-51.

Zedlewski, Sheila, and Linda Giannarelli. *TRIM: A Tool for Social Policy Analysis.* Washington: The Urban Institute, 2015.

Ziliak, James P, ed. *Welfare Reform and Its Long-Term Consequences for America's Poor*. Cambridge: Cambridge University Press, 2009.

Table 1. ASEC Income Components

| **Market Income** | |
|---|---|
| wage and salary | rent, royalties, estate, and trust income |
| self-employment earnings | interest |
| farm income | dividends |
| retirement [a] | friend/family financial assistance |
| survivor pensions [b] | alimony |
| disability pensions [b] | interest from retirement accounts |
| annuities [a] | other income not otherwise classified [c] |

| **Federal Transfers** | **State Transfers** |
|---|---|
| Old Age, Survivors, and Disability Insurance Program (OASDI) [d] | Temporary Assistance for Needy Families (TANF) [f] |
| | Unemployment Insurance |
| veterans' benefits [e] | General Assistance [g] |
| | Workers' Compensation |
| | Supplemental Security Income [h] |
| | child support |
| | Supplemental Nutrition Assistance Program (SNAP) [i] |
| | school lunch subsidy [i j] |
| | housing subsidy [i k] |
| | energy assistance [i l] |

| **Federal Taxes [m]** | **State Taxes [m]** |
|---|---|
| *Liabilities* | *Liabilities* |
| Income tax liability | Income tax payments |
| FICA | |
| *Credits* | *Credits* |
| Earned income tax credit | State earned income tax credit |
| Child credit | Property credit |
| Child care tax credit | State child care and other tax credits |

[a] Sources of retirement income in this component include all those from a past employer or from a labor union (including pensions, individual retirement accounts, and annuities), as well as those from profit sharing mechanisms, retirement income from the United States military, pensions from employment by the federal, state, or local government, and the United States Railroad Retirement program. Not included in this component are any payments from the Old Age, Survivors, and Disability Insurance program (OASDI), nor any payments from the Veterans' Administration. Both are reported separately and are classified as federal transfers.

There is active debate regarding the placement of contributory benefits such as old-age pensions and unemployment benefits. Some analysts argue that some or all contributory benefits should be allocated to "market income" because they are, arguably, deferred wages. We acknowledge the logic of considering contributory transfers as market income. However, in this study, we follow what is still the dominant approach in this area of research: we place all state-administered transfers (contributory or not) in "post-fisc" or disposable income. For a good synopsis of this debate, see "Measuring Inequality in Income and Wealth" chapter in the 2019 Human Development Report's "Beyond Income, Beyond Averages, Beyond Today: Inequalities in Human Development in the 21st Century".

[b] Disability and survivor income excludes any payments from the Old Age, Survivors, and Disability Insurance program (OASDI) and any payments from the Veterans' administration, which are included under their respective components as federal transfers, as well as any survivor disability benefits income from Workers' Compensation programs, which are included under state transfers.

[c] Though "other" income can also be derived from a variety of both market and non-market sources, we choose here to treat all "other" income as market income because most households that report income that is classified this way indicate the income is from market or private sources. A small number of households in any given year of the CPS report income non-market "other" income but this is infrequent, and the amounts are typically relatively small.

[d] OASDI is composed of income from the Social Security Administration's pension, survivors' benefits, and permanent disability insurance payments.

[e] Veteran's benefits are composed of payments made by the Veterans' Administration for disability compensation, survivors' benefits, veteran's pension benefits, and educational assistance.

[f] TANF is composed of income from Temporary Assistance for Needy Families cash assistance payments. Prior to 1997, this income component comprised cash assistance payments from the Aid to Families with Dependent Children (AFDC) program. The question posed to respondents inquires as to whether anyone in the household received cash assistance from any state or county welfare program, but the Census income measure only includes income reported as being received from welfare or welfare to work, TANF (or state program names), or AFDC.

[g] General assistance is composed of cash assistance from other non-TANF or AFDC sources. The question posed to respondents inquires as to whether anyone in the household received cash assistance from any state or county welfare program, but the Census income measure only includes income reported as being received from non-TANF or AFDC sources which include state-level general assistance programs, Emergency Assistance/short-term cash assistance, Diversion Payments, Refugee Cash and Medical Assistance programs, general assistance from Bureau of Indian Affairs, or Tribal Administered General Assistance. For additional information on how this component is calculated and disaggregated from TANF and AFDC, see the Benefit Underreporting Data, Measures, and Analysis section of the Appendix.

[h] Supplemental Security Income (SSI) encompasses cash transfer payments to adults and children with eligible disabilities or vision impairments, as well as individuals aged 65 and above, whose income falls below a defined income eligibility guideline.

[i] Reported at the household level.

[j] School lunch subsidies are composed of the total household value of in-kind benefits provided to needy children through the National School Lunch Program. The value of school lunch subsidies is imputed by the Census Bureau and can encompass either free or reduced hot lunches served to children whose household income falls beneath a federally-defined income eligibility threshold. For additional information, see the School Lunch and Housing Assistance Value Imputation Details section of the Appendix.

[k] Housing subsidies are composed of the total household value of rental assistance programs, and can encompass either the value of public housing, rental subsidies from the Section 8 Housing Choice Voucher Program, or other rental subsidies provided by state and local programs. This value is imputed by the Census Bureau. For additional information, see the School Lunch and Housing Assistance Value Imputation Details section of the Appendix.

[l] Energy subsidies are composed of the total household value of assistance received from the Federal Low-Income Home Energy Assistance Program, providing financial assistance to qualified households to help defray heating and cooling costs. Prior to 2011, interviewers only inquired about the value of energy assistance associated with heating subsidies, and only asked households to estimate the value of energy assistance received between October 1 of the prior year and their March interview. After 2011, the interviewer questionnaire shifted to inquire about the value of both heating and cooling energy assistance received by the household during the entire prior year.

[m] Derived from NBER's TAXSIM program apart from FICA, which is derived from the Census' tax calculator.

Table 2. Categorization of State Transfer Programs by Levels of State Discretion

| | *Financing* | *Rule-Making* | *Administration* |
|---|---|---|---|
| General Assistance | High | High | High |
| Workers' Compensation | High | High | High |
| Temporary Assistance to Needy Families | High | High | High |
| Child Support | Medium | Medium | High |
| Unemployment Insurance | Medium | Medium | Medium |
| Low-Income Home Energy Assistance Program | Low | Medium | High |
| Public Housing and Rental Subsidies | Low | Medium | High |
| Supplemental Nutrition Assistance Program | Low | Low | Medium |
| National School Lunch Program | Low | Low | Medium |
| Supplemental Security Income | Low | Low | Low |

Note: Low=limited state discretion; High=a great deal of state discretion. Authors' coding based on program design features distributing federal, state, and local government responsibilities and authority.

Table 3. Poverty Reduction by Policy Mechanism and Household Type, 2016

| Household Type | Market Income Poverty | Poverty Reduction Attributable to | | | | | Overall Poverty Reduction | Disposable Income Poverty |
|---|---|---|---|---|---|---|---|---|
| | | | Federal Taxes | | | | | |
| | | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | | |
| Working-Age Households with Children | | | | | | | | |
| | 0.169 | | | | | | | 0.069 |
| *Absolute Reduction* | | 0.015 | 0.044 | -0.019 | 0.058 | 0.002 | 0.100 | |
| *% Total Absolute Poverty Reduction* | | 14.8% | 44.0% | -19.1% | 58.7% | 1.6% | | |
| *Relative Reduction* | | 8.7% | 25.8% | -11.2% | 34.5% | 0.9% | 58.7% | |
| *Average Value* | | $15,905 | $5,309 | -$2,091 | $9,568 | $553 | | |
| *% Market Poor HHs Receiving* | | 17.8% | | | 97.5% | | | |
| Working-Age Households without Children | | | | | | | | |
| | 0.183 | | | | | | | 0.129 |
| *Absolute Reduction* | | 0.046 | -0.001 | -0.011 | 0.021 | -0.001 | 0.054 | |
| *% Total Absolute Poverty Reduction* | | 86.6% | -2.8% | -21.5% | 38.7% | -1.3% | | |
| *Relative Reduction* | | 25.2% | -0.4% | -6.2% | 11.2% | -0.8% | 29.0% | |
| *Average Value* | | $16,142 | $228 | -$1,130 | $5,275 | $96 | | |
| *% Market Poor HHs Receiving* | | 40.8% | | | 66.5% | | | |

*Note:* The calculations included in this table use a three-year moving average (2015-2017) and include the TRIM3 benefit under-reporting adjustments for state transfers (SSI, TANF, and SNAP). See Appendix Table A1 for the unadjusted estimates. Market and disposable income poverty calculations are the proportion of each household type in poverty using each income definition. Absolute poverty reductions are calculated as the difference between market and disposable income and the share (percentage) of this overall poverty reduction attributable to each mechanism. Relative reductions are calculated as the percentage of market income poverty reduced overall and attributable to each mechanism. Average values are the average, non-zero dollar amounts paid or received from each mechanism by market income poor households, and are inflation-adjusted to 2016 dollars using the CPI-U-RS. Tax values are net of all credits and liabilities. Percent of market poor households receiving are the percentages of these households who receive income from each source.

Table 4. Recipiency and Average Value of Transfers by Household Type, 1996-2016

| Household Type | Federal Transfers | | | | | State Transfers | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OASDI | Veterans' Benefits | Unemployment Insurance | Workers' Compensation | Child Support | Supplemental Security Income | SNAP | TANF | General Assistance | Housing Subsidy | School Lunch Subsidy | Energy Assistance |
| Working-Age Households w/ Children | | | | | | | | | | | | |
| 1996 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 14.83% | 1.14% | 9.38% | 2.94% | 17.08% | 18.52% | 71.76% | 53.81% | 4.96% | 23.24% | 67.14% | 15.83% |
| *Average Value* | $12,541.96 | $13,762.12 | $ 4,583.49 | $10,377.39 | $3,954.82 | $7,867.13 | 4,430.92 | $5,810.16 | $5,297.85 | $3,843.95 | $886.64 | $307.84 |
| 2000 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 14.61% | 1.42% | 7.43% | 2.68% | 16.89% | 19.12% | 61.21% | 39.12% | 4.77% | 25.78% | 68.83% | 12.78% |
| *Average Value* | $13,171.28 | $14,844.63 | $4,362.20 | $9,272.73 | $4,328.11 | $7,873.17 | $3,749.07 | $4,698.77 | $4,923.49 | $3,651.42 | $872.35 | $340.50 |
| 2004 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 15.02% | 1.29% | 10.44% | 2.76% | 19.25% | 19.61% | 67.52% | 28.50% | 3.41% | 22.06% | 65.52% | 12.02% |
| *Average Value* | $13,636.10 | $17,257.61 | $6,326.47 | $13,204.07 | $5,071.27 | $8,012.59 | $3,969.46 | $4,184.46 | $4,467.76 | $3,713.83 | $861.51 | $392.83 |
| 2008 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 16.30% | 1.10% | 7.39% | 1.66% | 18.47% | 20.76% | 77.64% | 23.87% | 3.14% | 20.87% | 66.41% | 13.51% |
| *Average Value* | $14,781.73 | $21,219.81 | $5,469.00 | $12,565.98 | $5,293.54 | $8,429.76 | $4,132.01 | $3,948.12 | $4,586.43 | $3,566.68 | $829.72 | $444.45 |
| 2012 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 14.65% | 1.29% | 14.88% | 1.26% | 17.35% | 19.72% | 88.74% | 22.41% | 2.93% | 18.55% | 68.52% | 15.48% |
| *Average Value* | $14,177.25 | $17,642.17 | $9,088.31 | $12,193.35 | $5,120.80 | $8,412.94 | $5,531.50 | $3,647.70 | $3,911.95 | $3,591.02 | $890.89 | $471.91 |
| 2016 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 16.61% | 1.90% | 4.82% | 1.39% | 16.80% | 19.99% | 89.25% | 17.40% | 3.13% | 18.93% | 70.44% | 14.89% |
| *Average Value* | $14,833.72 | $19,151.18 | $4,995.85 | $17,400.79 | $4,671.91 | $8,962.26 | $4,992.92 | $3,821.01 | $3,952.89 | $3,564.61 | $1,006.89 | $445.45 |
| Working-Age Households w/out Children | | | | | | | | | | | | |
| 1996 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 36.53% | 4.09% | 5.54% | 3.49% | 0.71% | 21.57% | 29.71% | 0.39% | 5.07% | 14.80% | 0.86% | 9.90% |
| *Average Value* | $12,721.87 | $11,529.63 | $5,116.01 | $11,957.00 | $3,165.82 | $7,434.27 | $1,480.04 | $4,683.46 | $3,928.87 | $3,233.49 | $392.88 | $270.89 |
| 2000 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 38.88% | 3.92% | 3.75% | 2.49% | 0.44% | 23.86% | 33.78% | 0.47% | 2.43% | 16.69% | 0.93% | 8.42% |
| *Average Value* | $13,343.16 | $14,754.29 | $5,431.70 | $16,378.59 | $5,588.15 | $7,698.83 | $1,106.37 | $3,473.33 | $3,614.80 | $3,212.82 | $405.81 | $332.03 |
| 2004 | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *% Market Poor HHs Receiving* | 38.15% | 4.08% | 6.28% | 2.25% | 0.76% | 20.00% | 37.66% | 0.30% | 1.51% | 14.67% | 0.78% | 7.98% |
| *Average Value* | $14,208.45 | $16,843.50 | $7,643.26 | $14,552.07 | $3,578.11 | $7,832.91 | $1,125.98 | $3,994.89 | $2,533.95 | $3,160.61 | $369.29 | $354.89 |
| 2008 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 39.65% | 4.14% | 4.29% | 1.83% | 0.85% | 21.13% | 45.21% | 0.29% | 1.32% | 15.13% | 0.94% | 9.53% |
| *Average Value* | $15,415.29 | $18,039.38 | $7,013.19 | $17,557.96 | $3,634.84 | $7,538.72 | $1,179.12 | $3,493.67 | $2,746.42 | $3,048.77 | $382.61 | $411.69 |
| 2012 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 37.20% | 4.04% | 11.01% | 1.60% | 0.92% | 20.10% | 58.68% | 0.23% | 1.41% | 14.60% | 1.15% | 11.37% |
| *Average Value* | $15,426.19 | $17,342.05 | $10,873.16 | $13,382.37 | $4,338.86 | $7,620.81 | $2,054.18 | $3,092.52 | $2,186.22 | $2,936.90 | $421.88 | $401.32 |
| 2016 | | | | | | | | | | | | |
| *% Market Poor HHs Receiving* | 39.15% | 3.49% | 3.08% | 1.28% | 0.78% | 21.27% | 57.56% | 0.20% | 1.41% | 15.60% | 1.31% | 12.04% |
| *Average Value* | $15,260.51 | $17,574.58 | $6,612.90 | $20,840.42 | $3,776.29 | $7,776.41 | $1,859.61 | $2,881.45 | $3,769.33 | $2,994.18 | $515.92 | $402.75 |

*Note*: The calculations included in this table are three-year moving averages apart from the housing subsidy and school lunch values for 2004, which are an average of years 2003 and 2005 only, as these variables are unavailable in the original Current Population Survey data for the year 2004, and the housing subsidy value for 2016, which is a one-year average of 2015 only, because beginning in 2016 the Current Population Survey ceased collecting data on housing subsidy. All calculations include the TRIM3 benefit under-reporting adjustments for state transfers (SSI, TANF, and SNAP) and average values are inflation-adjusted to 2016 dollars using the CPI-U-RS. Average values are the average dollar amounts received from transfers (excluding households that received $0) by households whose market income is below the poverty line. Percentage recipiency indicates the percentage of households that receive a non-zero value for a transfer.

