State Tax Liability and Post-Tax Income Estimates by State using the Current Population Survey Annual Social and Economic Supplement Tax Model

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September 2026

SEHSD Working Paper 2026-19

Abstract

State and federal tax policies have a substantial effect on the economic wellbeing of U.S. households. Taxes owed and tax credits received vary widely across states, both because of underlying variation in pretax income and because of differences in tax policies at the state level. However, tax liability is challenging to measure. The Current Population Survey Annual Social and Economic Supplement (CPS ASEC), the source of official data on household income and poverty, does not ask directly about taxes. Therefore, the Census Bureau models federal and state income taxes with the CPS ASEC Tax Model. This paper presents new state-level estimates that explore the effect of state tax systems on U.S. households. We first benchmark the accuracy of the CPS ASEC Tax Model to state government data. Then, we present estimates of household-level tax liability and post-tax income by state. These results will be used to target improvements to the tax model.

[1] This paper is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any opinions and conclusions expressed herein are those of the author and do not reflect the views of the U.S. Census Bureau. All comparative statements in this paper have undergone statistical testing, and, unless otherwise noted, all comparisons are statistically significant at the 10 percent significance level. The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data used to produce this product (Data Management System (DMS) number: P-7534374, Disclosure Review Board (DRB) approval number: CBDRB-FY26-SEHSD 003-098).

I. Introduction

Federal and state[2] tax policies in the United States shape households' economic resources. Therefore, to understand household economic wellbeing, it is critical to accurately measure taxes owed, tax credits received, and household income after taxes.[3] Furthermore, post-tax income and tax liability vary across states, both because of variation in pretax income and because of differences in state and local income tax policies.

However, accurately measuring post-tax income is challenging. The Current Population Survey Annual Social and Economic Supplement (CPS ASEC) is the official source of data on household income and poverty, but does not ask directly about tax filing status, taxes owed, or tax credits received. Therefore, the Census Bureau models federal, state, and select local income taxes and credits with the CPS ASEC Tax Model. The model estimates taxes owed and credits received based on other information collected in the survey, such as income from different sources and household composition.

In this paper, we present new state-level estimates of state income tax liability, state tax credits, and post-tax income.[4] These state estimates are calculated using a pooled sample of the 2024 through 2026 CPS ASECs, reflecting income and taxes in 2023, 2024, and 2025.[5] We first report average annual estimates of aggregate state income tax liability, as well as total spending on and total recipients of three common state tax credits. For these analyses, we also report on how close these estimates come to published benchmarks from state sources. Next, we present several household-level analyses that explore how the state and federal tax systems affect household income, and how this varies by state and across the income distribution. Specifically, we compare median pretax and post-tax income by state, showing the impact of federal, state, and local tax liability and credits. We also report median state and federal tax liability at the household level by state. Finally, we examine how state taxes change household income at different points in the income distribution.

We find that state tax liabilities and credits vary substantially across states and contribute to large differences in post-tax income by state. State tax systems differ in their progressivity and overall level of taxation, which is evident when we examine differences in state taxation across the income distribution. The extent to which the CPS ASEC Tax Model accurately matched state benchmarks for total state tax liability and state credit receipt also varied across states. Our model's estimated state tax liability was 98% of published state benchmarks overall. The estimated state liability was between 80% and 120% of the state benchmark for 33 states and the District of Columbia.[6] The CPS ASEC Tax Model tended to underestimate credit amounts and receipt for state earned income tax credits (EITCs), be close to benchmarks for state child tax credits (CTCs), and overestimate state child and dependent

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[2] This paper covers income taxes in the 50 states and the District of Columbia. When we refer to "states" throughout the paper, this includes the District of Columbia.

[3] For national median post-tax income estimates, refer to Melissa Kollar and Zach Scherer, "Income in the United States: 2025," Current Population Reports, P60-289, U.S. Census Bureau, Washington, DC, September 2026, <https://www.census.gov/library/publications/2026/demo/p60-289.html>.

[4] In this paper, we are focusing specifically on state income taxes (also referred to as simply "state taxes"). We do not cover other types of taxes levied by states.

[5] We use a three-year pooled sample of the CPS ASEC to produce more reliable state-level estimates. Given the sample size of the CPS ASEC, it is recommended to pool three years of data to produce state-level estimates.

[6] This includes states where the model's estimate as a percent of the benchmark was not statistically different from 80% or 120%.

care credits (CDCCs). These findings are in line with other research comparing various tax models to available benchmarks for tax year 2012 (Wheaton & Stevens 2016).

This paper presents the first publicly available estimates of state income tax liability and state tax credits from the CPS ASEC Tax Model since tax year 2012 (Wheaton & Stevens 2016). Variables capturing the value of state credits for tax units are not included in the public-use CPS ASEC microdata, though they are used in the model to calculate state income tax liability after all credits.

This paper highlights both the importance and the challenge of accurately measuring state tax systems when studying household economic wellbeing. Our results will be used to inform future improvements to the CPS ASEC Tax Model.

II. Background & Methods

A. CPS ASEC Tax Model

The Current Population Survey Annual Social and Economic Supplement (CPS ASEC) does not ask respondents about filing status, tax liabilities, or tax credits. To estimate post-tax income, therefore, the Census Bureau uses its own microsimulation model to estimate tax liability and credits. The model estimates tax variables based on information collected in the survey as well as current tax policy. Census staff review federal and state tax forms and instructions to update the model each year to capture changes in federal, state, and select local income tax policies. Policy changes can range from standard shifts in tax brackets to the introduction of new tax credits and deductions.[7]

The CPS ASEC Tax Model computes federal, state, and local taxes in multiple steps. First, payroll taxes for each person with earned income are calculated. Filing units are constructed and assigned a tax filing status based on reported marital status and relationships within households. For each filing unit, adjusted gross income and other income items are calculated. Then, a statistical match with the Internal Revenue Service's (IRS) Statistics of Income (SOI) Public Use File (PUF) data is conducted to obtain values for itemized deduction components and capital gains that are not available in the CPS ASEC. An iterative calculation process is applied to calculate federal, state, and local income taxes, ensuring the consistency of these taxes. The initial federal tax estimates are calculated using state and local taxes imputed from the SOI PUF. These initial federal tax estimates are used to compute state and local taxes and credits and then the final federal tax estimates are calculated using the results from the state and local tax calculation in federal itemized deductions. After computing the final estimate of federal taxes and credits, units are classified as tax filers or non-filers based on federal filing requirements and eligibility for refundable credits (Lin 2022; O'Hara 2004). With this approach, the tax model generates variables that predict tax filing status, tax liabilities, and tax credits received.

Of particular interest to this paper is the calculation of state tax and credits. For each state with an income tax, the computation typically begins with the state's definition of adjusted gross income or income. Next, the tax model applies state adjustments to income, such as exemptions, deductions, and subtractions, to estimate state taxable income. This includes computing the state-specific standard deductions and itemized deductions, based on state

[7] Details on the tax model methodology and more information on changes for 2025 can be found at <http://www.census.gov/topics/income-poverty/income/guidance/tax-model.html>.

policy and whether filers claimed itemized deductions on their federal return. Using state taxable income, each unit's state tax liability is estimated. Both non-refundable and refundable state credits are computed. State tax liability is reduced by the non-refundable state credits to a minimum of zero liability and then refundable state credits are applied, allowing some units to have a negative liability (resulting in a state tax refund).