Table 5. Federal and State Taxes, Paying, Neither Paying nor Receiving, Receiving, by Household Type, 1996-2016

| | Federal Income Taxes | | | FICA | State Income Taxes | | |
|---|---|---|---|---|---|---|---|
| | % Net Payers | % Neither Paying nor Receiving | % Net Receiving Income | % Net Payers | % Net Payers | % Neither Paying nor Receiving | % Net Receiving Income |
| Working Age Households with Children | | | | | | | |
| *1996* | 0.4% | 36.7% | 62.9% | 63.4% | 10.4% | 74.0% | 15.6% |
| *2000* | 0.1% | 29.4% | 70.5% | 70.9% | 9.1% | 70.9% | 19.9% |
| *2004* | 0.1% | 33.7% | 66.2% | 66.6% | 8.5% | 67.8% | 23.6% |
| *2008* | 0.0% | 23.5% | 76.5% | 64.7% | 6.7% | 63.0% | 30.3% |
| *2012* | 0.5% | 37.3% | 62.1% | 62.4% | 6.4% | 65.8% | 27.8% |
| *2016* | 0.1% | 36.9% | 63.0% | 63.3% | 5.1% | 66.0% | 28.9% |
| Working Age Households without Children | | | | | | | |
| *1996* | 6.5% | 65.3% | 28.2% | 41.3% | 10.3% | 75.1% | 14.6% |
| *2000* | 5.4% | 71.1% | 23.5% | 35.6% | 9.0% | 75.4% | 15.6% |
| *2004* | 5.9% | 71.2% | 22.9% | 33.5% | 9.5% | 74.3% | 16.2% |
| *2008* | 4.8% | 48.6% | 46.6% | 32.2% | 7.6% | 74.4% | 18.0% |
| *2012* | 8.6% | 67.8% | 23.6% | 31.5% | 9.8% | 75.5% | 14.7% |
| *2016* | 4.2% | 75.0% | 20.8% | 28.6% | 7.5% | 77.5% | 15.0% |

*Note:* Percentages may not sum to totals due to rounding. Each percentage represents the proportion of market income poor households that either pay tax liabilities, receive income from tax credits, or neither pay nor receive taxes. Net payer households possess federal or state tax values that are negative, in which case the sum of liabilities exceeds those of credits, while households that receive income have positive federal or state tax values, in which case the sum of credits exceeds liabilities. Unlike federal and state income taxes, FICA taxes do not possess a credit component. We therefore only provide rates of FICA payment in this table.

Table 6. Poverty Reduction by Policy Mechanism and Household Type, 1996-2016 (Selected Years)

| Household Type | Market Income Poverty | Poverty Reduction Attributable to | | | | | Overall Poverty Reduction | Disposable Income Poverty |
|---|---|---|---|---|---|---|---|---|
| | | | Federal Taxes | | | | | |
| | | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | | |
| Working-Age Households with Children | | | | | | | | |
| 1996 | 0.200 | | | | | | | 0.116 |
| *Absolute Reduction* | | 0.013 | 0.028 | -0.025 | 0.068 | 0.000 | 0.084 | |
| *% Total Absolute Poverty Reduction* | | 15.2% | 33.3% | -30.1% | 82.1% | -0.6% | | |
| *Relative Reduction* | | 8.3% | 13.8% | -12.5% | 34.0% | -0.2% | 41.4% | |
| *Average Value* | | $12,998 | $2,778 | -$1,835 | $11,646 | $139 | | |
| *% Market Poor HHs Receiving* | | 15.5% | | | 94.5% | | | |
| 2000 | 0.171 | | | | | | | 0.100 |
| *Absolute Reduction* | | 0.011 | 0.032 | -0.023 | 0.051 | 0.000 | 0.071 | |
| *% Total Absolute Poverty Reduction* | | 15.8% | 44.6% | -32.4% | 71.8% | 0.2% | | |
| *Relative Reduction* | | 6.6% | 18.5% | -13.4% | 29.8% | 0.1% | 41.5% | |
| *Average Value* | | $13,831 | $3,320 | -$1,903 | $9,483 | $251 | | |
| *% Market Poor HHs Receiving* | | 15.4% | | | 92.7% | | | |
| 2004 | 0.152 | | | | | | | 0.078 |
| *Absolute Reduction* | | 0.012 | 0.034 | -0.021 | 0.048 | 0.001 | 0.074 | |
| *% Total Absolute Poverty Reduction* | | 16.2% | 46.8% | -32.4% | 65.4% | 0.8% | | |
| *Relative Reduction* | | 7.8% | 22.6% | -14.1% | 31.6% | 0.4% | 48.3% | |
| *Average Value* | | $14,456 | $3,730 | -$2,006 | $9,597 | $327 | | |
| *% Market Poor HHs Receiving* | | 15.7% | | | 89.3% | | | |
| 2008 | 0.152 | | | | | | | 0.65 |
| *Absolute Reduction* | | 0.014 | 0.036 | -0.020 | 0.053 | 0.001 | 0.084 | |
| *% Total Absolute Poverty Reduction* | | 16.2% | 43.4% | -24.2% | 62.9% | 1.4% | | |
| *Relative Reduction* | | 9.0% | 23.7% | -13.3% | 34.4% | 0.8% | 54.7% | |
| *Average Value* | | $15,759 | $3,478 | -$2,044 | $9,465 | $402 | | |
| *% Market Poor HHs Receiving* | | 16.8% | | | 95.2% | | | |
| 2012 | 0.189 | | | | | | | 0.064 |
| *Absolute Reduction* | | 0.015 | 0.045 | -0.018 | 0.082 | 0.001 | 0.125 | |
| *% Total Absolute Poverty Reduction* | | 11.6% | 36.1% | -14.4% | 65.7% | 1.1% | | |
| *Relative Reduction* | | 7.7% | 24.0% | -9.6% | 43.7% | 0.7% | 66.5% | |
| *Average Value* | | $15,214 | $5,243 | -$1,871 | $11,730 | $457 | | |
| *% Market Poor HHs Receiving* | | 15.4% | | | 98.4% | | | |
| 2016 | 0.169 | | | | | | | 0.069 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Absolute Reduction* | | 0.015 | 0.044 | -0.019 | 0.058 | 0.002 | 0.100 | |
| *% Total Absolute Poverty Reduction* | | 14.8% | 44.0% | -19.1% | 58.7% | 1.6% | | |
| *Relative Reduction* | | 8.7% | 25.8% | -11.2% | 34.5% | 0.9% | 58.7% | |
| *Average Value* | | $15,905 | $5,309 | -$2,091 | $9,568 | $553 | | |
| *% Market Poor HHs Receiving* | | 17.8% | | | 97.5% | | | |
| Working-Age Households without Children | | | | | | | | |
| 1996 | 0.138 | | | | | | | 0.103 |
| *Absolute Reduction* | | 0.032 | -0.003 | -0.013 | 0.020 | -0.001 | 0.035 | |
| *% Total Absolute Poverty Reduction* | | 91.6% | -7.9% | -38.3% | 57.0% | -2.5% | | |
| *Relative Reduction* | | 22.8% | -2.0% | -9.5% | 14.2% | -0.6% | 24.9% | |
| *Average Value* | | $13,221 | $171 | -$1,041 | $6,778 | $97 | | |
| *% Market Poor HHs Receiving* | | 38.7% | | | 51.8% | | | |
| 2000 | 0.138 | | | | | | | 0.101 |
| *Absolute Reduction* | | 0.032 | -0.001 | -0.012 | 0.019 | -0.001 | 0.037 | |
| *% Total Absolute Poverty Reduction* | | 87.4% | -3.7% | -33.1% | 50.9% | -3.7% | | |
| *Relative Reduction* | | 23.2% | -1.0% | -8.8% | 13.5% | -0.4% | 26.6% | |
| *Average Value* | | $14,192 | $220 | -$1,018 | $6,405 | $106 | | |
| *% Market Poor HHs Receiving* | | 40.6% | | | 55.3% | | | |
| 2004 | 0.152 | | | | | | | 0.110 |
| *Absolute Reduction* | | 0.038 | -0.001 | -0.012 | 0.018 | -0.001 | 0.042 | |
| *% Total Absolute Poverty Reduction* | | 89.5% | -3.1% | -28.0% | 43.2% | -1.5% | | |
| *Relative Reduction* | | 24.9% | -0.9% | -7.8% | 12.0% | -0.4% | 27.8% | |
| *Average Value* | | $15,289 | $173 | -$1,046 | $5,914 | $102 | | |
| *% Market Poor HHs Receiving* | | 40.0% | | | 54.6% | | | |
| 2008 | 0.149 | | | | | | | 0.101 |
| *Absolute Reduction* | | 0.042 | -0.001 | -0.012 | 0.019 | -0.001 | 0.048 | |
| *% Total Absolute Poverty Reduction* | | 87.1% | -1.7% | -24.6% | 40.2% | -1.1% | | |
| *Relative Reduction* | | 28.0% | -0.5% | -7.9% | 12.9% | -0.3% | 32.2% | |
| *Average Value* | | $16,529 | $148 | -$1,088 | $5,598 | $109 | | |
| *% Market Poor HHs Receiving* | | 41.5% | | | 59.7% | | | |
| 2012 | 0.187 | | | | | | | 0.109 |
| *Absolute Reduction* | | 0.051 | 0.000 | -0.011 | 0.039 | -0.001 | 0.078 | |
| *% Total Absolute Poverty Reduction* | | 65.4% | 0.0% | -14.2% | 49.7% | -0.9% | | |
| *Relative Reduction* | | 27.2% | 0.0% | -5.9% | 20.7% | -0.4% | 41.6% | |
| *Average Value* | | $16,514 | $120 | -$996 | $6,728 | $47 | | |
| *% Market Poor HHs Receiving* | | 39.0% | | | 70.2% | | | |
| 2016 | 0.183 | | | | | | | 0.129 |
| *Absolute Reduction* | | 0.046 | -0.001 | -0.011 | 0.021 | -0.001 | 0.054 | |
| *% Total Absolute Poverty Reduction* | | 86.6% | -2.8% | -21.5% | 38.7% | -1.3% | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Relative Reduction* | 25.2% | -0.4% | -6.2% | 11.2% | -0.8% | 29.0% |
| *Average Value* | $16,142 | $228 | -$1,130 | $5,2753 | $96 | |
| *% Market Poor HHs Receiving* | 40.8% | | | 65.7% | | |

*Note:* The calculations included in this table use a three-year moving average (2015-2017) and include the TRIM3 benefit under-reporting adjustments for state transfers (SSI, TANF, and SNAP). Market and disposable income poverty calculations are the proportion of each household type in poverty using each income definition. Absolute poverty reductions are calculated as the difference between market and disposable income and the share (percentage) of this overall poverty reduction attributable to each mechanism. Relative reductions are calculated as the percentage of market income poverty reduced overall and attributable to each mechanism. Average values are the average, non-zero dollar amounts paid or received from each mechanism by market income poor households, and are inflation-adjusted to 2016 dollars using the CPI-U-RS. Taxes values are net of all credits and liabilities. Percent of market poor households receiving are the percentages of these households who receive income from each source.

Figure 1. Market and Disposable Income Poverty Rates and Total Poverty Reduction for Households with and without Children, 1996-2016

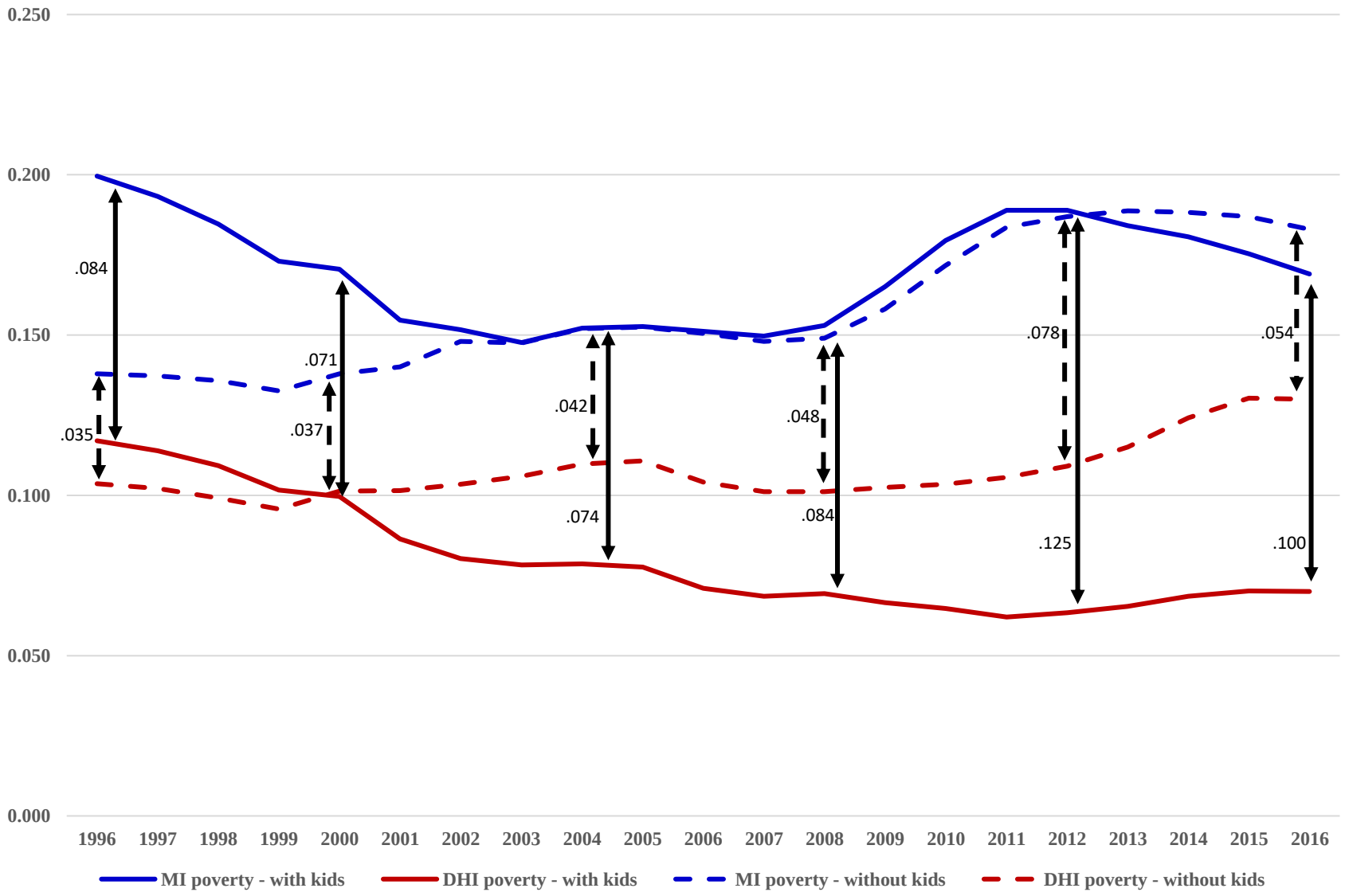
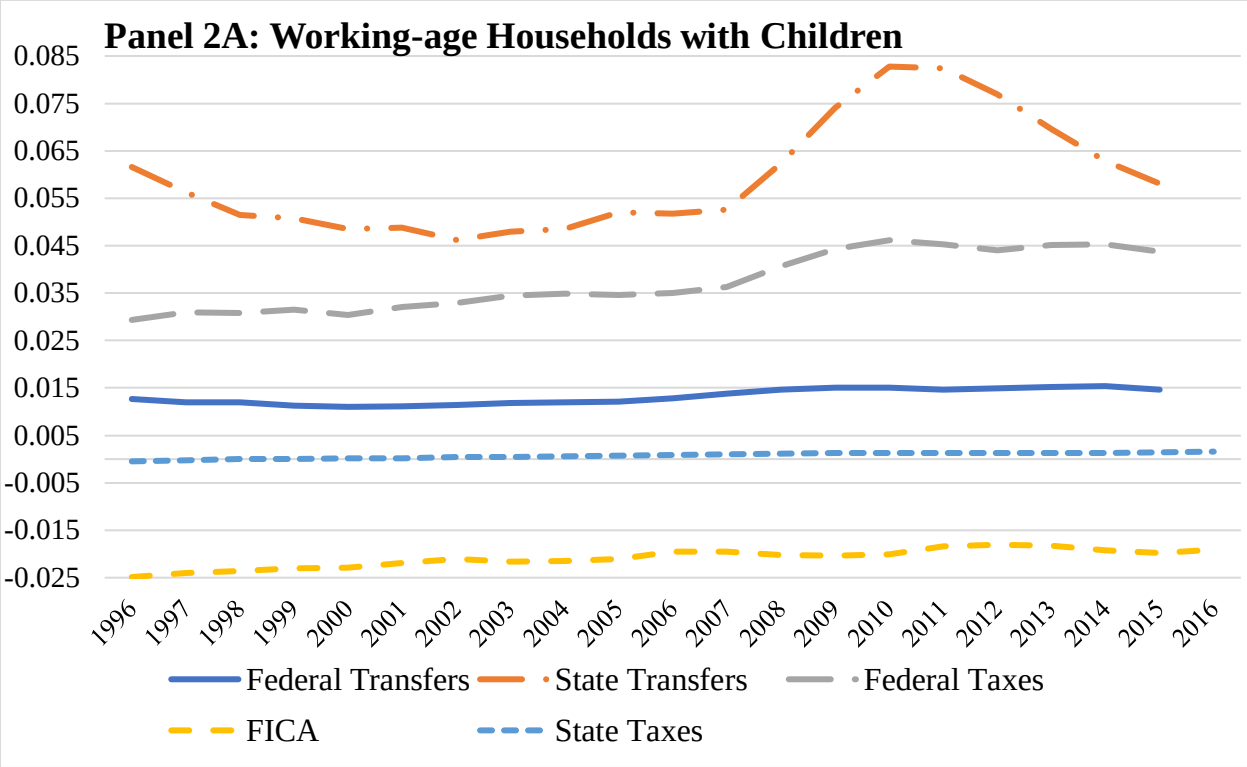


Figure 2. Poverty Reduction by Redistributive Mechanism, Working-age Households with and without Children, 1996-2016



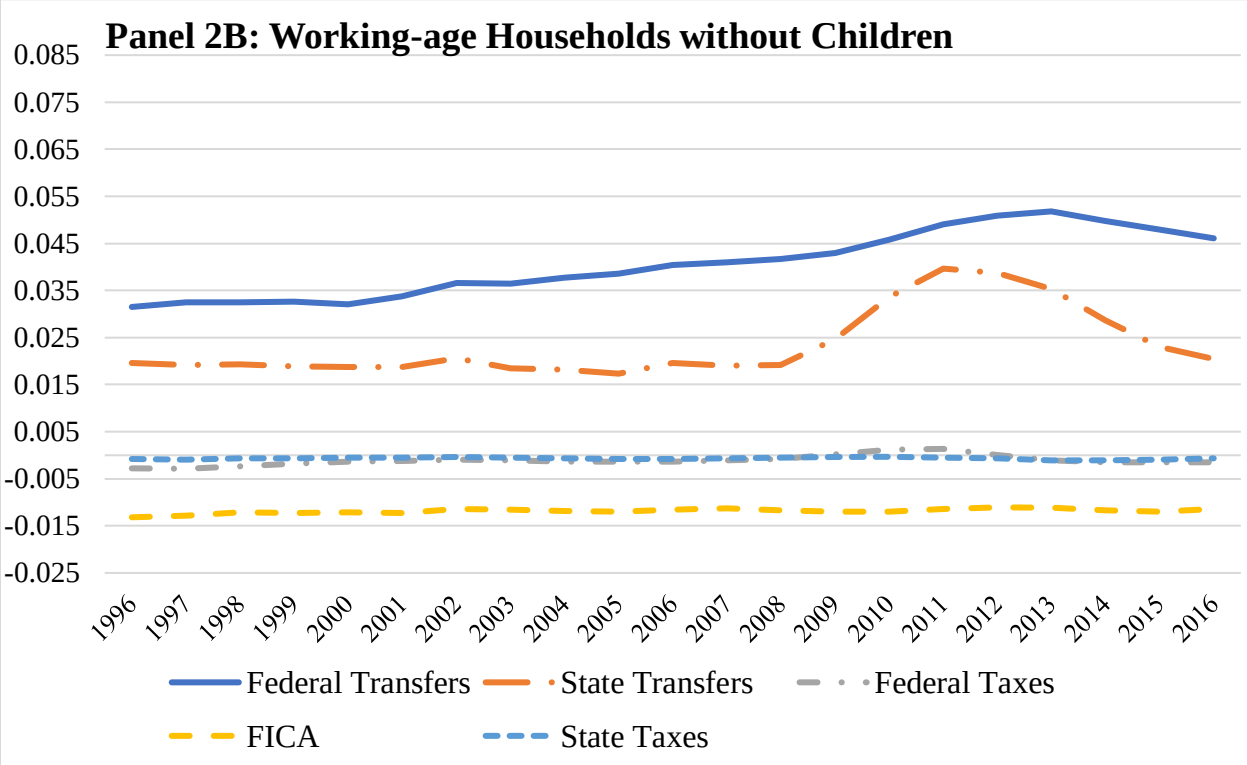
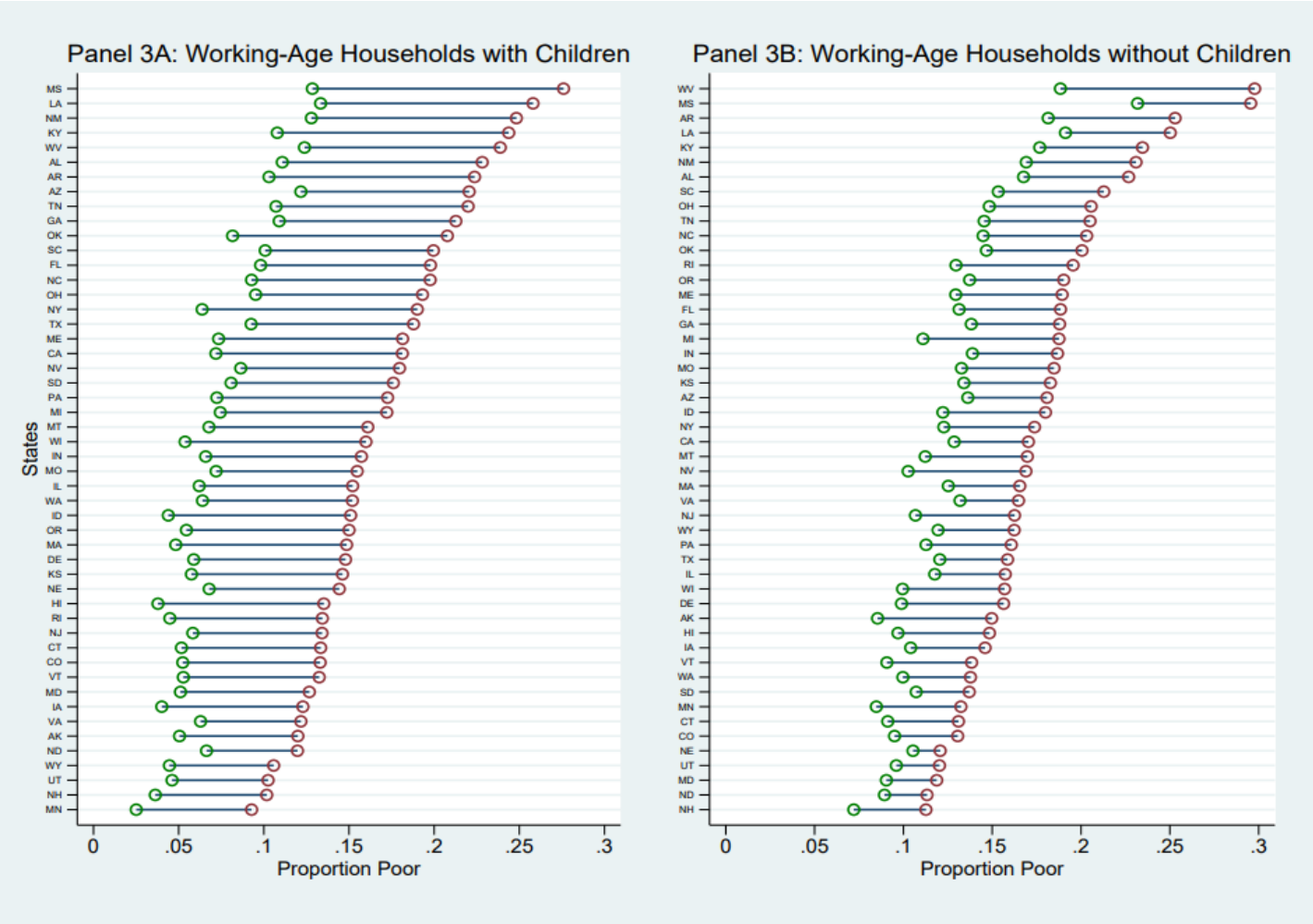
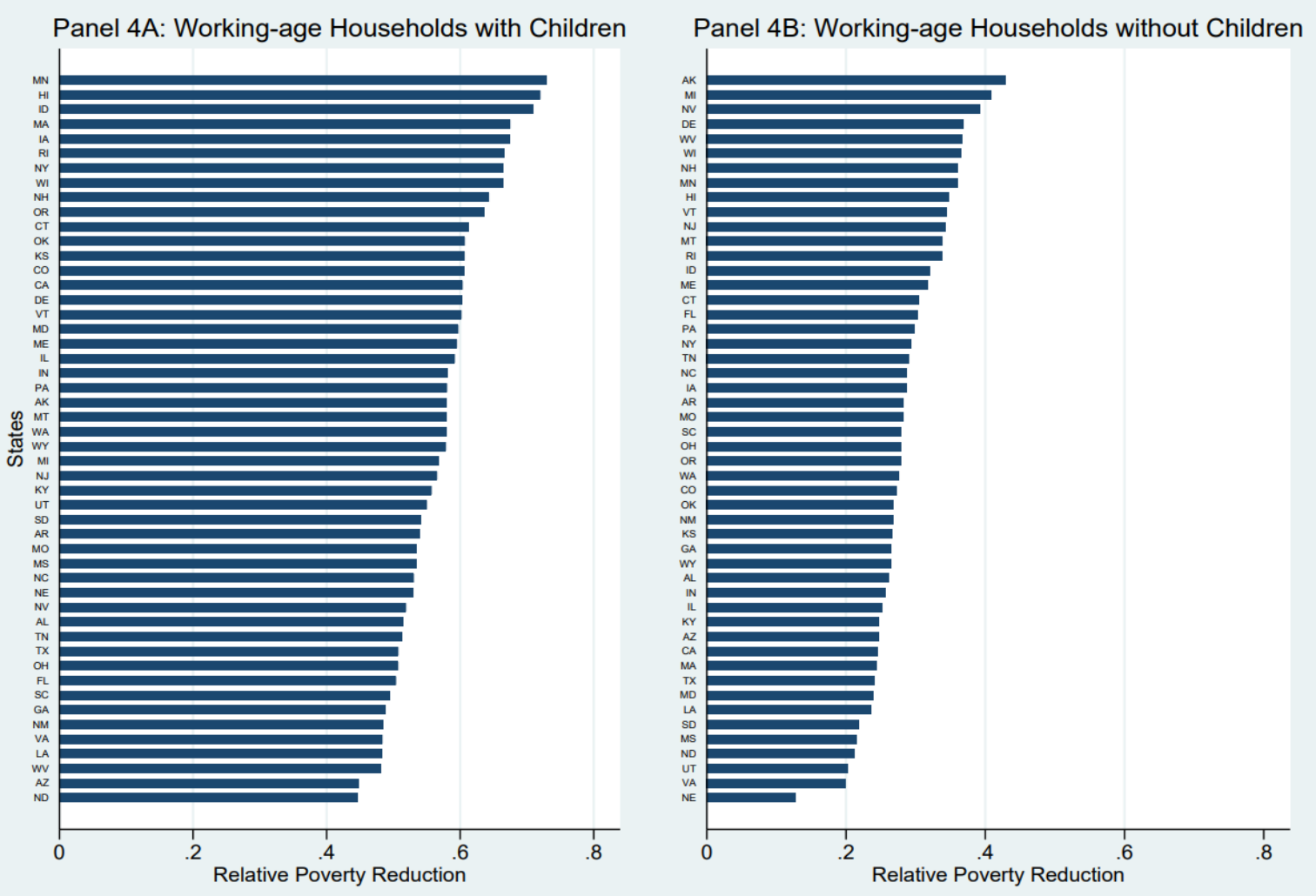



Figure 3. Absolute Market and Disposable Income Poverty by State, Working-age Households with and without Children, 2016