In addition to the CPS ASEC Tax Model, other tax models have been developed, including the National Bureau of Economic Research's TAXSIM (Feenberg & Coutts 1993), the Urban Institute's Transfer Income Model Version 3 (TRIM3) (Zedlewski & Giannarelli 2015) and Analysis of Transfers, Taxes, and Income Security (ATTIS) model (Pyati 2020), Jon Bakija's Income Tax Calculator (Bakija 2019), and PolicyEngine.[8] While each of these tax models estimates state income taxes, each has a different approach and level of detail in modeling state income taxes and different timelines for capturing changes to state tax policies. Other recent efforts, like the Census Bureau's National Experimental Well-Being Statistics and the Comprehensive Income Dataset, have linked survey and administrative tax data, which researchers have used to generate alternate estimates of taxes (Bee et al. 2025a; Meyer et al. 2020).

B. Tax Parameter Workbook

The CPS ASEC Tax Model is comprised of two primary components: a collection of SAS programs and a workbook of federal and state tax parameters. The federal and state parameter workbook holds the key parameters used in the calculation of federal, state, and local income taxes for the 2023, 2024, and 2025 CPS ASEC tax models.[9] Federal tax parameters include standard deduction amounts, tax brackets and rates, eligibility thresholds, and amounts used to calculate tax credits, among others. State tax parameters include state-specific deductions, exemptions, exclusions, tax rates, and credits included in the tax model for that particular year. In addition, the workbook describes where the parameters can be found in tax forms and/or instructions, making it easy to reference additional information on the parameter and to update the parameter each year.

C. Measures of State Income Tax Liability, State Tax Credits, and Post-tax Income

Across all analyses, CPS ASEC estimates are calculated using a pooled sample of households interviewed in 2024, 2025, and 2026, reflecting income and taxes in 2023, 2024, and 2025.[10] We use this pooled sample to increase sample size and produce more precise state estimates. Given the sample size of the CPS ASEC, it is recommended to pool three years of data to produce state-level estimates. All dollar amounts, including CPS ASEC estimates and benchmarks, are adjusted for inflation using the Chained Consumer Price Index for All Urban Consumers (C-CPI-U). All estimates are then averaged or calculated across years and reported as an annual amount in 2025 dollars.

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[8] For more information on PolicyEngine, refer to <https://www.policyengine.org/us>.

[9] Refer to <https://www2.census.gov/library/working-papers/2026/demo/Federal_and_State_Tax_Parameter_Workbook_TY2025.xlsx> for the CPS ASEC Tax Model parameter workbook and additional documentation.

[10] The 2024 and 2025 data are weighted using Vintage 2025 population controls. Weights incorporating Vintage 2025 controls are not available for 2023. The 2023 data are weighted using Vintage 2023 population controls. For more information, refer to <http://www.census.gov/library/working-papers/2026/demo/sehsd-wp2026-16.html>.

In this paper, we report estimates of the average annual sum of total state income tax liability by state. *State income tax liability* is the sum of state income taxes owed, after all credits, for a given tax year. We report total state tax liability as calculated by the CPS ASEC Tax Model[11] and compare the CPS ASEC estimates to state benchmarks sourced from the Annual Survey of State Government Tax Collections.[12] These benchmark estimates use state fiscal years as the reference period, in contrast to our CPS ASEC data which aligns with the tax year (i.e., calendar year). Nine states do not collect state income taxes as of tax year 2025; these states are excluded from this analysis.[13]

Next, we analyze the *sum of state tax credits received* and the *number of credit recipients* for three common state tax credits: state EITCs, state CTCs, and state CDCCs. For non-refundable state tax credits, the tax model generally captures the total amount that units are eligible for, even if they don't receive the full amount because it is limited by state tax liability. We report the total value of each credit as estimated by the CPS ASEC Tax Model and compare it to benchmarks published by each state, when available. Most state benchmarks are sourced from state tax and revenue offices; we report the sources of the benchmark data in detail in Appendix Table 6. We do not report credit estimates for states where the credit policy changed substantially over the course of the three-year study period (for example, if the state established the credit partway through the study period or the eligibility rules or benefit calculation changed considerably). We also omit estimates in cases where the total number of unweighted tax units used to generate the estimate across the three years was below 15. States that do not collect state income taxes or do not have each credit are excluded from these analyses.

Next, we estimate several measures at the household level to explore the effect of the state and federal tax systems on households' resources by state. We first report estimates of *median household pretax and post-tax income* by state.[14] The Census Bureau defines post-tax income as money income net of federal, state, and local income taxes and credits; payroll taxes collected through the Federal Insurance Contributions Act (FICA); and temporary payments administered by tax agencies such as rebates or stimulus payments (Kollar & Scherer 2025). To calculate post-tax household income, the sum of these liabilities and credits for all filing units within a household is subtracted from each household's pretax money income.

We also estimate median household tax liability.[15] *State tax liability* is net state income taxes owed by a household after credits; if a household receives a net credit this measure can be negative. *Federal tax liability* is a household's net federal income taxes owed after all federal credits; we report this tax liability combined with FICA payroll taxes. *Total income tax liability* is a

[11] In four states (Indiana, Iowa, Maryland, and New York), the CPS ASEC Tax Model also includes local income taxes in state income tax calculations. For more information on what is included and how local income tax is estimated for each state, refer to <https://www2.census.gov/programs-surveys/demo/guidance/income-poverty/user-note/TY2023-tax-model-external-user-notes.pdf>.
[12] Refer to <https://www.census.gov/programs-surveys/stc.html> for more information.
[13] The nine states that do not collect state income taxes for at least a portion of our years of analysis (2023 – 2025) are: Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming. Eight states (Alaska, Florida, Nevada, South Dakota, Tennessee, Texas, Washington, and Wyoming) did not collect state income taxes for all years of our analysis, and one state (New Hampshire) collected state income taxes in 2023 and 2024 but eliminated their income tax as of 2025. Washington has a state EITC beginning in 2023, despite not having a state income tax, but we do not include it in our analysis because it is only modeled in the CPS ASEC tax model beginning in 2024.
[14] Median household income measures were calculated using linear interpolation and $2,500 intervals.
[15] Median household tax liability measures were calculated using linear interpolation and $2,500 intervals.

household's combined federal, state, and payroll tax liability as estimated by the CPS ASEC Tax Model.

Finally, we report the *median percent change in household income after state taxes.*[16] This measure captures the amount that household incomes changed after subtracting their state tax liability. We report this measure by state and by total income decile (determined by the nationwide distribution of household income). This analysis allows us to explore how state tax liabilities varied across the income distribution.

III. Results

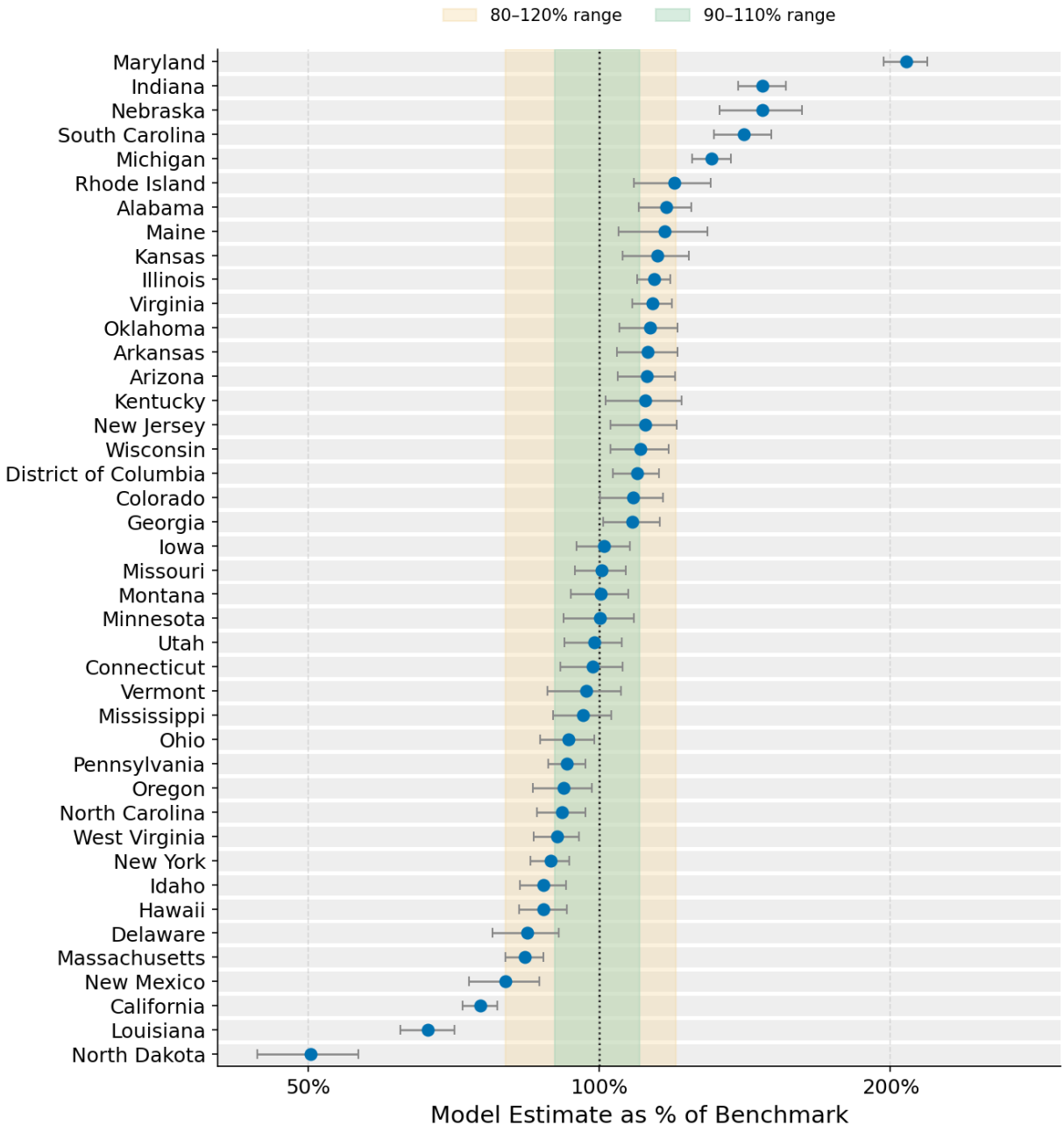
A. Total State Income Tax Liability

Figure 1 and Appendix Table 1 present estimates of total state tax liability as calculated by the CPS ASEC Tax Model compared with benchmarks from the Annual Survey of State Government Tax Collections. We report the model's estimate, the benchmark, and the model's estimate as a percent of the benchmark. The CPS ASEC Tax Model captured 98% of annual aggregate state income tax liability averaged across the three years for all states with income tax systems. Figure 1 depicts the model's estimates as a percent of the benchmark.

The model's estimated state tax liability was higher than the benchmark in 19 states and the District of Columbia, not statistically different than the benchmark in 8 states, and lower than the benchmark in 14 states. Out of 41 states and the District of Columbia, 31 states' and the District of Columbia's modeled liability was between 90% and 110% of the benchmark or not statistically different from 90% or 110%. Thirty-three states' and the District of Columbia's estimates fell between 80% and 120% of the benchmark (or were not statistically different from 80% or 120%). However, there are 8 states where modeled tax liability was outside of this range. For example, in Louisiana, modeled tax liability was 67% of the benchmark, and North Dakota's tax liability was 50% of the benchmark. At the high end, Maryland's modeled tax liability was about double the benchmark.

[16] Median change in household income after state taxes is not calculated using interpolation.

Figure 1.
State Individual Income Tax Collections: CPS ASEC Tax Model as Percent of Benchmark



Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements (CPS ASEC) and U.S. Census Bureau, Annual Survey of State Government Tax Collections, 2023 - 2025 State Government Tax Tables.
Notes: Refer to Appendix Table 1 for underlying data. X axis is on log scale. Values represent annual calculations averaged across three years. Estimates from the CPS ASEC Tax Model in four states (Indiana, Iowa, Maryland, and New York) include both state and local income tax liability. There are nine states excluded from the figure because they do not collect state income taxes for at least a portion of our years of analysis (2023 – 2025). Eight states (Alaska, Florida, Nevada, South Dakota, Tennessee, Texas, Washington, and Wyoming) did not collect state income taxes for all years of our analysis, and one state (New Hampshire) collected state income taxes in 2023 and 2024 but eliminated their income tax as of 2025.

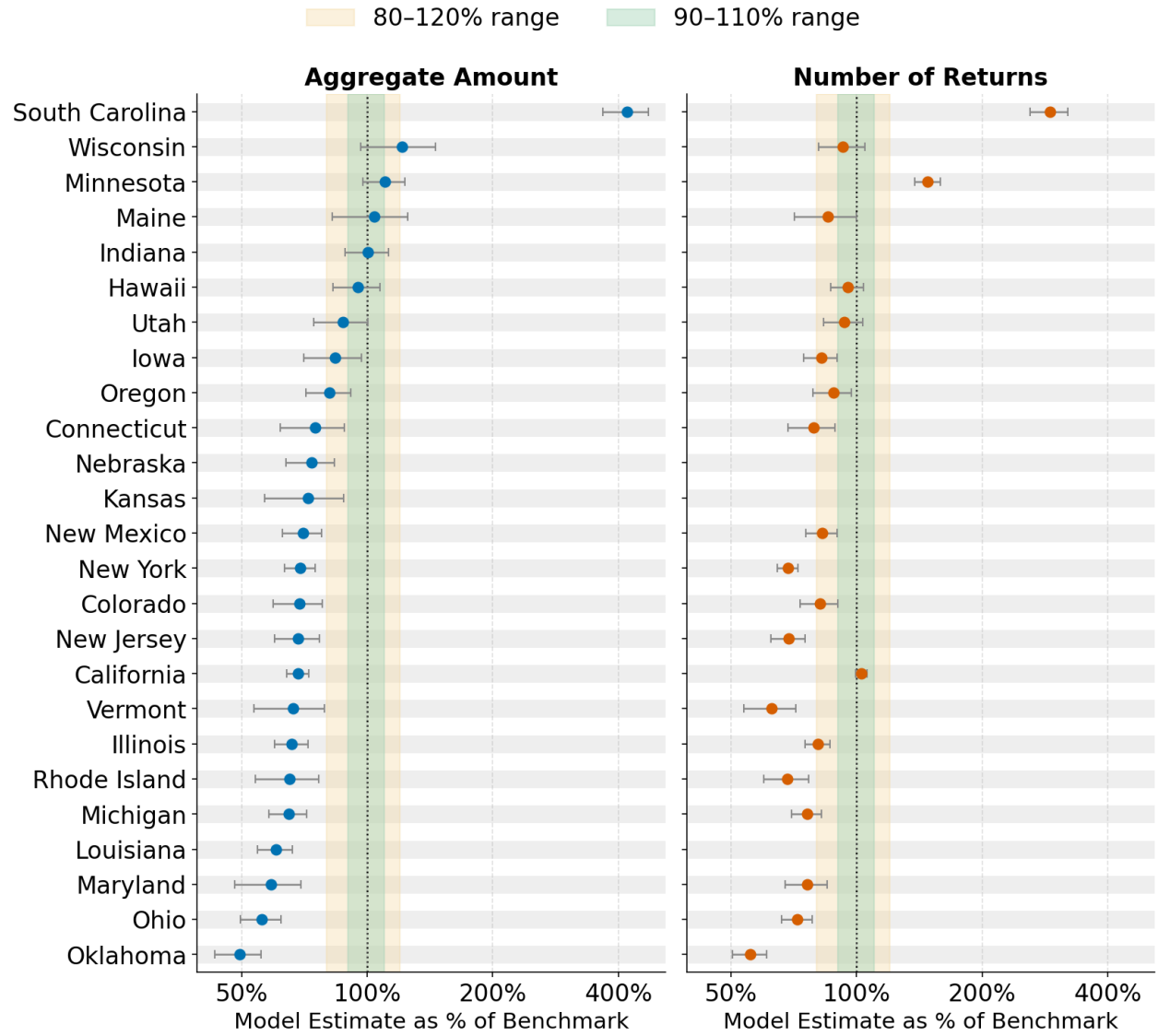
B. State Tax Credit Amounts and Recipients