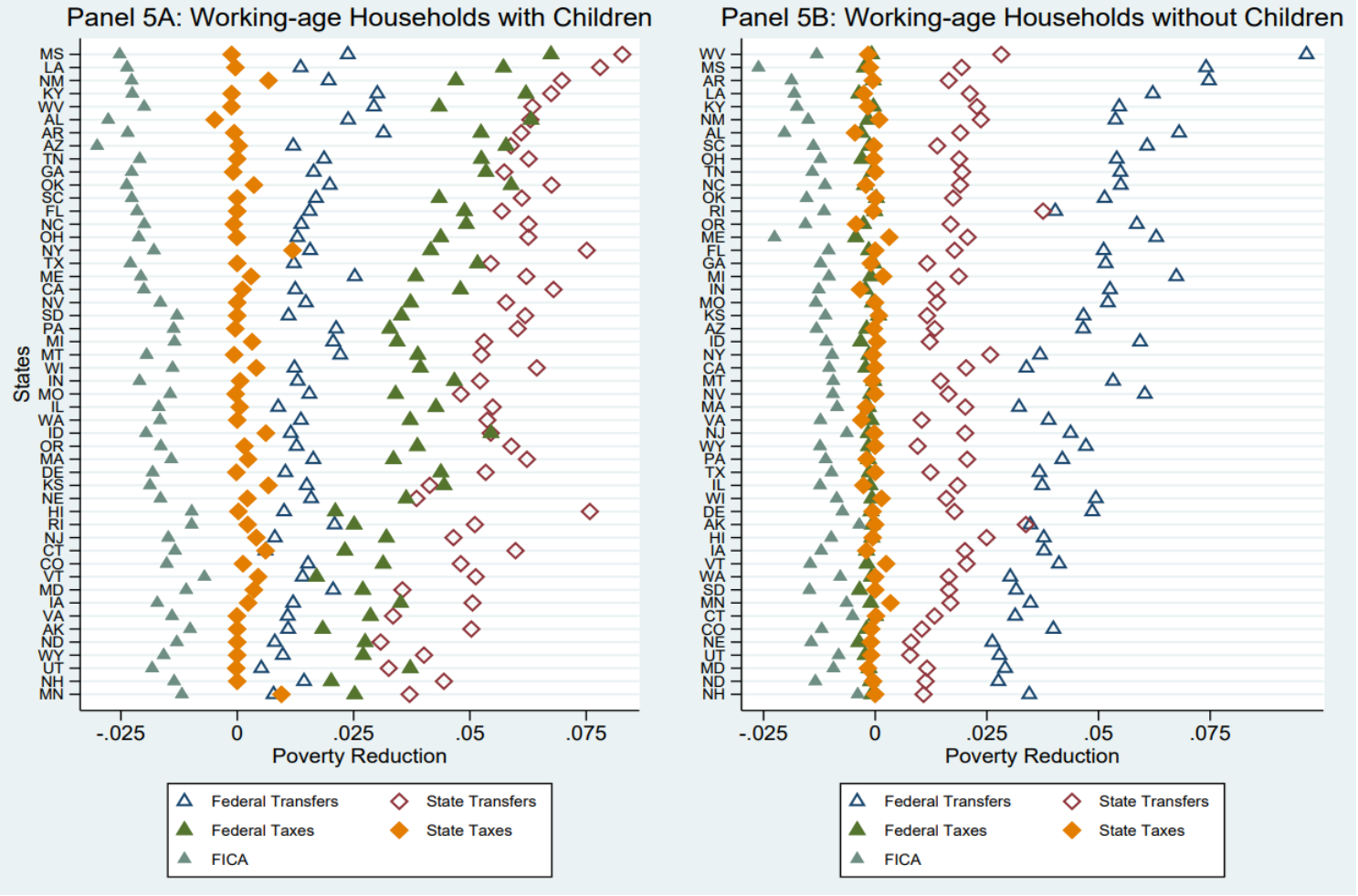

*Note*: States ordered highest (top) to lowest (bottom) by market income poverty. The left side of each horizonal bar in Panels 3A and 3B shows the state-level disposable income poverty rate, while the right side of the bar captures the state-level market income poverty rate. The length of the bar thus illustrates the total absolute poverty reduction attributable to the four mechanisms. Detailed estimates provided in Appendix Table A2 for households with children and A3 for households without children. Results that do not include the TRIM3 benefit under-reporting adjustments for state transfers are available in the Appendix, see Figure A1 and Tables A6 for households with children and A7 for households without children.

Figure 4. Relative Poverty Reduction by State, Working-age Households with and without Children, 2016




*Note*: States ordered highest (top) to lowest (bottom) by percentage of market poverty reduced (relative poverty reduction). The length of the bar illustrates the total relative poverty reduction attributable to the four mechanisms. Detailed estimates provided in Appendix Table A4 for households with children and A5 for households without children. Results that do not include the TRIM3 benefit under-reporting adjustments for state transfers are available in the Appendix, see Figure A2 and Tables A8 for households with children and A9 for households without children.

Figure 5. Average Absolute Poverty Reduction Attributed to Redistributive Mechanisms by State, Working-age Households with and without Children, 2016




*Note*: States ordered highest (top) to lowest (bottom) by market income poverty (as in Figure 3). Positive estimates indicate reduction whereas negative estimates indicate mechanisms increasing poverty (as is the case with FICA). Detailed estimates provided in Appendix Table A2 for households with children and A3 for households without children. Results that do not include the TRIM3 benefit under-reporting adjustments for state transfers are available in the Appendix, see Figure A3.

Figure 6. Average Relative Poverty Reduction Attributed to Redistributive Mechanisms by State, Working-age Households with and without Children, 2016

*Note*: States ordered highest (top) to lowest (bottom) by percentage of market poverty reduced (relative poverty reduction) as in Figure 4. Positive estimates indicate reduction whereas negative estimates indicate mechanisms increasing poverty (as is the case with FICA). Detailed estimates provided in Appendix Table A4 for households with children and A5 for households without children. Results that do not include the TRIM3 benefit under-reporting adjustments for state transfers are available in the Appendix, see Figure A4.

## Appendix

This appendix provides greater descriptions and details about the data, measures, and analyses conducted in the manuscript.

*CPS ASEC Demographic Sample Notes*

In addition to differences in income and size of transfers received by each household type, we also observe differences in the average household size and age of the household head across our types. In 1995, the first year of our CPS ASEC data, the average size of working-age households with children is approximately 4 persons, while for working-age households without children is 1.8 persons. From the first to the final year, 2017, in our dataset the average size of household types changed little. Working-age households with children on average remained approximately 4 persons, while working-age households without children grew to 1.9 persons on average. We also observe differences in the average age of household heads across our household types. Heads of working-age households with children are on average 37.9 years of age in 1995, while heads of households without children are approximately 44.1 years. By 2017, heads of households with children were approximately 40 years of age on average and heads of households without children 46 years of age.

*Reference Periods in ASEC Data*

One longstanding feature of the CPS survey design likely adds some noise to our results. As is the case with many household surveys, the CPS reference period varies across sections of the survey. Specifically, the CPS-ASEC asks a series of questions about more than 50 sources of income during the previous calendar year. In contrast, the demographic data refer to the time of the survey.

The majority of programs that compose our federal and state transfer mechanisms have an income reference period of twelve months from January to December of the calendar year prior to the time of the CPS interview. The only exceptions are the measure of housing subsidies, which reports an average monthly value for the prior calendar year, and the measure of energy assistance. Prior to 2011, CPS interviewers would ask for the total value of financial assistance provided for heating costs by the Low-Income Home Energy Assistance Program from October 1 of the prior year to March of interview year. After 2011, the CPS questionnaire shifted to ask instead for the total value of financial assistance from the Low-Income Home Energy Assistance Program for heating and cooling costs in the entire twelve months of the prior calendar year. To annualize housing subsidies, we multiply the average monthly value for each household by twelve.

In practice, this means that the income questions refer to a 12-month period, running from January 1 through December 31, in Year T, while questions about the demographic composition of the household refer to February-March-April of Year T+1. A household's composition could change, of course, during the first reference period or between the two reference periods – resulting in what we refer to as the problem of "reference period mismatch".

We see evidence of this mismatch in our results on benefit recipiency rates among households without children. Our analyses indicate that about 1-2% of the households without children in

our sample report receiving "child support" and about 1-2% report receiving "school lunch subsidies." Our inference is that this unexpected result arose because a small but unknown share of households reporting including no resident children at the time of the survey, but the household included children during some or all of the prior calendar year. The converse situation is also likely; some of the households with children may not have contained those children during some or all of the prior calendar year; that would lead to an underestimation of recipiency rates of child-related benefits among these households. To the best of our knowledge, no straightforward strategy exists for addressing this problem when using the CPS data.

*School Lunch and Housing Subsidies Value Imputation Details*

School Lunch: To determine the size of the imputed value, Census researchers first determine the number of eligible children aged between 5 and 18 within a given household. Because the National School Lunch Program subsidizes the cost of all complete hot lunches served at school, eligible children include all those who ate a complete hot lunch, in addition to those who usually received a reduced-price lunch or a free lunch at school. The high level of receipt for this transfer is likely due in part to the fact all children consuming hot lunches at school are beneficiaries of the subsidy and therefore technically recipients of this transfer. Census researchers ask interviewees to specify whether children in the household both usually consumed a complete hot lunch at school, as well as whether they received either free or reduced-price lunches. If a household's pre-tax income falls below 150% of the poverty line, and children eats a complete hot lunch at school, the value of a free lunch is assigned to each child (Jessica Semega, email message to authors, October 9, 2020). The number of children per eligible household is then multiplied by an average meal value calculated as the mean cost of either the hot lunch subsidy, a reduced-price, or a free lunch across the 48 contiguous United States in the survey year at schools where fewer than 60 percent of lunches were free or reduced-price. Finally, this value is multiplied by 167, which is the number of school days in a single year. For documentation on the imputation procedure for the value of school lunches as well as other noncash transfers, see U.S. Bureau of the Census (1993) especially page B-1. For a more detailed explanation of the procedure, see Garner, Gudrais, and Short (2015), which details its usage for the purposes of constructing the Supplemental Poverty Measure.

Housing Subsidies: To determine the value of housing subsidies, Census researchers inquire whether the respondent is paying a reduced rent due to a federal, state or local government subsidy program. Researchers then estimate the cost of market rent in the respondent's geographic area and calculate the housing subsidy value as the cost of the difference between the rent charged to the respondent and the market rent in their geographic area. For a more detailed explanation of the procedure, see Johnson, Renwick, and Short (2010), which describes alternative imputation methods and assumptions, and its usage for the purposes of constructing the Supplemental Poverty Measure.

*TAXSIM Data, Measures, and Sample Notes*

TAXSIM provides federal and state income tax estimates that include federal payroll taxes, federal and state income tax schedules, specific federal and state tax deductions, exemptions, and credits. Household composition and income data generated from the CPS ASEC microdata are inputted into the TAXSIM program to obtain estimates of state and federal tax liabilities and credits for all households.

We use the TAXSIM version 32 which provides accurate estimations of individual states' tax liabilities and credits for households using formulas that are updated annually to encompass changes in state and federal tax codes by Daniel Feenberg and staff at the NBER. The CPS also provides imputed tax measures derived from the Census Bureau's tax estimation model (see O'Hara 2004). Comparisons of the two methods have noted that the TAXSIM procedure is more accurate in capturing federal income tax liabilities and credits when compared to data from administrative sources (see Wheaton and Stevens 2016 for a more extensive comparison and discussion). The tax liability values provided by these two methods are, however, highly correlated (0.94-0.98) for households in the years included in our analyses.

Though we do not use the Census Bureau's tax estimations, we do use the income tax filer status variable provided by the CPS as an input for TAXSIM's marital status question. Like the Census Bureau's other tax values, tax filing status is imputed for each individual. In each year of our data, the Census Bureau's tax model assigns a proportion of individuals surveyed by the CPS ASEC the status of non-filer. While non-filers can be dependents, a portion of non-filers in each year are household heads with dependents or spouses according to the CPS ASEC's marital status variable. The NBER TAXSIM program does not accept non-filer as one of its four filer types – household head, married, separate but filing jointly, or dependent – and thus cannot calculate liabilities or credits for Census-designated non-filers. Rather than exclude all household heads and spouses classified as non-filers from the TAXSIM calculations, we assign non-filer heads and spouses a TAXSIM filing status according to their marital status. We assign non-dependent non-filers that report being married and who are either a household head or a spouse, a TAXSIM filer status of 'married.' All remaining non-dependent non-filers we assign the status of 'household head.' We include Census-designated non-filers in our TAXSIM calculations because we find that excluding these observations would leave a substantial number of households without income data for state or federal taxes. For example, 34,451 households in our 2016 data (years 2015-2017) which represents 16.5% of the ASEC CPS sample in each year are labelled as non-filers. Further, across the 2015-2017 years, 34.2% of market income poor households with children and 63.5% of market income poor households without children possess a non-filer status, and thus TAXSIM estimates no tax values.

Tax filing households may also lack a tax value if TAXSIM estimates a tax value of $0. Among market income poor tax filing households in our 2016 data, TAXSIM estimated only 36.9% paid or received $0 in federal taxes and that 66% paid or received $0 in state taxes. The proportions among households without children in 2016 are even higher: TAXSIM estimated 75% paid or received $0 in federal taxes, while 77.5% paid or received $0 in state taxes.

Our decision to include non-filers in our TAXSIM calculations has the potential to overestimate the poverty-reducing impact of federal and state taxes. Ideally, if the Census Bureau's tax model

accurately designates non-filing individuals according to the likelihood of their need to file a tax return, and thus receive a refund or pay a liability, TAXSIM calculations with and without Census-designated non-filers should be similar as non-filing households should have a net liability or credit near $0. Comparing filer and non-filer households in our 2016 data (years 2015-2017), this is in practice what we find. A near zero proportion of working-age households with and without children in market income poverty designated as non-filers by the Census are estimated to receive a non-zero value from TAXSIM. The proportion of Census-designated non-filers of either household type with TAXSIM-estimated state tax values, however, is higher. 6.5% of Census-designated non-filing working-age households with children in market income poverty have a TAXSIM-estimated non-zero tax value, while the corresponding figure for working-age households without children is 9.8%.

*FICA*

Our analyses of the impact of FICA payroll taxes use the estimated FICA value generated from the Census Bureau's tax model available from the CPS ASEC. Though TAXSIM separately estimates the size of each household's FICA deduction, we choose to use the Census-estimated FICA value because TAXSIM cannot identify and account for the self-employed, as the TAXSIM model does not ask for employment information to be inputted. Because of TAXSIM's inability to distinguish the self-employed, TAXSIM output includes a single FICA value equal to both the employer and employee share of the tax. The Census Bureau's estimations, by contrast, use employment information to estimate a FICA value for employed individuals in each year of data, and are therefore more accurate.

*Benefit Underreporting Data, Measures, and Analysis Details*

In constructing the TRIM3 data, the Urban Institute employs an imputation model to identify and correct the reporting of means-tested incomes using administrative data. The TRIM3 are designed to append the CPS ASEC data and provides values that can be used to replace or "correct" the ASEC values for these means-tested benefits. For more information on the TRIM3 estimation of benefit receipt, see Zedlewski and Giannarelli (2015). In some cases, this correction results in the overestimation of recipiency and transfer values (Stevens et al. 2018; Meyer and Mittag 2019). Parolin (2019) found that the percentage of SNAP, TANF, and SSI benefits accounted for improved by 34, 39.5, and 8.3 percentage points respectively following the TRIM3 correction. Parolin also notes that there is a wide variation in the amount of inconsistency between TRIM3 and CPS across states; in approximately a fifth of states, TRIM3 overestimated recipiency of SNAP, TANF, or SSI.

*Improving TAXSIM Estimations Using TRIM3 Data*

Among the 32 variables that TAXSIM uses to calculate tax estimates, not all data are available from the CPS ASEC. Following Wheaton and Stevens (2016), we use imputed data from TRIM3 to improve the accuracy of our TAXSIM calculations when available. We use the simulated amount of rent paid by households residing in subsidized or public housing from the TRIM3 Public and Subsidized Housing Module version 36.0 for all years of our data. Because this value is used by TAXSIM to calculate state-level rent and property tax rebates, the availability of

simulated rent payments for individuals living in subsidized or public housing only potentially undervalues these tax credits for market income poor homeowners. We additionally use the simulated annual value of childcare expenses aggregated from the monthly childcare expenses from the TRIM3 Child Care Module version 44.0 for years 2004-2017 of our data. More extensive information on the TRIM3 simulations for all modules can be located at https://boreas.urban.org/T3Technical.php.