Appendix Tables 2 through 4 and Figures 2 through 4 compare tax model estimates of state tax credits to comparable benchmarks as published by states. The first set of columns in the tables estimates the total dollar amount of the credit received across all households, and the second shows the estimated number of tax returns receiving the credit. These tables include only a subset of state EITCs, CTCs, and CDCCs available in 2023 through 2025, for reasons described above in Section II. Other tax credits available to filers that do not fit into one of these three categories are not included in this paper. The corresponding figures plot the model's estimates as a percent of the benchmark for the total aggregate credit amount (left panel) and number of returns (right panel).

Appendix Table 2 and Figure 2 focus on state EITCs, which vary across states but generally are credits given to lower-income working families. Many are calculated as a percentage of the unit's federal EITC. Aggregate credit amounts from the tax model ranged from 49% of the benchmark (Oklahoma) to 419% of the benchmark (South Carolina).[17, 18] The model's estimated number of recipient tax units ranged from 56% (Oklahoma) to 291% of the benchmark (South Carolina).[19] Of the states where we had comparable benchmark data, the CPS ASEC tax model tended to underestimate total credit spending and the number of recipients of the credits. The model's estimated credit spending was lower than the benchmark in 18 states, higher in 1 state, and not significantly different in 6 states. The model's number of credit recipients was lower than the benchmark in 15 states, higher in 2 states, and not significantly different in 4 states.

[17] The percentage of the benchmark for Oklahoma was not statistically different from the percentage for Maryland and Ohio.
[18] For non-refundable state tax credits (including South Carolina), we generally capture the total tax credit amount that units are eligible for, even if they don't receive the full amount because it is limited by their state tax liability.
[19] The percentage of the benchmark for Oklahoma was not statistically different from the percentage for Vermont.

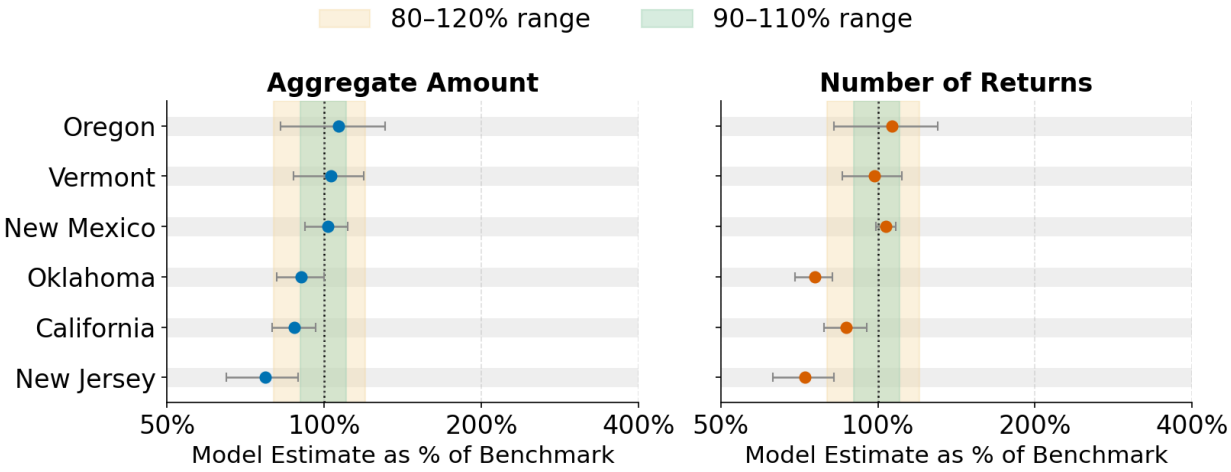
Figure 2.
State Earned Income Tax Credits: CPS ASEC Tax Model as Percent of Benchmark



Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements (CPS ASEC). Benchmark data sourced from published estimates of tax credit spending and recipients from state tax offices (refer to Appendix Table 6 for full list of benchmark data sources).
Notes: Refer to Appendix Table 2 for underlying data. X axis is on log scale. Values represent annual calculations averaged across three years. States are included if the credit was available in all three tax years (2023 through 2025) and there were not substantial changes in the eligibility for or calculation of the credit across these years. Benchmark data for Indiana, Oklahoma, and Rhode Island are from 2022 rather than 2023-2025. The state EITC in Maryland contains both refundable and non-refundable components. In this figure, only the refundable component is shown. Both the refundable and non-refundable components are included in state tax liability and post-tax income estimates from the tax model in Maryland. The state EITC and CTC in Minnesota are calculated together as the Child and Working Family Credit. In this figure, these credits are combined for both the published state benchmarks and tax model estimates. The CPS ASEC Tax Model did not model Washington's EITC in 2023, so we exclude it from this figure.

Appendix Table 3 and Figure 3 present similar results for CTCs. The model's estimates of spending on and recipients of the CTC were not significantly different from the benchmarks in three states (New Mexico, Oregon, and Vermont). The tax model underestimated total spending and recipients of state CTCs in three states (California, New Jersey, and Oklahoma).