Table A1. Unadjusted Poverty Reduction by Policy Mechanism by Household Type, 2016

| Household Type | Market Income Poverty | Poverty Reduction Attributable to | | | | | Overall Poverty Reduction | Disposable Income Poverty |
|---|---|---|---|---|---|---|---|---|
| | | | Federal Taxes | | | | | |
| | | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | | |
| Working-Age Households with Children | | | | | | | | |
| | 0.169 | | | | | | | 0.091 |
| *Absolute Reduction* | | 0.014 | 0.045 | -0.020 | 0.037 | 0.002 | 0.078 | |
| *% Total Absolute Poverty Reduction* | | 17.9% | 57.7% | -25.6% | 47.4% | 2.6% | | |
| *Relative Reduction* | | 8.4% | 26.6% | -12.1% | 21.7% | 0.9% | 46.2% | |
| *Average Value* | | $15,932 | $5,316 | -$2,093 | $7,004 | $554 | | |
| *% Market Poor HHs Receiving* | | 17.8% | | | 89.3% | | | |
| Working-Age Households without Children | | | | | | | | |
| | 0.183 | | | | | | | 0.132 |
| *Absolute Reduction* | | 0.045 | -0.002 | -0.011 | 0.020 | -0.001 | 0.051 | |
| *% Total Absolute Poverty Reduction* | | 88.2% | -3.9% | -21.6% | 39.2% | -2.0% | | |
| *Relative Reduction* | | 24.8% | -0.8% | -6.0% | 10.9% | -0.4% | 27.8% | |
| *Average Value* | | $16,183 | $229 | -$1,132 | $6,750 | $97 | | |
| *% Market Poor HHs Receiving* | | 40.8% | | | 47.1% | | | |

*Note:* The calculations included in this table use a three-year moving average (2015-2017) and use CPS ASEC data unadjusted for underreporting. Market and disposable income poverty calculations are the proportion of each household type in poverty using each income definition. Absolute poverty reductions are calculated as the difference between market and disposable income and the share (percentage) of this overall poverty reduction attributable to each mechanism. Relative reductions are calculated as the percentage of market income poverty reduced overall and attributable to each mechanism. Average values are the average, non-zero dollar amounts paid or received from each mechanism by market income poor households. Tax values are net of all credits and liabilities. Percent of market poor households receiving are the percentages of these households who receive income from each source.

Table A2. Poverty Reduction by Policy Mechanism and Household Type, SNAP and SSI as State or Federal Transfers, 2016

| Household Type | Absolute Reduction | | Relative Reduction | | Average Value | | Percentage of Market Poor Households Receiving | |
|---|---|---|---|---|---|---|---|---|
| | Federal Transfers | State Transfers | Federal Transfers | State Transfers | Federal Transfers | State Transfers | Federal Transfers | State Transfers |
| Working-Age Households with Children | | | | | | | | |
| *SNAP and SSI as State Transfers* | 0.015 | 0.058 | 8.7% | 34.5% | $15,905 | $9,568 | 17.8% | 97.5% |
| *SNAP as a Federal Transfer* | 0.044 | 0.028 | 25.8% | 16.8% | $7,807 | $5,686 | 93.3% | 85.1% |
| *SSI as a Federal Transfer* | 0.024 | 0.049 | 14.1% | 28.9% | $13,852 | $7,745 | 33.4% | 97.3% |
| *SNAP and SSI as Federal Transfers* | 0.053 | 0.019 | 31.2% | 11.5% | $9,641 | $3,646 | 94.1% | 83.8% |
| Working-Age Households without Children | | | | | | | | |
| *SNAP and SSI as State Transfers* | 0.046 | 0.021 | 25.2% | 11.2% | $16,142 | $5,275 | 40.8% | 66.5% |
| *SNAP as a Federal Transfer* | 0.053 | 0.013 | 29.2% | 7.2% | $9,608 | $6,743 | 79.7% | 33.9% |
| *SSI as a Federal Transfer* | 0.053 | 0.014 | 28.8% | 7.6% | $14,931 | $2,915 | 55.2% | 62.6% |
| *SNAP and SSI as Federal Transfers* | 0.058 | 0.005 | 32.6% | 3.8% | $11,358 | $2,674 | 82.0% | 26.4% |

*Note:* The calculations included in this table use a three-year moving average (2015-2017) and include the TRIM3 benefit under-reporting adjustments for state transfers (SSI, TANF, and SNAP). Market and disposable income poverty calculations are the proportion of each household type in poverty using each income definition. Absolute poverty reductions are calculated as the difference between market and disposable income and the share (percentage) of this overall poverty reduction attributable to each mechanism. Relative reductions are calculated as the percentage of market income poverty reduced overall and attributable to each mechanism. Average values are the average, non-zero dollar amounts paid or received from each mechanism by market income poor households, and are inflation-adjusted to 2016 dollars using the CPI-U-RS. Tax values are net of all credits and liabilities. Percent of market poor households receiving are the percentages of these households who receive income from each source. The values of absolute and relative poverty reduction attributable to the tax policy mechanisms also change in size when SNAP and SSI programs are rearranged across state and federal transfer mechanisms; however, these values are not provided in this table.

Table A3. Average Absolute Poverty Reduction Attributed to Redistributive Mechanisms by State, Working-age Households with Children, 2016

| State | Market Poverty Rate | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | Disposable Poverty Rate |
|---|---|---|---|---|---|---|---|
| MS | 0.28 | 0.02 | 0.07 | -0.03 | 0.08 | 0.02 | 0.13 |
| LA | 0.26 | 0.01 | 0.06 | -0.02 | 0.08 | 0.01 | 0.13 |
| NM | 0.25 | 0.02 | 0.05 | -0.02 | 0.07 | 0.02 | 0.13 |
| KY | 0.24 | 0.03 | 0.06 | -0.02 | 0.07 | 0.03 | 0.11 |
| WV | 0.24 | 0.03 | 0.04 | -0.02 | 0.06 | 0.03 | 0.12 |
| AL | 0.23 | 0.02 | 0.06 | -0.03 | 0.06 | 0.02 | 0.11 |
| AR | 0.22 | 0.03 | 0.05 | -0.02 | 0.06 | 0.03 | 0.10 |
| AZ | 0.22 | 0.01 | 0.06 | -0.03 | 0.06 | 0.01 | 0.12 |
| TN | 0.22 | 0.02 | 0.05 | -0.02 | 0.06 | 0.02 | 0.11 |
| GA | 0.21 | 0.02 | 0.05 | -0.02 | 0.06 | 0.02 | 0.11 |
| OK | 0.21 | 0.02 | 0.06 | -0.02 | 0.07 | 0.02 | 0.08 |
| SC | 0.20 | 0.02 | 0.04 | -0.02 | 0.06 | 0.02 | 0.10 |
| FL | 0.20 | 0.02 | 0.05 | -0.02 | 0.06 | 0.02 | 0.10 |
| NC | 0.20 | 0.01 | 0.05 | -0.02 | 0.06 | 0.01 | 0.09 |
| OH | 0.19 | 0.01 | 0.04 | -0.02 | 0.06 | 0.01 | 0.10 |
| NY | 0.19 | 0.02 | 0.04 | -0.02 | 0.08 | 0.02 | 0.06 |
| TX | 0.19 | 0.01 | 0.05 | -0.02 | 0.05 | 0.01 | 0.09 |
| ME | 0.18 | 0.03 | 0.04 | -0.02 | 0.06 | 0.03 | 0.07 |
| CA | 0.18 | 0.01 | 0.05 | -0.02 | 0.07 | 0.01 | 0.07 |
| NV | 0.18 | 0.01 | 0.04 | -0.02 | 0.06 | 0.01 | 0.09 |
| SD | 0.18 | 0.01 | 0.04 | -0.01 | 0.06 | 0.01 | 0.08 |
| PA | 0.17 | 0.02 | 0.03 | -0.01 | 0.06 | 0.02 | 0.07 |
| MI | 0.17 | 0.02 | 0.03 | -0.01 | 0.05 | 0.02 | 0.07 |
| MT | 0.16 | 0.02 | 0.04 | -0.02 | 0.05 | 0.02 | 0.07 |
| WI | 0.16 | 0.01 | 0.04 | -0.01 | 0.06 | 0.01 | 0.05 |
| IN | 0.16 | 0.01 | 0.05 | -0.02 | 0.05 | 0.01 | 0.07 |
| MO | 0.15 | 0.02 | 0.03 | -0.01 | 0.05 | 0.02 | 0.07 |
| IL | 0.15 | 0.01 | 0.04 | -0.02 | 0.05 | 0.01 | 0.06 |
| WA | 0.15 | 0.01 | 0.04 | -0.02 | 0.05 | 0.01 | 0.06 |
| ID | 0.15 | 0.01 | 0.05 | -0.02 | 0.05 | 0.01 | 0.04 |
| OR | 0.15 | 0.01 | 0.04 | -0.02 | 0.06 | 0.01 | 0.05 |
| MA | 0.15 | 0.02 | 0.03 | -0.01 | 0.06 | 0.02 | 0.05 |
| DE | 0.15 | 0.01 | 0.04 | -0.02 | 0.05 | 0.01 | 0.06 |
| KS | 0.15 | 0.01 | 0.04 | -0.02 | 0.04 | 0.01 | 0.06 |
| NE | 0.14 | 0.02 | 0.04 | -0.02 | 0.04 | 0.02 | 0.07 |
| HI | 0.14 | 0.01 | 0.02 | -0.01 | 0.08 | 0.01 | 0.04 |
| RI | 0.13 | 0.02 | 0.03 | -0.01 | 0.05 | 0.02 | 0.04 |
| NJ | 0.13 | 0.01 | 0.03 | -0.01 | 0.05 | 0.01 | 0.06 |
| CT | 0.13 | 0.01 | 0.02 | -0.01 | 0.06 | 0.01 | 0.05 |
| CO | 0.13 | 0.02 | 0.03 | -0.02 | 0.05 | 0.02 | 0.05 |
| VT | 0.13 | 0.01 | 0.02 | -0.01 | 0.05 | 0.01 | 0.05 |
| MD | 0.13 | 0.02 | 0.03 | -0.01 | 0.04 | 0.02 | 0.05 |
| IA | 0.12 | 0.01 | 0.04 | -0.02 | 0.05 | 0.01 | 0.04 |
| VA | 0.12 | 0.01 | 0.03 | -0.01 | 0.03 | 0.01 | 0.06 |
| AK | 0.12 | 0.01 | 0.02 | -0.01 | 0.05 | 0.01 | 0.05 |
| ND | 0.12 | 0.01 | 0.03 | -0.01 | 0.03 | 0.01 | 0.07 |
| WY | 0.11 | 0.01 | 0.03 | -0.02 | 0.04 | 0.01 | 0.04 |
| UT | 0.10 | 0.01 | 0.04 | -0.02 | 0.03 | 0.01 | 0.05 |
| NH | 0.10 | 0.01 | 0.02 | -0.01 | 0.04 | 0.01 | 0.04 |
| MN | 0.09 | 0.01 | 0.03 | -0.01 | 0.04 | 0.01 | 0.03 |

Table A4. Average Absolute Poverty Reduction Attributed to Redistributive Mechanisms by State, Working-age Households without Children, 2016

| State | Market Poverty Rate | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | Disposable Poverty Rate |
|---|---|---|---|---|---|---|---|
| WV | 0.30 | 0.10 | 0.00 | -0.01 | 0.03 | 0.00 | 0.19 |
| MS | 0.30 | 0.07 | 0.00 | -0.03 | 0.02 | 0.00 | 0.23 |
| AR | 0.25 | 0.07 | 0.00 | -0.02 | 0.02 | 0.00 | 0.18 |
| LA | 0.25 | 0.06 | 0.00 | -0.02 | 0.02 | 0.00 | 0.19 |
| KY | 0.23 | 0.05 | 0.00 | -0.02 | 0.02 | 0.00 | 0.18 |
| NM | 0.23 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.17 |
| AL | 0.23 | 0.07 | 0.00 | -0.02 | 0.02 | 0.00 | 0.17 |
| SC | 0.21 | 0.06 | 0.00 | -0.01 | 0.01 | 0.00 | 0.15 |
| OH | 0.21 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.15 |
| TN | 0.21 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.15 |
| NC | 0.20 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.14 |
| OK | 0.20 | 0.05 | 0.00 | -0.02 | 0.02 | 0.00 | 0.15 |
| RI | 0.20 | 0.04 | 0.00 | -0.01 | 0.04 | 0.00 | 0.13 |
| OR | 0.19 | 0.06 | 0.00 | -0.02 | 0.02 | 0.00 | 0.14 |
| ME | 0.19 | 0.06 | 0.00 | -0.02 | 0.02 | 0.00 | 0.13 |
| FL | 0.19 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| GA | 0.19 | 0.05 | 0.00 | -0.01 | 0.01 | 0.00 | 0.14 |
| MI | 0.19 | 0.07 | 0.00 | -0.01 | 0.02 | 0.00 | 0.11 |
| IN | 0.19 | 0.05 | 0.00 | -0.01 | 0.01 | 0.00 | 0.14 |
| MO | 0.18 | 0.05 | 0.00 | -0.01 | 0.01 | 0.00 | 0.13 |
| KS | 0.18 | 0.05 | 0.00 | -0.01 | 0.01 | 0.00 | 0.13 |
| AZ | 0.18 | 0.05 | 0.00 | -0.01 | 0.01 | 0.00 | 0.14 |
| ID | 0.18 | 0.06 | 0.00 | -0.01 | 0.01 | 0.00 | 0.12 |
| NY | 0.17 | 0.04 | 0.00 | -0.01 | 0.03 | 0.00 | 0.12 |
| CA | 0.17 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| MT | 0.17 | 0.05 | 0.00 | -0.01 | 0.01 | 0.00 | 0.11 |
| NV | 0.17 | 0.06 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| MA | 0.17 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| VA | 0.16 | 0.04 | 0.00 | -0.01 | 0.01 | 0.00 | 0.13 |
| NJ | 0.16 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.11 |
| WY | 0.16 | 0.05 | 0.00 | -0.01 | 0.01 | 0.00 | 0.12 |
| PA | 0.16 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.11 |
| TX | 0.16 | 0.04 | 0.00 | -0.01 | 0.01 | 0.00 | 0.12 |
| IL | 0.16 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.12 |
| WI | 0.16 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| DE | 0.16 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| AK | 0.15 | 0.03 | 0.00 | 0.00 | 0.03 | 0.00 | 0.09 |
| HI | 0.15 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| IA | 0.15 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| VT | 0.14 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.09 |
| WA | 0.14 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| SD | 0.14 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.11 |
| MN | 0.13 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.08 |
| CT | 0.13 | 0.03 | 0.00 | -0.01 | 0.01 | 0.00 | 0.09 |
| CO | 0.13 | 0.04 | 0.00 | -0.01 | 0.01 | 0.00 | 0.10 |
| NE | 0.12 | 0.03 | 0.00 | -0.01 | 0.01 | 0.00 | 0.11 |
| UT | 0.12 | 0.03 | 0.00 | -0.01 | 0.01 | 0.00 | 0.10 |
| MD | 0.12 | 0.03 | 0.00 | -0.01 | 0.01 | 0.00 | 0.09 |
| ND | 0.11 | 0.03 | 0.00 | -0.01 | 0.01 | 0.00 | 0.09 |
| NH | 0.11 | 0.03 | 0.00 | 0.00 | 0.01 | 0.00 | 0.07 |