Figure 3.
State Child Tax Credits: CPS ASEC Tax Model as Percent of Benchmark

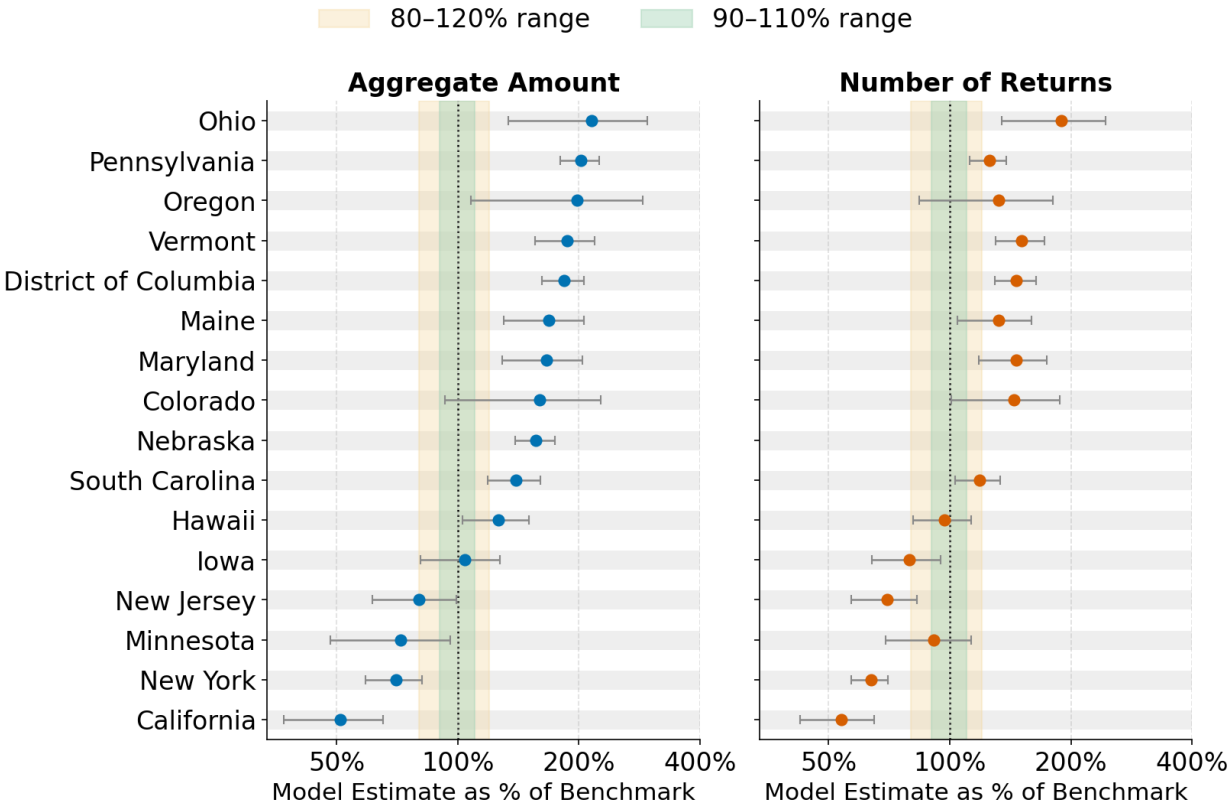


Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements (CPS ASEC). Benchmark data sourced from published estimates of tax credit spending and recipients from state tax offices (refer to Appendix Table 6 for full list of benchmark data sources).
Notes: Refer to Appendix Table 3 for underlying data. X axis is on log scale. Values represent annual calculations averaged across three years. States are included if the credit was available in all three tax years (2023 through 2025) and there were not substantial changes in the eligibility for or calculation of the credit across these years. Benchmark data for Oklahoma are from 2022 rather than 2023-2025. The state CTC and CDCC in Oklahoma are not disaggregated in state reports. In this figure, we report combined statistics for both credits for both the published state benchmarks and tax model estimates. For the tax model estimates, we sum both the aggregate amount and number of returns for the state CTC and CDCC because filers are only eligible to claim one of the two credits.

Appendix Table 4 and Figure 4 compare CPS ASEC Tax Model estimates to published benchmarks for a third common state tax credit: state CDCCs. We find that the model's estimate of total CDCC spending was not statistically different from the benchmark in two states, above the benchmark in nine states and the District of Columbia, and below the benchmark in four states. The model's estimate of the number of CDCC returns was not statistically different from the benchmark in three states, below the benchmark in four states, and above the benchmark in seven states and the District of Columbia. There were three states where the model's estimated aggregated credit amount was more than 140% of the benchmark amount.

We describe possible reasons for the differences between the tax model estimates and the state benchmarks, as well as overall takeaways from our analysis, in Section IV.

Figure 4.
State Child and Dependent Care Credits: CPS ASEC Tax Model as Percent of Benchmark



Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements (CPS ASEC). Benchmark data sourced from published estimates of tax credit spending and recipients from state tax offices (refer to Appendix Table 6 for full list of benchmark data sources).
Notes: Refer to Appendix Table 4 for underlying data. X axis is on log scale. Values represent annual calculations averaged across three years. States are included if the credit was available in all three tax years (2023 through 2025) and there were not substantial changes in the eligibility for or calculation of the credit across these years.

C. Household-Level Pretax and Post-Tax Income

Figure 5, Appendix Table 5, and Figure 6 all use household-level analyses to further explore how tax systems affect households. First, Figure 5 presents median household pretax income (i.e., money income) and median household post-tax income by state. States are ranked based on pretax income. Comparing pretax and post-tax income in this figure illustrates the combined effects of the federal and state income tax systems and reflects each state's unique underlying pretax income distribution. Median post-tax income ranges from $51,890 (Mississippi)[20] to $95,530 (Massachusetts).[21] While post-tax income is lower than pretax income in each state, the gap between the two varies across states. For example, median post-tax income was 10% lower than pretax income in Mississippi but 20% lower in Massachusetts. This reflects the interaction between states' underlying income distributions and the progressive

[20] Median post-tax income in Mississippi was not statistically different from Louisiana.
[21] Median post-tax income in Massachusetts was not statistically different from Colorado, Maryland, or New Hampshire.

nature of state and federal tax systems (which tend to tax higher-income households at higher rates).