Table A5. Average Relative Poverty Reduction Attributed to Redistributive Mechanisms by State, Working-age Households with Children, 2016

| State | Market Poverty Rate | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | Percentage Poverty Reduced |
|---|---|---|---|---|---|---|---|
| MN | 9.3% | 4.6% | 15.0% | -7.0% | 21.9% | 5.6% | 73.0% |
| ID | 15.1% | 6.0% | 12.5% | -5.8% | 44.9% | 0.2% | 72.0% |
| HI | 13.5% | 6.8% | 32.3% | -11.6% | 32.3% | 3.6% | 70.9% |
| IA | 12.3% | 9.7% | 19.9% | -8.4% | 36.9% | 1.4% | 67.5% |
| WI | 16.0% | 7.1% | 20.8% | -10.2% | 30.0% | 1.4% | 67.4% |
| RI | 13.4% | 12.4% | 14.9% | -5.8% | 30.3% | 1.3% | 66.7% |
| NY | 19.0% | 9.3% | 24.6% | -10.6% | 44.5% | 7.0% | 66.5% |
| MA | 14.9% | 7.3% | 23.3% | -8.2% | 38.2% | 2.4% | 66.4% |
| NH | 10.2% | 8.5% | 12.0% | -8.0% | 26.3% | 0.0% | 64.3% |
| OR | 15.0% | 7.6% | 22.9% | -9.7% | 34.9% | 0.9% | 63.6% |
| KS | 14.6% | 3.6% | 13.7% | -7.9% | 35.4% | 3.6% | 61.3% |
| CA | 18.1% | 11.8% | 34.9% | -14.1% | 40.0% | 2.1% | 60.7% |
| CO | 13.3% | 8.9% | 26.3% | -11.1% | 24.5% | 4.0% | 60.7% |
| MD | 12.7% | 9.0% | 18.6% | -9.0% | 28.5% | 0.7% | 60.6% |
| DE | 14.8% | 7.4% | 28.4% | -11.9% | 40.3% | 0.7% | 60.4% |
| OK | 20.8% | 6.1% | 25.9% | -10.8% | 31.6% | -0.1% | 60.2% |
| ME | 18.1% | 8.3% | 10.1% | -4.2% | 30.4% | 2.7% | 60.2% |
| IL | 15.2% | 12.2% | 16.0% | -6.5% | 21.0% | 2.1% | 59.7% |
| WY | 10.6% | 15.0% | 22.7% | -12.3% | 36.8% | 1.8% | 59.5% |
| AK | 12.0% | 5.2% | 25.3% | -10.0% | 32.5% | 0.3% | 59.2% |
| PA | 17.3% | 7.7% | 27.7% | -12.5% | 30.9% | 0.4% | 58.1% |
| MI | 17.2% | 12.6% | 19.4% | -8.1% | 35.7% | -0.3% | 58.1% |
| MT | 16.1% | 6.5% | 10.9% | -6.0% | 29.8% | 0.0% | 57.9% |
| IN | 15.7% | 13.1% | 23.0% | -11.5% | 31.1% | -0.4% | 57.9% |
| CT | 13.3% | 8.1% | 22.0% | -9.8% | 31.9% | 0.0% | 57.9% |
| VT | 13.3% | 5.8% | 16.0% | -9.4% | 23.8% | 0.0% | 57.9% |
| WA | 15.2% | 12.2% | 20.4% | -8.0% | 31.5% | 1.9% | 56.8% |
| KY | 24.4% | 4.8% | 19.0% | -8.8% | 27.5% | 2.4% | 56.6% |
| NJ | 13.4% | 17.8% | 36.8% | -13.4% | 40.0% | -0.7% | 55.7% |
| UT | 10.2% | 3.1% | 22.0% | -10.8% | 19.3% | -0.1% | 55.0% |
| AR | 22.4% | 6.5% | 20.9% | -7.7% | 36.7% | 0.0% | 54.1% |
| NE | 14.4% | 18.6% | 31.0% | -13.9% | 36.2% | -0.4% | 53.9% |
| MS | 27.6% | 9.2% | 20.2% | -8.5% | 28.5% | -0.2% | 53.5% |
| MO | 15.5% | 14.1% | 40.0% | -15.0% | 49.0% | -0.7% | 53.4% |
| NC | 19.8% | 8.2% | 29.2% | -11.8% | 37.1% | -0.4% | 53.1% |
| NV | 18.0% | 9.4% | 21.5% | -9.8% | 22.8% | 1.3% | 53.0% |
| OH | 19.3% | 8.7% | 22.1% | -9.8% | 34.2% | 0.0% | 51.9% |
| TX | 18.8% | 14.1% | 37.4% | -16.4% | 37.3% | -2.9% | 51.4% |
| AL | 22.8% | 11.1% | 31.1% | -12.4% | 37.1% | 0.0% | 51.3% |
| TN | 22.0% | 7.2% | 30.6% | -13.6% | 32.3% | 0.0% | 50.7% |
| FL | 19.8% | 7.7% | 25.9% | -12.5% | 37.1% | 0.0% | 50.7% |
| SC | 20.0% | 9.2% | 29.0% | -12.7% | 33.7% | 0.0% | 50.4% |
| SD | 17.6% | 10.0% | 25.7% | -13.4% | 36.2% | 0.0% | 49.5% |
| WV | 23.9% | 9.7% | 31.7% | -13.4% | 34.0% | -0.5% | 48.8% |
| VA | 12.2% | 11.6% | 27.8% | -13.5% | 41.4% | 4.0% | 48.5% |
| LA | 25.8% | 6.4% | 17.0% | -8.3% | 19.8% | 0.0% | 48.4% |
| GA | 21.3% | 8.1% | 33.9% | -14.0% | 46.2% | -0.2% | 48.3% |
| NM | 24.8% | 17.4% | 25.7% | -11.9% | 37.6% | -0.7% | 48.1% |
| ND | 12.0% | 7.1% | 34.2% | -17.8% | 34.9% | 0.2% | 44.8% |
| AZ | 22.1% | 4.8% | 16.3% | -7.7% | 18.3% | 0.0% | 44.6% |

Table A6. Average Relative Poverty Reduction Attributed to Redistributive Mechanisms by State, Working-age Households without Children, 2016

| State | Market Poverty Rate | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | Percentage Poverty Reduced |
|---|---|---|---|---|---|---|---|
| AK | 15.0% | 19.0% | -0.4% | -1.9% | 18.4% | 0.0% | 42.9% |
| MI | 18.8% | 36.8% | -0.5% | -5.7% | 10.2% | 1.0% | 40.8% |
| NV | 16.9% | 33.0% | -0.5% | -5.2% | 9.0% | 0.0% | 39.2% |
| DE | 15.6% | 26.6% | -0.5% | -4.0% | 9.7% | -0.3% | 36.8% |
| WV | 29.8% | 52.8% | -0.4% | -7.2% | 15.4% | -0.9% | 36.7% |
| WI | 15.7% | 27.0% | -0.4% | -4.7% | 8.7% | 0.8% | 36.6% |
| NH | 11.3% | 18.9% | -0.4% | -2.1% | 5.9% | 0.0% | 36.0% |
| MN | 13.2% | 19.0% | -0.5% | -3.5% | 9.2% | 1.9% | 36.0% |
| HI | 14.8% | 20.6% | -0.4% | -5.4% | 13.6% | -0.3% | 34.7% |
| VT | 13.8% | 22.5% | -1.0% | -8.0% | 11.2% | 1.3% | 34.5% |
| NJ | 16.3% | 23.9% | -0.8% | -3.5% | 11.0% | -0.1% | 34.3% |
| MT | 17.0% | 29.1% | -0.2% | -5.1% | 8.0% | -0.4% | 33.9% |
| RI | 19.6% | 22.0% | -0.1% | -6.2% | 20.5% | -0.3% | 33.7% |
| ID | 18.0% | 32.4% | -1.8% | -6.0% | 6.7% | 0.2% | 32.1% |
| ME | 18.9% | 34.4% | -2.4% | -12.3% | 11.3% | 1.7% | 31.6% |
| CT | 13.1% | 17.1% | 0.0% | -2.8% | 7.3% | 0.1% | 30.4% |
| FL | 18.8% | 28.0% | -0.8% | -5.7% | 9.7% | 0.0% | 30.3% |
| PA | 16.1% | 22.9% | -0.8% | -6.1% | 11.3% | -1.1% | 29.9% |
| NY | 17.4% | 20.2% | -0.8% | -5.3% | 14.1% | -0.3% | 29.4% |
| TN | 20.5% | 30.0% | -0.4% | -7.7% | 10.6% | 0.0% | 29.1% |
| NC | 20.3% | 30.0% | -1.3% | -6.1% | 10.4% | -1.1% | 28.7% |
| IA | 14.6% | 20.7% | -1.1% | -6.6% | 11.0% | -1.1% | 28.7% |
| AR | 25.3% | 40.8% | -0.2% | -10.2% | 9.0% | -0.3% | 28.3% |
| MO | 18.5% | 28.5% | -0.3% | -7.3% | 7.6% | 0.0% | 28.2% |
| SC | 21.3% | 33.3% | -0.7% | -7.6% | 7.6% | -0.2% | 27.9% |
| OH | 20.6% | 29.5% | -1.6% | -6.7% | 10.3% | -0.2% | 27.9% |
| OR | 19.0% | 32.0% | -1.4% | -8.5% | 9.2% | -2.3% | 27.8% |
| WA | 13.8% | 16.5% | -0.4% | -4.3% | 9.0% | 0.0% | 27.6% |
| CO | 13.1% | 21.8% | -1.0% | -6.5% | 5.7% | -0.5% | 27.2% |
| OK | 20.1% | 28.1% | 0.1% | -8.4% | 9.5% | 0.0% | 26.8% |
| NM | 23.1% | 29.4% | -0.8% | -8.2% | 12.9% | 0.5% | 26.8% |
| KS | 18.3% | 25.5% | 0.4% | -6.1% | 6.3% | 0.4% | 26.6% |
| GA | 18.8% | 28.2% | -0.2% | -6.7% | 6.4% | -0.5% | 26.4% |
| WY | 16.2% | 25.8% | -0.8% | -6.7% | 5.2% | 0.0% | 26.4% |
| AL | 22.7% | 37.2% | -1.7% | -11.1% | 10.4% | -2.5% | 26.1% |
| IN | 18.7% | 28.7% | -1.2% | -6.9% | 7.4% | -1.9% | 25.6% |
| IL | 15.7% | 20.4% | -0.6% | -6.7% | 10.1% | -1.4% | 25.2% |
| KY | 23.5% | 29.9% | -0.2% | -9.6% | 12.5% | -0.9% | 24.7% |
| AZ | 18.1% | 25.4% | -1.0% | -7.2% | 7.3% | -0.2% | 24.6% |
| CA | 17.0% | 18.5% | -1.2% | -5.6% | 11.1% | 0.0% | 24.5% |
| MA | 16.6% | 17.6% | -0.8% | -4.7% | 11.0% | -1.1% | 24.3% |
| TX | 15.9% | 20.1% | -0.7% | -5.3% | 6.8% | 0.0% | 24.0% |
| MD | 11.9% | 15.9% | -0.7% | -5.1% | 6.3% | -0.9% | 23.9% |
| LA | 25.0% | 34.0% | -2.0% | -9.9% | 11.6% | -1.4% | 23.6% |
| SD | 13.7% | 17.2% | -1.9% | -8.0% | 9.0% | 0.0% | 21.8% |
| MS | 29.6% | 40.5% | -1.3% | -14.3% | 10.6% | -0.7% | 21.5% |
| ND | 11.3% | 15.1% | -0.6% | -7.3% | 6.2% | -0.3% | 21.2% |
| UT | 12.0% | 15.2% | -1.2% | -4.5% | 4.3% | -0.5% | 20.2% |
| VA | 16.5% | 21.2% | -0.5% | -6.7% | 5.7% | -1.7% | 20.0% |
| NE | 12.1% | 14.3% | -2.0% | -7.8% | 4.4% | -0.5% | 12.7% |

Table A7. Average Absolute Poverty Reduction Attributed to Redistributive Mechanisms by State, with Unadjusted State Transfers, Working-age Households with Children, 2016

| State | Market Poverty Rate | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | Disposable Poverty Rate |
|---|---|---|---|---|---|---|---|
| MS | 0.28 | 0.02 | 0.07 | -0.03 | 0.05 | 0.00 | 0.16 |
| LA | 0.26 | 0.01 | 0.06 | -0.02 | 0.04 | 0.00 | 0.17 |
| NM | 0.25 | 0.02 | 0.05 | -0.02 | 0.04 | 0.01 | 0.15 |
| KY | 0.24 | 0.03 | 0.06 | -0.03 | 0.04 | 0.00 | 0.14 |
| WV | 0.24 | 0.03 | 0.04 | -0.02 | 0.04 | 0.00 | 0.15 |
| AL | 0.23 | 0.02 | 0.06 | -0.03 | 0.04 | -0.01 | 0.13 |
| AR | 0.22 | 0.03 | 0.05 | -0.02 | 0.04 | 0.00 | 0.13 |
| AZ | 0.22 | 0.01 | 0.06 | -0.03 | 0.04 | 0.00 | 0.14 |
| TN | 0.22 | 0.02 | 0.05 | -0.02 | 0.05 | 0.00 | 0.13 |
| GA | 0.21 | 0.02 | 0.05 | -0.02 | 0.03 | 0.00 | 0.14 |
| OK | 0.21 | 0.02 | 0.06 | -0.03 | 0.03 | 0.00 | 0.12 |
| SC | 0.20 | 0.01 | 0.05 | -0.02 | 0.03 | 0.00 | 0.13 |
| FL | 0.20 | 0.01 | 0.05 | -0.02 | 0.04 | 0.00 | 0.12 |
| NC | 0.20 | 0.01 | 0.05 | -0.02 | 0.04 | 0.00 | 0.12 |
| OH | 0.19 | 0.01 | 0.05 | -0.02 | 0.05 | 0.00 | 0.11 |
| NY | 0.19 | 0.01 | 0.04 | -0.02 | 0.04 | 0.01 | 0.10 |
| TX | 0.19 | 0.01 | 0.05 | -0.02 | 0.04 | 0.00 | 0.11 |
| ME | 0.18 | 0.02 | 0.04 | -0.02 | 0.05 | 0.00 | 0.09 |
| CA | 0.18 | 0.01 | 0.05 | -0.02 | 0.04 | 0.00 | 0.10 |
| NV | 0.18 | 0.01 | 0.04 | -0.02 | 0.03 | 0.00 | 0.10 |
| SD | 0.18 | 0.01 | 0.04 | -0.01 | 0.04 | 0.00 | 0.10 |
| PA | 0.17 | 0.02 | 0.03 | -0.01 | 0.04 | 0.00 | 0.09 |
| MI | 0.17 | 0.02 | 0.04 | -0.02 | 0.03 | 0.00 | 0.09 |
| MT | 0.16 | 0.02 | 0.04 | -0.02 | 0.03 | 0.00 | 0.09 |
| WI | 0.16 | 0.01 | 0.04 | -0.02 | 0.04 | 0.01 | 0.08 |
| IN | 0.16 | 0.01 | 0.05 | -0.02 | 0.04 | 0.00 | 0.08 |
| MO | 0.15 | 0.02 | 0.03 | -0.02 | 0.03 | 0.00 | 0.09 |
| IL | 0.15 | 0.01 | 0.04 | -0.02 | 0.03 | 0.00 | 0.09 |
| WA | 0.15 | 0.01 | 0.04 | -0.02 | 0.03 | 0.00 | 0.08 |
| ID | 0.15 | 0.01 | 0.06 | -0.02 | 0.03 | 0.01 | 0.06 |
| OR | 0.15 | 0.01 | 0.04 | -0.02 | 0.03 | 0.00 | 0.08 |
| MA | 0.15 | 0.01 | 0.04 | -0.02 | 0.04 | 0.00 | 0.07 |
| DE | 0.15 | 0.01 | 0.04 | -0.02 | 0.03 | 0.00 | 0.09 |
| KS | 0.15 | 0.02 | 0.05 | -0.02 | 0.03 | 0.01 | 0.07 |
| NE | 0.14 | 0.02 | 0.04 | -0.02 | 0.02 | 0.00 | 0.08 |
| HI | 0.14 | 0.01 | 0.03 | -0.01 | 0.03 | 0.00 | 0.08 |
| RI | 0.13 | 0.02 | 0.03 | -0.01 | 0.03 | 0.00 | 0.06 |
| NJ | 0.13 | 0.01 | 0.03 | -0.02 | 0.03 | 0.00 | 0.07 |
| CT | 0.13 | 0.01 | 0.03 | -0.01 | 0.04 | 0.01 | 0.07 |
| CO | 0.13 | 0.02 | 0.03 | -0.02 | 0.03 | 0.00 | 0.07 |
| VT | 0.13 | 0.01 | 0.02 | -0.01 | 0.03 | 0.00 | 0.07 |
| MD | 0.13 | 0.02 | 0.03 | -0.01 | 0.02 | 0.00 | 0.06 |
| IA | 0.12 | 0.01 | 0.04 | -0.02 | 0.03 | 0.00 | 0.05 |
| VA | 0.12 | 0.01 | 0.03 | -0.01 | 0.03 | 0.00 | 0.07 |
| AK | 0.12 | 0.01 | 0.02 | -0.01 | 0.03 | 0.00 | 0.07 |
| ND | 0.12 | 0.01 | 0.03 | -0.01 | 0.02 | 0.00 | 0.08 |
| WY | 0.11 | 0.01 | 0.03 | -0.02 | 0.02 | 0.00 | 0.06 |
| UT | 0.10 | 0.00 | 0.04 | -0.02 | 0.02 | 0.00 | 0.06 |
| NH | 0.10 | 0.01 | 0.03 | -0.01 | 0.03 | 0.00 | 0.05 |
| MN | 0.09 | 0.01 | 0.03 | -0.01 | 0.02 | 0.01 | 0.04 |

Table A8. Average Absolute Poverty Reduction Attributed to Redistributive Mechanisms by State, with Unadjusted State Transfers, Working-age Households without Children, 2016

| State | Market Poverty Rate | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | Disposable Poverty Rate |
|---|---|---|---|---|---|---|---|
| WV | 0.30 | 0.10 | 0.00 | -0.01 | 0.04 | 0.00 | 0.18 |
| MS | 0.30 | 0.07 | 0.00 | -0.03 | 0.03 | 0.00 | 0.22 |
| AR | 0.25 | 0.08 | 0.00 | -0.02 | 0.02 | 0.00 | 0.18 |
| LA | 0.25 | 0.06 | 0.00 | -0.02 | 0.03 | 0.00 | 0.18 |
| KY | 0.23 | 0.06 | 0.00 | -0.02 | 0.02 | 0.00 | 0.18 |
| NM | 0.23 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.17 |
| AL | 0.23 | 0.07 | 0.00 | -0.02 | 0.02 | 0.00 | 0.16 |
| SC | 0.21 | 0.06 | 0.00 | -0.01 | 0.02 | 0.00 | 0.15 |
| OH | 0.21 | 0.06 | 0.00 | -0.01 | 0.03 | 0.00 | 0.14 |
| TN | 0.21 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.14 |
| NC | 0.20 | 0.06 | 0.00 | -0.01 | 0.02 | 0.00 | 0.14 |
| OK | 0.20 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.14 |
| RI | 0.20 | 0.05 | 0.00 | -0.01 | 0.04 | 0.00 | 0.12 |
| OR | 0.19 | 0.06 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| ME | 0.19 | 0.06 | 0.00 | -0.02 | 0.03 | 0.00 | 0.12 |
| FL | 0.19 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| GA | 0.19 | 0.05 | 0.00 | -0.01 | 0.01 | 0.00 | 0.14 |
| MI | 0.19 | 0.07 | 0.00 | -0.01 | 0.02 | 0.00 | 0.12 |
| IN | 0.19 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| MO | 0.18 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| KS | 0.18 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| AZ | 0.18 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| ID | 0.18 | 0.06 | 0.00 | -0.01 | 0.01 | 0.00 | 0.12 |
| NY | 0.17 | 0.04 | 0.00 | -0.01 | 0.03 | 0.00 | 0.12 |
| CA | 0.17 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.13 |
| MT | 0.17 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.11 |
| NV | 0.17 | 0.06 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| MA | 0.17 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.12 |
| VA | 0.16 | 0.04 | 0.00 | -0.01 | 0.01 | 0.00 | 0.13 |
| NJ | 0.16 | 0.04 | 0.00 | -0.01 | 0.03 | 0.00 | 0.10 |
| WY | 0.16 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.11 |
| PA | 0.16 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.11 |
| TX | 0.16 | 0.04 | 0.00 | -0.01 | 0.01 | 0.00 | 0.12 |
| IL | 0.16 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.12 |
| WI | 0.16 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| DE | 0.16 | 0.05 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| AK | 0.15 | 0.03 | 0.00 | 0.00 | 0.02 | 0.00 | 0.10 |
| HI | 0.15 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| IA | 0.15 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.10 |
| VT | 0.14 | 0.04 | 0.00 | -0.01 | 0.02 | 0.00 | 0.09 |
| WA | 0.14 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.09 |
| SD | 0.14 | 0.03 | 0.00 | -0.02 | 0.02 | 0.00 | 0.11 |
| MN | 0.13 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.08 |
| CT | 0.13 | 0.03 | 0.00 | 0.00 | 0.01 | 0.00 | 0.09 |
| CO | 0.13 | 0.04 | 0.00 | -0.01 | 0.01 | 0.00 | 0.09 |
| NE | 0.12 | 0.02 | 0.00 | -0.01 | 0.01 | 0.00 | 0.10 |
| UT | 0.12 | 0.03 | 0.00 | -0.01 | 0.01 | 0.00 | 0.09 |
| MD | 0.12 | 0.03 | 0.00 | -0.01 | 0.02 | 0.00 | 0.08 |
| ND | 0.11 | 0.03 | 0.00 | -0.01 | 0.01 | 0.00 | 0.09 |
| NH | 0.11 | 0.03 | 0.00 | 0.00 | 0.01 | 0.00 | 0.07 |

Table A9. Average Relative Poverty Reduction Attributed to Redistributive Mechanisms by State, with Unadjusted State Transfers, Working-age Households with Children, 2016

| State | Market Poverty Rate | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | Percentage Poverty Reduced |
|---|---|---|---|---|---|---|---|
| MN | 9.3% | 4.7% | 16.9% | -8.1% | 14.7% | 5.4% | 61.1% |
| ID | 15.1% | 6.8% | 32.7% | -11.8% | 20.3% | 3.5% | 57.5% |
| IA | 12.3% | 7.1% | 24.3% | -10.6% | 19.1% | 1.5% | 56.9% |
| NH | 10.2% | 7.7% | 14.9% | -8.3% | 19.0% | 0.0% | 55.4% |
| RI | 13.4% | 10.6% | 17.1% | -5.7% | 19.6% | 1.0% | 53.5% |
| KS | 14.6% | 8.9% | 30.4% | -12.4% | 15.4% | 3.9% | 53.3% |
| MA | 14.9% | 8.7% | 22.2% | -9.2% | 23.3% | 1.5% | 52.8% |
| WI | 16.0% | 6.7% | 24.6% | -10.6% | 24.5% | 3.4% | 51.2% |
| MD | 12.7% | 12.6% | 16.4% | -7.0% | 13.6% | 2.0% | 49.9% |
| CO | 13.3% | 9.2% | 18.8% | -9.4% | 19.9% | 0.9% | 49.8% |
| ME | 18.1% | 14.1% | 24.9% | -13.8% | 26.7% | 1.7% | 49.8% |
| NY | 19.0% | 8.4% | 26.0% | -12.1% | 26.7% | 7.0% | 49.7% |
| CT | 13.3% | 4.2% | 17.5% | -8.6% | 21.8% | 3.9% | 49.0% |
| NJ | 13.4% | 4.7% | 20.3% | -8.9% | 18.7% | 2.8% | 47.4% |
| OR | 15.0% | 6.5% | 24.5% | -11.1% | 20.7% | 1.2% | 47.1% |
| VT | 13.3% | 8.5% | 10.9% | -5.6% | 20.2% | 2.6% | 46.7% |
| IN | 15.7% | 7.3% | 29.1% | -14.4% | 21.4% | -0.1% | 46.4% |
| NE | 14.4% | 9.7% | 24.2% | -9.6% | 13.4% | 1.5% | 46.0% |
| OH | 19.3% | 7.7% | 27.8% | -12.6% | 29.4% | -0.1% | 45.6% |
| PA | 17.3% | 11.4% | 20.6% | -8.8% | 23.4% | -0.1% | 45.5% |
| MI | 17.2% | 11.7% | 21.6% | -9.5% | 20.1% | 2.1% | 45.1% |
| WA | 15.2% | 8.3% | 22.6% | -10.5% | 19.9% | 0.0% | 44.8% |
| OK | 20.8% | 11.2% | 36.4% | -15.7% | 20.4% | 2.1% | 44.2% |
| VA | 12.2% | 6.5% | 17.1% | -7.8% | 16.1% | 0.0% | 44.2% |
| MS | 27.6% | 13.1% | 41.5% | -15.4% | 32.5% | -0.8% | 43.4% |
| HI | 13.5% | 5.4% | 16.8% | -6.6% | 18.9% | 0.2% | 43.3% |
| MT | 16.1% | 12.1% | 23.8% | -12.8% | 18.6% | -0.5% | 43.2% |
| WY | 10.6% | 5.8% | 18.5% | -11.2% | 13.8% | 0.0% | 43.0% |
| IL | 15.2% | 5.0% | 25.1% | -12.2% | 20.6% | 0.2% | 42.9% |
| CA | 18.1% | 7.6% | 28.2% | -12.8% | 22.4% | 0.5% | 42.8% |
| TN | 22.0% | 10.2% | 30.2% | -12.1% | 27.1% | 0.0% | 42.5% |
| KY | 24.4% | 16.2% | 37.6% | -15.7% | 23.6% | -0.7% | 42.3% |
| NV | 18.0% | 8.8% | 24.9% | -9.6% | 20.2% | 0.0% | 41.7% |
| UT | 10.2% | 2.7% | 22.3% | -11.9% | 11.9% | -0.1% | 41.0% |
| NC | 19.8% | 7.2% | 30.5% | -13.6% | 24.4% | -0.4% | 40.9% |
| TX | 18.8% | 7.0% | 31.7% | -14.2% | 21.0% | 0.0% | 40.9% |
| MO | 15.5% | 9.8% | 18.2% | -9.2% | 19.0% | -0.2% | 40.9% |
| AL | 22.8% | 12.6% | 37.1% | -15.1% | 23.8% | -3.0% | 40.9% |
| DE | 14.8% | 6.7% | 25.7% | -13.6% | 17.2% | -0.1% | 40.9% |
| SD | 17.6% | 5.7% | 23.3% | -7.6% | 21.1% | 0.0% | 40.7% |
| AR | 22.4% | 16.3% | 29.3% | -14.6% | 22.0% | -0.4% | 39.7% |
| NM | 24.8% | 11.2% | 31.3% | -13.8% | 26.3% | 3.3% | 39.6% |
| WV | 23.9% | 17.5% | 25.9% | -12.6% | 25.5% | -0.9% | 39.2% |
| AK | 12.0% | 5.3% | 13.3% | -6.3% | 15.4% | 0.0% | 39.0% |
| FL | 19.8% | 8.5% | 28.5% | -14.4% | 20.9% | 0.0% | 37.1% |
| SC | 20.0% | 8.7% | 28.1% | -13.3% | 20.3% | -0.1% | 37.0% |
| GA | 21.3% | 9.7% | 32.1% | -14.3% | 18.6% | -0.7% | 36.0% |
| LA | 25.8% | 8.4% | 34.6% | -14.0% | 25.9% | -0.2% | 35.8% |
| AZ | 22.1% | 6.5% | 34.7% | -18.5% | 23.8% | 0.1% | 35.7% |
| ND | 12.0% | 4.7% | 16.7% | -8.8% | 9.6% | 0.0% | 31.3% |

Table A10. Average Relative Poverty Reduction Attributed to Redistributive Mechanisms by State, with Unadjusted State Transfers, Working-age Households without Children, 2016