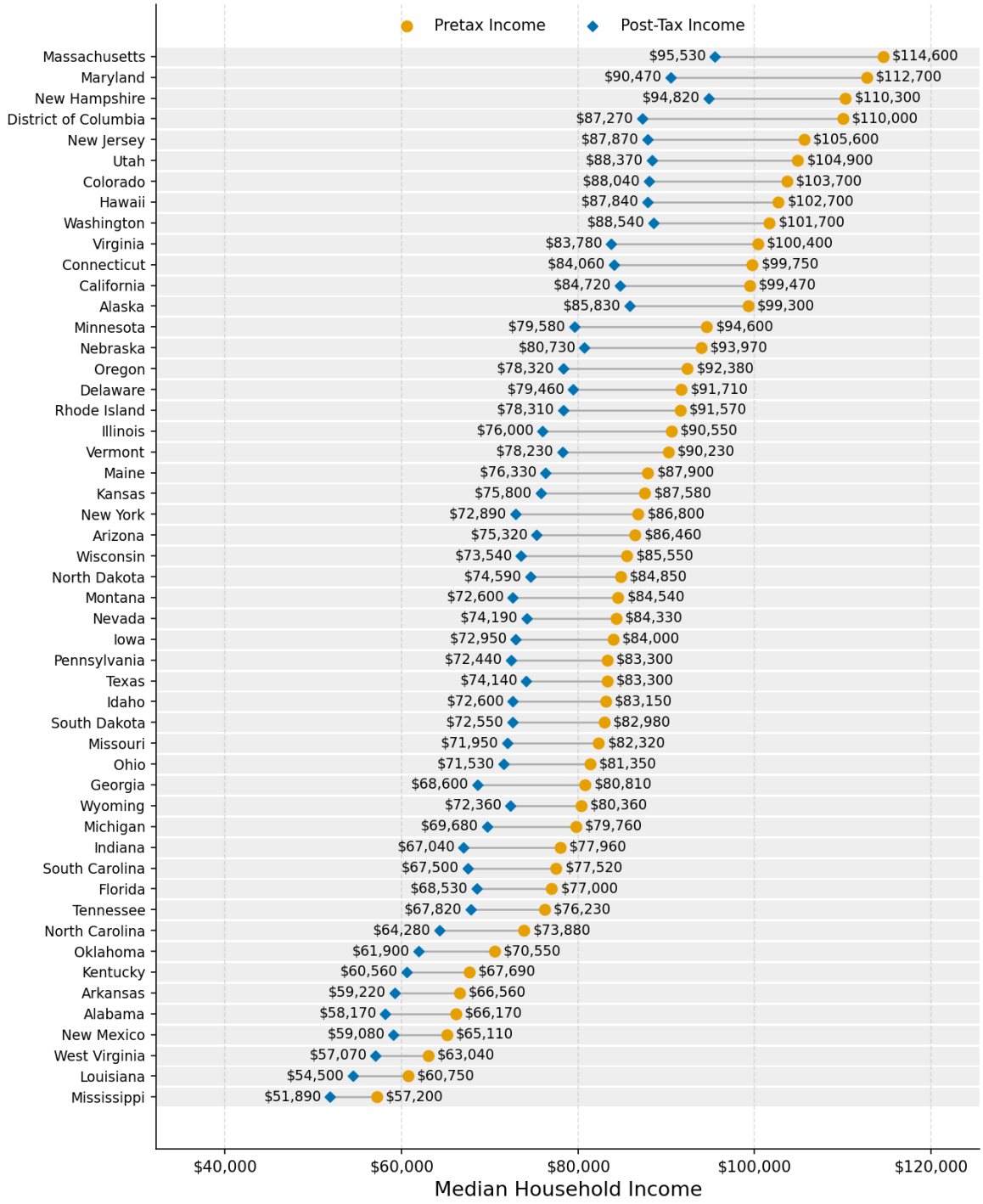
D. Household-Level Income Tax Liability

Appendix Table 5 provides more detail on households' typical tax liability by reporting median household tax liability due to federal income taxes (including FICA payroll taxes), state income taxes, and total income taxes regardless of type. Median federal tax liability ranges from $4,291 in Mississippi[22] to $18,390 in Washington, D.C. Differences in federal tax liability reflect differences in households' taxable income as well as household composition that determines eligibility for credits such as the federal CTC. We find that state tax liabilities also vary substantially. Eight states have zero state tax liability due to not having state income tax systems. Among states that had income tax systems for all three years of this analysis, median household state tax liability ranged from $1,331 in North Dakota[23] to $6,172 in Maryland. State tax liabilities vary due to both differences in state policy and in household income and composition by state.

Figure 6 provides insight into state tax policies in more detail by examining the effect of state taxes on household incomes for specific income brackets. In this figure, we first divide all households in the U.S. pooled across the 2024 through 2026 CPS ASEC into ten deciles based on the national distribution of pretax money income.[24] For example, the first decile includes all households with income lower than the 10th percentile of pretax money income nationwide, and the second decile includes households with income in between the 10th percentile and the 20th percentile. We then calculate how much income changed for each household after taking out state taxes. For example, a household making $100,000 a year with a state tax liability of $5,000 would have a 5% reduction in their income due to state taxes. Then, for each state, we report the median percent change due to state taxes within each income decile. Because the deciles are set nationally, they reflect households with similar income in each state, allowing us to better disentangle the structure of state tax systems from the underlying distribution of income in each state.

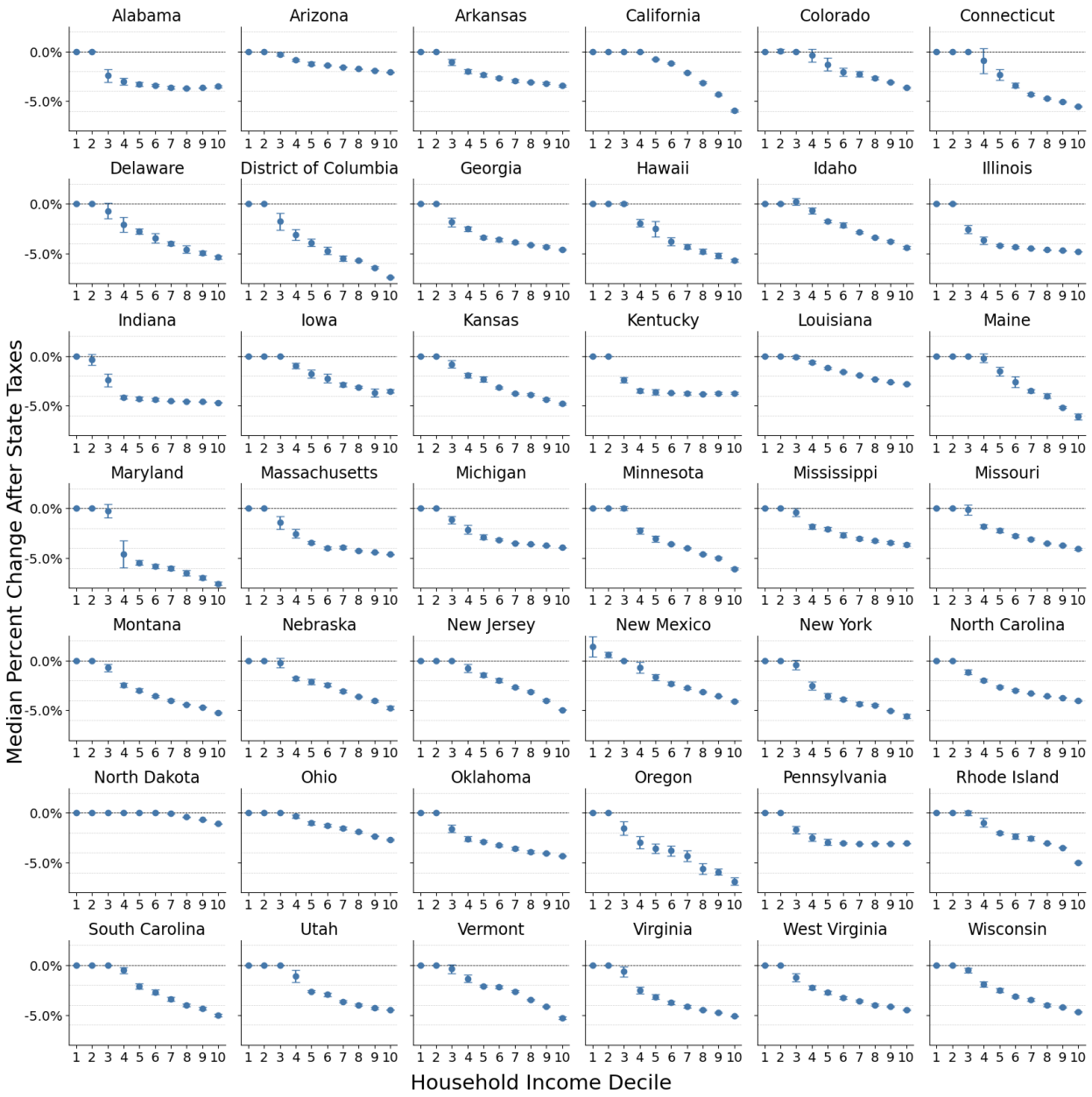
[22] Federal tax liability in Mississippi was not statistically different from Alabama or Kentucky.
[23] State tax liability in North Dakota was not statistically different from New Mexico.
[24] The income cutpoints used to divide households into 10 groups are: $20,000; $35,120; $50,540; $66,710; $85,500; $108,000; $137,600; $178,900; and $255,100.

Figure 5.
Post-Tax and Pretax Median Household Income by State



Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements (CPS ASEC).
Notes: All dollar values are adjusted for inflation using the C-CPI-U and reported in 2025 dollars. Margins of error for these estimates are reported in Appendix Table 5. New Hampshire eliminated the state income tax as of 2025. The estimate of post-tax income in New Hampshire includes state income tax in 2023 and 2024, but not in 2025. This estimate should be interpreted with caution.

Figure 6.
Median Percent Change in Income Due to State Taxes, by State and Income Decile: Tax Years 2023-2025



Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements (CPS ASEC).
Notes: All dollar values are adjusted for inflation using the C-CPI-U and reported in 2025 dollars. Decile cutpoints are determined by the nationwide income distribution and are not specific to states. States without individual income taxes are excluded from this figure. There are nine states excluded from the figure because they do not collect state income taxes for at least a portion of our years of analysis (2023 – 2025). Eight states (Alaska, Florida, Nevada, South Dakota, Tennessee, Texas, Washington, and Wyoming) did not collect state income taxes for all years of our analysis, and one state (New Hampshire) collected state income taxes in 2023 and 2024 but eliminated their income tax as of 2025.

This figure reveals some similarities and differences across state tax systems. The median change in income after state taxes was zero for households in the first two deciles in almost all states (except New Mexico). However, for households in the third decile and above, state taxes treat households quite differently. Some states have more progressive tax systems than others. For example, in Alabama the median change in income from state taxes was not statistically different for the 5th decile (3%) compared to the 10th decile (4%). In contrast, in California, households in the 5th decile saw a median change of 1% whereas households in the 10th decile saw a change of 6% after taking out state taxes – a statistically significant difference of 5 percentage points. Also, some states tax individual income at higher rates overall for households with similar pretax income. For example, in Ohio the 5th decile of households saw a 1% reduction in income after taking out state taxes, compared to 3% in Oklahoma.

IV. Discussion

The results described above should be interpreted alongside data and methodological choices of our analysis. This section discusses the implications of the results of our analysis together with limitations that may temper the findings. Generally, though, our results are in line with other research comparing various tax calculators to available benchmarks (Wheaton & Stevens 2016).

The CPS ASEC Tax Model was able to closely match total state income tax liability across all states, though there was variation in accuracy by state. Some of the discrepancy may be due to the underlying income data used in the tax model, the CPS ASEC, which underreports certain income sources compared to administrative tax data (Bee et al. 2025b). Additionally, there are certain aspects of state tax law that we cannot model due to a lack of information in the survey data.

Differences in state income tax liability between the tax model estimates and benchmarks are likely also caused by definitional differences between the two data sources. For example, the state income tax liability from the tax model includes local income taxes in four states (Indiana, Iowa, Maryland, and New York), whereas the state benchmarks from the Annual Survey of State Governments do not. This may result in higher state tax liability estimates from our tax model than from the benchmarks. There are also timing discrepancies which may lead to differences – tax model estimates are for the relevant tax year, while the benchmarks are reported for the state fiscal year.

The tax model's accuracy at matching benchmarks for state credits also varied across states and across credits. The model tended to underestimate receipt of state EITCs, be close to benchmarks for the state CTCs, and overestimate receipt of state CDCCs. There are a number of reasons for the mismatch between the tax model estimates and state benchmarks that may affect each of the three state tax credits differently.

The most notable possible cause for differences is that the tax model assumes full take-up of tax credits, whereas the state benchmarks report actual take-up which for a variety of reasons (including the cost and burden of filing taxes if not required to file) is less than full take-up. The model's assumption of full take-up would likely lead to an overestimate of the number of returns and aggregate credit amounts relative to the benchmark.

There is also evidence of a mismatch between the number of children in CPS ASEC tax units and IRS tax units at certain points in the income distribution (Bee et al. 2023). This could

partially explain differences between tax model estimates and published aggregates for credits such as EITCs. The structure of the EITC includes steep benefit phase-in and phaseout rules and large differences in benefits by number of children in the household, meaning that benefit amount calculations are highly sensitive to both the number of children and the household's earnings.

There are also definitional differences between the state tax credit estimates and the benchmarks that may affect these comparisons. For example, for non-refundable state tax credits, our analysis generally captures the total tax credit amount that units are eligible for, even if they don't receive the full amount because it is limited by their state tax liability.[25] We report the total value of each credit as estimated by the tax model, then compare to benchmarks published by the states as available. In many of the data sources for the state benchmarks, there is limited information on the methodology used to generate the estimates, but in at least some states they use a revenue loss framework. In these states (and likely other states), the state is estimating only the amount the credit reduces a unit's liability in the case of non-refundable credits. This would cause the tax model to overestimate the credit amounts for non-refundable credits compared to state benchmarks.

Finally, while our ASEC data is from 2023-2025, many benchmarks only incorporate data from one or two years due to a lag in most states in reporting state tax statistics. To account for this, we adjust for inflation, convert both data sources to annual averages, and only include benchmarks for states where the credit did not change substantially over the study period. However, there still could have been differences in credit claiming or amounts across time that create differences between our CPS ASEC estimates and the benchmarks.

V. Conclusion

These findings underscore the importance – and challenge – of accurately measuring state tax systems when studying household economic wellbeing. State tax liabilities and credits vary substantially across states and contribute to large differences in post-tax income by state. However, matching total tax liability, credit amounts, and credit recipients using a tax model applied to survey data is challenging. The extent to which the CPS ASEC Tax Model was able to accurately match total state tax liability varied substantially between states. We find that the total state tax liability estimated by the CPS ASEC Tax Model was between 80% and 120% inclusive of the benchmark in 33 states and the District of Columbia.[26] The model's accuracy at matching benchmarks for state credits also varied substantially across states and across

[25] For example, in South Carolina, the state EITC is calculated as 125 percent of the federal EITC and is non-refundable. There are tax filers who are eligible to receive the state EITC because they received the federal EITC, but their liability is already zero prior to applying state credits and therefore the credit does not affect their state tax liability. There are also tax filers who do not receive the full amount of the credit because their credit amount exceeds their state tax liability. In both instances, the state tax liability from the tax model (shown in Figure 1) captures the allowable amount of state EITC considering state tax liability, but the state EITC amount from the tax model (shown in Figure 2) captures the total eligible amount. For the state EITC, three states (Ohio, South Carolina, and Utah) in our analysis have non-refundable credits and one state (Maryland) has a partially refundable credit. For the state child and dependent care credit, five states (California, District of Columbia, Ohio, Rhode Island, and South Carolina) have non-refundable credits, and two states (Maine and Maryland) have partially refundable credits. All the child tax credits shown are refundable.

[26] This includes states where the model's estimate as a percent of the benchmark was not statistically different from 80% or 120%.

credits. The model tended to underestimate receipt of state EITCs and overestimate receipt of state CDCCs.

Our findings also demonstrate how post-tax income and tax liabilities vary by state. We find that post-tax median household income ranged from $51,890 in Mississippi[27] to $95,530 in Massachusetts[28] and total median household tax liability ranged from $5,036 in Mississippi[29] to $23,530 in Washington, D.C.[30] State tax systems vary widely in the tax liabilities they impose and the structure of their tax systems. For example, in states with no state income tax median state tax liabilities are, of course, $0. Other states impose substantial taxes; state tax liability was as high as $6,172 (Maryland). Examining the effect of state taxes across the income distribution, our analysis helps illuminate the differences in progressivity and levels of taxation, on average, across states.

This analysis represents an important step in the continuous improvement of the CPS ASEC Tax Model; we will use these results to target improvements to the model's treatment of state taxes and credits.

[27] Median post-tax income in Mississippi was not statistically different from Louisiana.
[28] Median post-tax income in Massachusetts was not statistically different from Colorado, Maryland, or New Hampshire.
[29] Median total tax liability in Mississippi was not statistically different from Louisiana.
[30] Median total tax liability in the District of Columbia was not statistically different from Maryland.