| State | Market Poverty Rate | Federal Transfers | Federal Income Taxes | FICA | State Transfers | State Income Taxes | Percentage Poverty Reduced |
|---|---|---|---|---|---|---|---|
| NV | 16.9% | 33.0% | -0.7% | -5.7% | 10.4% | 0.0% | 40.0% |
| NJ | 16.3% | 23.6% | -1.4% | -3.6% | 17.1% | -0.4% | 39.7% |
| WV | 29.8% | 53.6% | -0.9% | -7.3% | 19.8% | -1.0% | 39.4% |
| MN | 13.2% | 18.4% | -0.4% | -3.2% | 12.8% | 0.8% | 39.1% |
| MI | 18.8% | 35.6% | -0.6% | -6.0% | 9.7% | 0.4% | 38.2% |
| DE | 15.6% | 27.4% | -1.3% | -4.4% | 11.0% | -0.5% | 37.6% |
| RI | 19.6% | 25.2% | -0.2% | -6.1% | 21.2% | -0.3% | 37.2% |
| WI | 15.7% | 27.4% | -0.7% | -4.8% | 9.1% | 0.7% | 37.0% |
| VT | 13.8% | 22.5% | -1.3% | -7.4% | 13.0% | 1.1% | 36.8% |
| MT | 17.0% | 29.0% | -0.2% | -5.9% | 10.9% | -0.5% | 36.0% |
| HI | 14.8% | 21.8% | -0.7% | -5.2% | 13.5% | -0.3% | 35.8% |
| NH | 11.3% | 18.3% | -0.7% | -1.5% | 6.0% | 0.0% | 35.8% |
| ME | 18.9% | 33.7% | -2.6% | -11.6% | 14.5% | 1.7% | 34.6% |
| ID | 18.0% | 33.2% | -1.6% | -6.1% | 7.8% | 0.4% | 34.4% |
| CT | 13.1% | 17.5% | 0.2% | -1.4% | 8.0% | 0.2% | 34.1% |
| WY | 16.2% | 26.6% | -0.8% | -6.2% | 10.4% | 0.0% | 33.9% |
| OR | 19.0% | 32.5% | -1.4% | -6.7% | 11.4% | -1.6% | 33.0% |
| AK | 15.0% | 17.0% | -0.5% | -1.9% | 12.0% | 0.0% | 32.6% |
| WA | 13.8% | 17.4% | -0.7% | -4.0% | 11.7% | 0.0% | 32.4% |
| NC | 20.3% | 30.6% | -1.3% | -5.1% | 12.7% | -1.0% | 32.4% |
| MO | 18.5% | 28.3% | -0.5% | -6.1% | 10.3% | 0.0% | 31.8% |
| OH | 20.6% | 30.4% | -1.8% | -6.8% | 13.8% | -0.2% | 31.5% |
| IA | 14.6% | 21.1% | -0.9% | -6.0% | 11.9% | -1.2% | 31.2% |
| NY | 17.4% | 20.8% | -0.9% | -4.6% | 14.5% | -0.3% | 31.0% |
| AR | 25.3% | 41.9% | 0.0% | -9.4% | 10.2% | -0.3% | 30.6% |
| PA | 16.1% | 23.0% | -0.7% | -6.3% | 11.4% | -0.7% | 30.5% |
| TN | 20.5% | 29.9% | -0.6% | -6.9% | 11.7% | 0.0% | 30.4% |
| MD | 11.9% | 15.8% | -0.7% | -5.0% | 10.0% | -0.7% | 30.1% |
| SC | 21.3% | 33.1% | -0.8% | -7.1% | 10.0% | -0.2% | 30.1% |
| OK | 20.1% | 28.6% | -0.3% | -7.8% | 12.0% | 0.0% | 29.7% |
| FL | 18.8% | 27.0% | -1.2% | -5.8% | 10.5% | 0.0% | 29.6% |
| KS | 18.3% | 25.5% | -0.1% | -6.4% | 10.3% | 0.1% | 29.4% |
| AL | 22.7% | 37.4% | -1.6% | -10.5% | 13.5% | -2.4% | 29.3% |
| IN | 18.7% | 28.6% | -1.3% | -6.8% | 11.5% | -2.0% | 29.3% |
| MA | 16.6% | 18.0% | -0.7% | -4.0% | 13.6% | -0.6% | 29.1% |
| AZ | 18.1% | 25.8% | -0.9% | -6.4% | 9.6% | -0.2% | 28.4% |
| CO | 13.1% | 21.9% | -1.0% | -7.1% | 6.9% | -0.5% | 28.4% |
| LA | 25.0% | 34.2% | -1.8% | -9.2% | 15.7% | -1.2% | 27.7% |
| NM | 23.1% | 29.6% | -0.5% | -8.1% | 12.7% | 0.2% | 26.9% |
| IL | 15.7% | 20.8% | -0.8% | -5.4% | 9.0% | -1.2% | 25.9% |
| GA | 18.8% | 28.2% | -0.5% | -7.2% | 6.2% | -0.5% | 25.4% |
| TX | 15.9% | 20.0% | -0.7% | -5.2% | 7.2% | 0.0% | 24.6% |
| ND | 11.3% | 15.6% | -0.1% | -6.5% | 6.4% | -0.3% | 24.5% |
| CA | 17.0% | 18.4% | -1.4% | -5.6% | 11.1% | 0.0% | 24.1% |
| MS | 29.6% | 40.7% | -1.5% | -14.3% | 14.6% | -0.7% | 24.1% |
| UT | 12.0% | 15.9% | -0.8% | -4.1% | 5.0% | -0.3% | 24.0% |
| KY | 23.5% | 30.3% | -0.9% | -11.1% | 10.5% | -1.2% | 21.5% |
| VA | 16.5% | 21.3% | -1.1% | -6.0% | 6.9% | -2.0% | 21.1% |
| SD | 13.7% | 15.8% | -2.1% | -8.4% | 8.6% | 0.0% | 18.6% |
| NE | 12.1% | 13.5% | -1.8% | -8.0% | 7.2% | -0.4% | 15.9% |

Figure A1. Absolute Market and Disposable Income Poverty by State, Unadjusted State Transfers, Working-age Households with and without Children, 2016

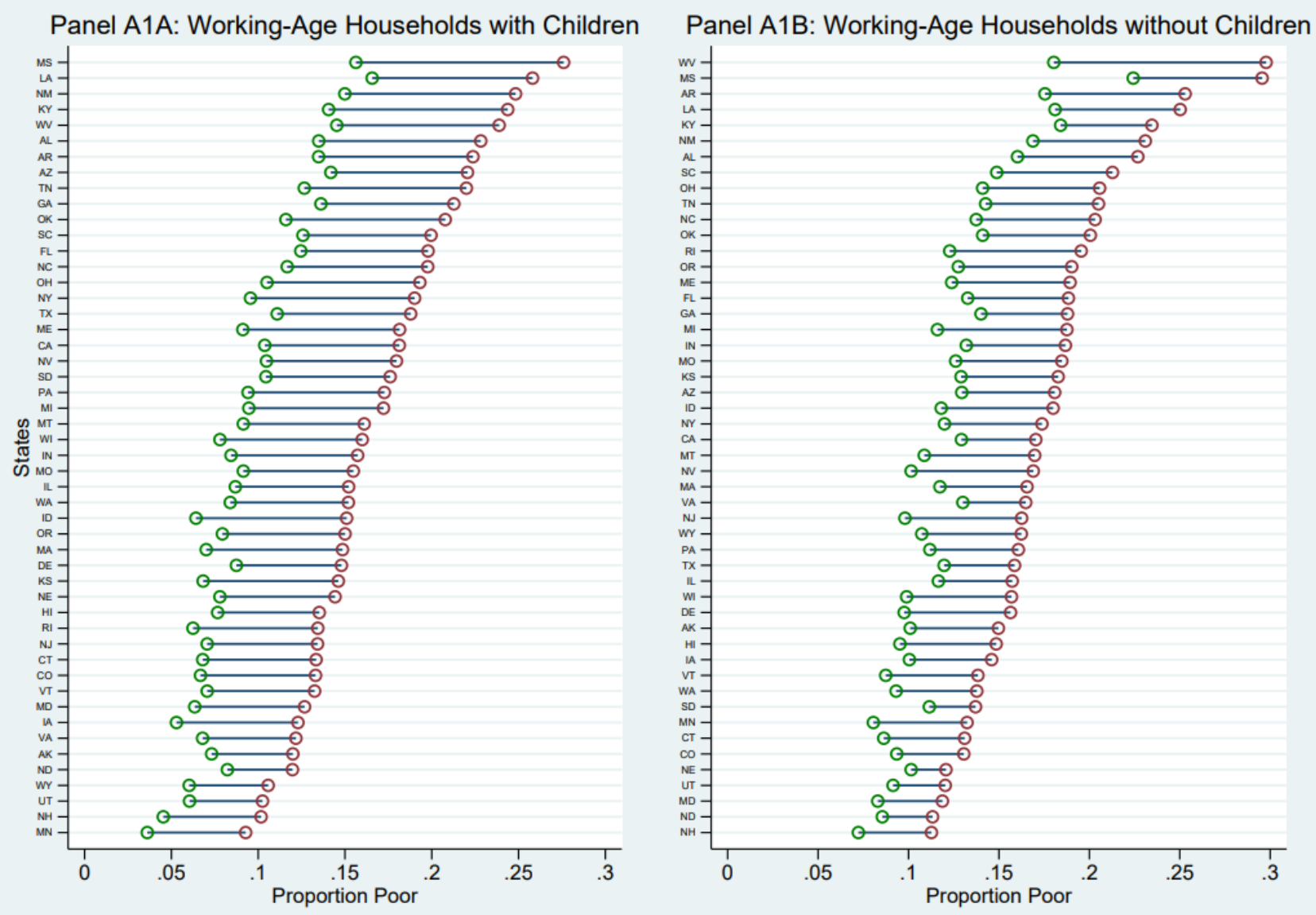


Figure A2. Relative Poverty Reduction by State, Unadjusted State Transfers, Working-age Households with and without Children, 2016

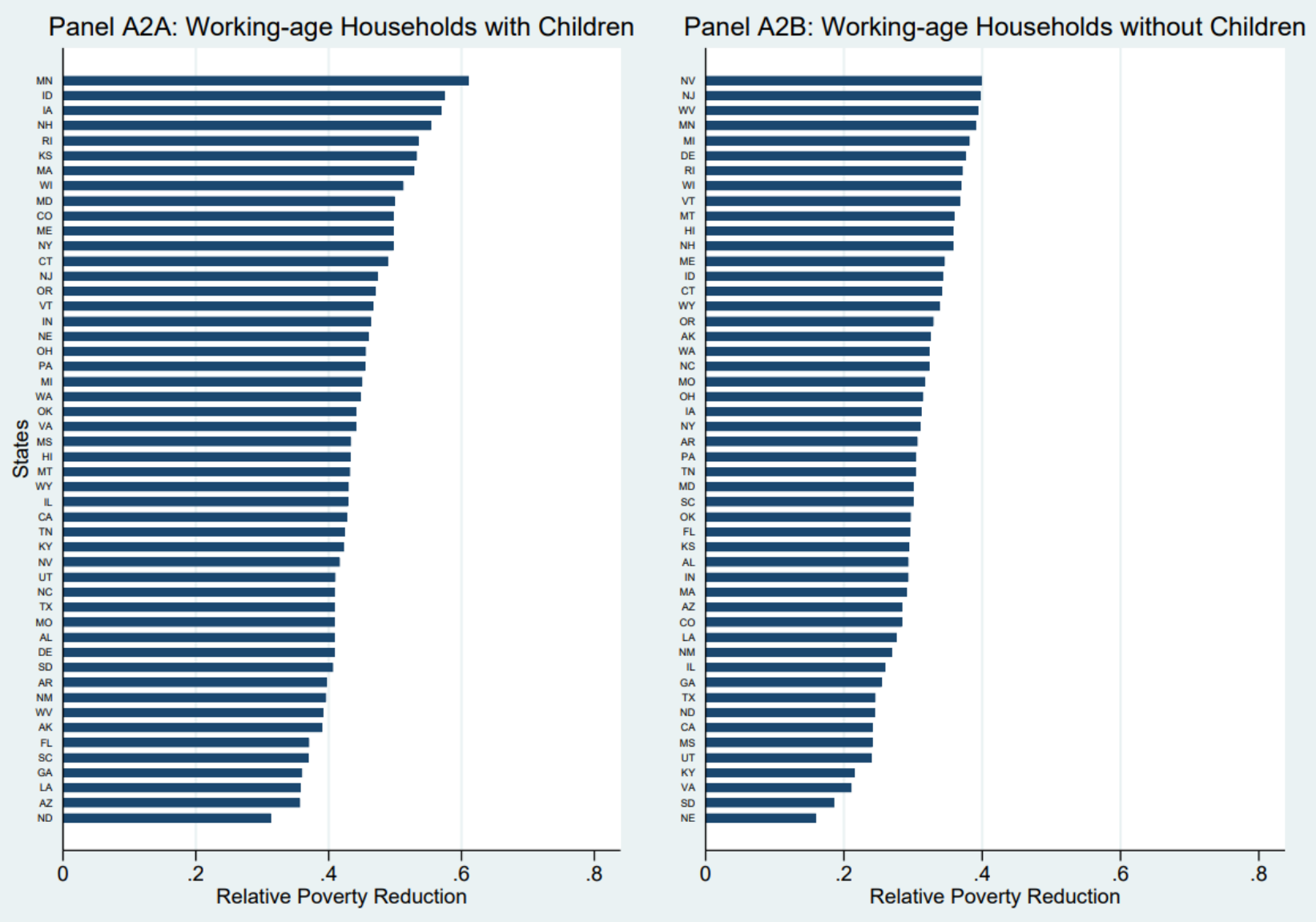


Figure A3. Average Absolute Poverty Reduction Attributed to Redistributive Mechanisms by State, Unadjusted State Transfers, Working-age Households with and without Children, 2016

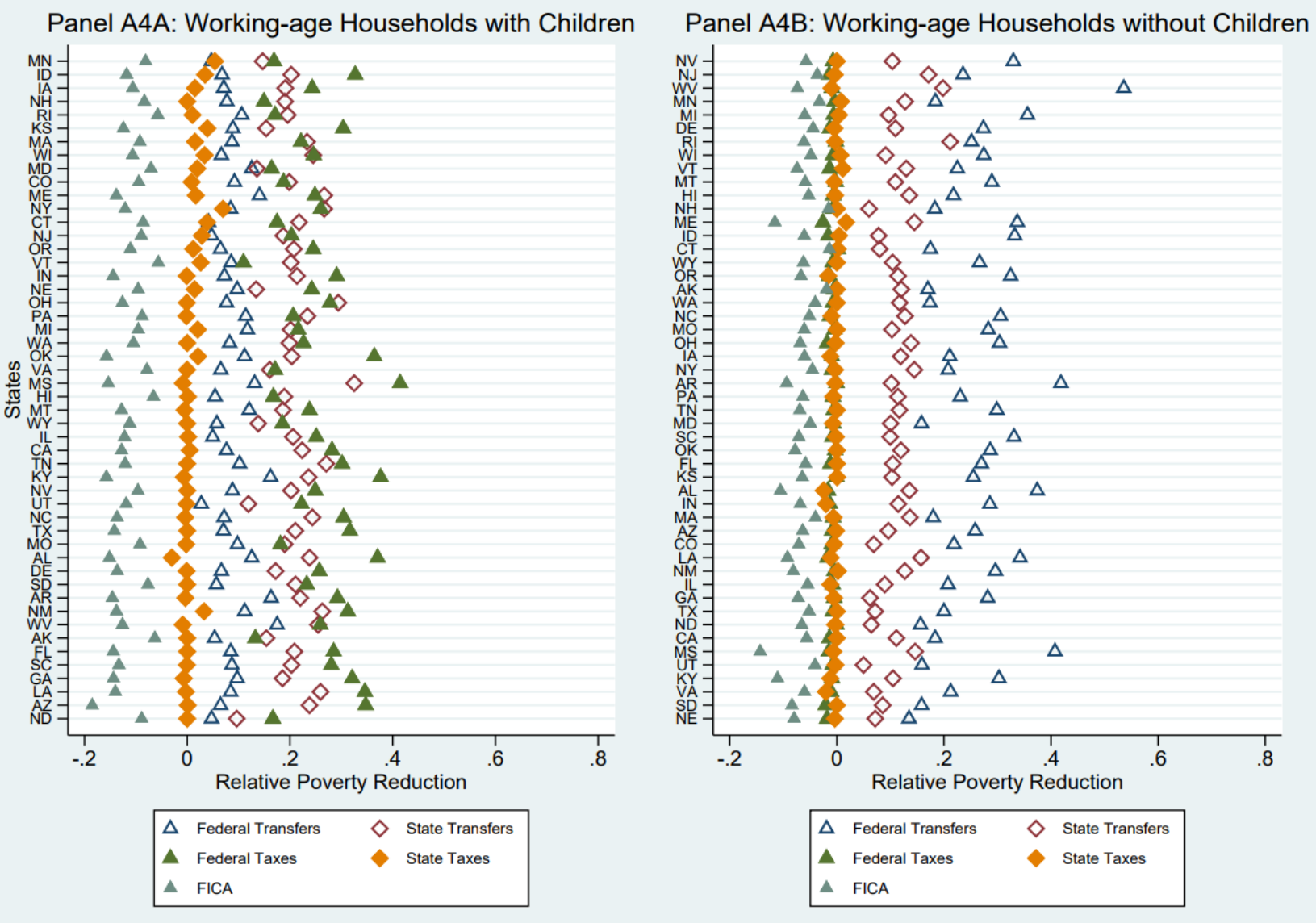



Figure A4. Average Relative Poverty Reduction Attributed to Redistributive Mechanisms by State, Unadjusted State Transfers, Working-age Households with and without Children, 2016