Appendix Tables

Appendix Table 1.
State Individual Income Tax Collections, Annual Average: Tax Years 2023-2025
(in thousands of dollars)

State	CPS ASEC Tax Model	Benchmark	Percent of Benchmark
Alabama	6,485,000	5,531,000	117%
Alaska	n/a	n/a	n/a
Arizona	5,949,000	5,308,000	112%
Arkansas	3,236,000	2,881,000	112%
California	89,410,000	118,700,000	75%
Colorado	8,539,000	7,883,000	108%
Connecticut	10,360,000	10,530,000	98%
Delaware	2,217,000	2,633,000	84%
District of Columbia	3,654,000	3,342,000	109%
Florida	n/a	n/a	n/a
Georgia	18,220,000	16,830,000	108%
Hawaii	2,893,000	3,303,000	88%
Idaho	2,427,000	2,770,000	88%
Illinois	27,760,000	24,350,000	114%
Indiana [a]	12,270,000	8,316,000	148%
Iowa [a]	4,226,000	4,179,000	101%
Kansas	5,365,000	4,676,000	115%
Kentucky	6,064,000	5,432,000	112%
Louisiana	3,255,000	4,892,000	67%
Maine	3,039,000	2,599,000	117%
Maryland [a]	22,720,000	10,940,000	208%
Massachusetts	18,960,000	22,640,000	84%
Michigan	15,890,000	12,160,000	131%
Minnesota	13,860,000	13,830,000	100%
Mississippi	2,355,000	2,447,000	96%
Missouri	8,321,000	8,281,000	100%
Montana	2,345,000	2,337,000	100%
Nebraska	3,875,000	2,628,000	147%
Nevada	n/a	n/a	n/a
New Hampshire	X	X	X
New Jersey	22,240,000	19,940,000	112%
New Mexico	2,007,000	2,508,000	80%
New York [a]	52,850,000	59,380,000	89%
North Carolina	15,820,000	17,290,000	91%
North Dakota	220,100	437,200	50%
Ohio	10,260,000	11,050,000	93%
Oklahoma	5,312,000	4,709,000	113%
Oregon	11,230,000	12,230,000	92%

Appendix Table 1, cont.
State Individual Income Tax Collections, Annual Average: Tax Years 2023-2025
(in thousands of dollars)

State	CPS ASEC Tax Model	Benchmark	Percent of Benchmark
Pennsylvania	16,440,000	17,750,000	93%
Rhode Island	2,054,000	1,718,000	120%
South Carolina	8,991,000	6,376,000	141%
South Dakota	n/a	n/a	n/a
Tennessee	n/a	n/a	n/a
Texas	n/a	n/a	n/a
Utah	5,971,000	6,045,000	99%
Vermont	1,274,000	1,315,000	97%
Virginia	20,670,000	18,200,000	114%
Washington	n/a	n/a	n/a
West Virginia	2,204,000	2,438,000	90%
Wisconsin	10,890,000	9,867,000	110%
Wyoming	n/a	n/a	n/a
Total	492,100,000	500,700,000	98%

Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements (CPS ASEC) and U.S. Census Bureau, Annual Survey of State Government Tax Collections, 2023 - 2025 State Government Tax Tables.
Notes: Values represent annual calculations averaged across three years. All dollar values are adjusted for inflation using the C-CPI-U and reported in 2025 dollars.
n/a indicates that the state does not have a state individual income tax.
X indicates that data are excluded because the state eliminated the state income tax as of 2025.
[a] Estimates from the CPS ASEC Tax Model in four states (Indiana, Iowa, Maryland, and New York) include both state and local income tax liability.

Appendix Table 2.
State Earned Income Tax Credit Compared to Targets, Annual Average: Tax Years 2023-2025
(in thousands of dollars)

State	Aggregate Amount			Number of Returns		
	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark
Alabama	-	-	-	-	-	-
Alaska	n/a	n/a	n/a	n/a	n/a	n/a
Arizona	-	-	-	-	-	-
Arkansas	-	-	-	-	-	-
California	697,600	1,021,000	68%	3,550,000	3,453,000	103%
Colorado	274,800	399,000	69%	280,500	343,800	82%
Connecticut	150,100	199,900	75%	151,400	192,200	79%
Delaware	19,200	†	†	52,500	†	†
District of Columbia	X	X	X	X	X	X
Florida	n/a	n/a	n/a	n/a	n/a	n/a
Georgia	-	-	-	-	-	-
Hawaii	75,970	79,940	95%	77,220	81,200	95%
Idaho	-	-	-	-	-	-
Illinois	313,100	474,100	66%	760,800	941,300	81%
Indiana [a]	85,070	84,650	100%	337,700	†	†
Iowa	59,780	71,420	84%	148,000	180,000	82%
Kansas	56,590	78,290	72%	130,700	†	†
Kentucky	-	-	-	-	-	-
Louisiana	41,930	69,430	60%	323,300	†	†
Maine	40,620	39,090	104%	78,510	92,000	85%
Maryland [b]	238,500	405,500	59%	271,700	356,200	76%
Massachusetts	238,300	†	†	242,800	†	†
Michigan	403,600	622,400	65%	520,700	684,200	76%
Minnesota [c]	847,100	768,000	110%	788,200	531,900	148%
Mississippi	-	-	-	-	-	-
Missouri	X	X	X	X	X	X
Montana	X	X	X	X	X	X
Nebraska	22,470	30,470	74%	89,270	†	†
Nevada	n/a	n/a	n/a	n/a	n/a	n/a
New Hampshire	-	-	-	-	-	-
New Jersey	393,600	575,800	68%	411,300	597,700	69%
New Mexico	93,300	132,800	70%	165,200	199,500	83%
New York	763,800	1,103,000	69%	956,200	1,398,000	68%
North Carolina	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-
Ohio	380,200	679,200	56%	564,400	781,700	72%
Oklahoma [a]	21,730	43,960	49%	178,900	321,700	56%
Oregon	40,320	49,620	81%	187,200	213,000	88%

Appendix Table 2, cont.
State Earned Income Tax Credit Compared to Targets, Annual Average: Tax Years 2023-2025
(in thousands of dollars)

State	Aggregate Amount			Number of Returns		
	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark
Pennsylvania	-	-	-	-	-	-
Rhode Island [a]	18,780	28,770	65%	49,330	72,290	68%
South Carolina	934,000	222,800	419%	288,300	99,120	291%
South Dakota	n/a	n/a	n/a	n/a	n/a	n/a
Tennessee	n/a	n/a	n/a	n/a	n/a	n/a
Texas	n/a	n/a	n/a	n/a	n/a	n/a
Utah	65,780	75,190	87%	136,800	146,400	93%
Vermont	18,770	28,300	66%	20,980	33,520	63%
Virginia	X	X	X	X	X	X
Washington [d]	X	X	X	X	X	X
West Virginia	-	-	-	-	-	-
Wisconsin	109,300	90,240	121%	183,000	197,300	93%
Wyoming	n/a	n/a	n/a	n/a	n/a	n/a

Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements. Benchmark data sourced from published estimates of tax credit spending and recipients from state tax offices (refer to Appendix Table 6 for full list of benchmark data sources).
Notes: Values represent annual calculations averaged across three years. All dollar values are adjusted for inflation using the C-CPI-U and reported in 2025 dollars. State credit benchmarks and model estimates are included if the credit was available in all three tax years (2023 through 2025) and there were not substantial changes in the eligibility for or calculation of the credit across these years. States have different policies on refundability of state credits. For refundable credits, tax units are eligible to receive the full value of the credit regardless of state tax liability. For non-refundable credits, tax units are only able to reduce their state tax liability to zero, but not receive the remaining credit as a refund. In the CPS ASEC Tax Model estimates, the full value of both the refundable and non-refundable credits is shown in these tables regardless of the unit's state tax liability.
n/a indicates that the state does not have a state individual income tax.
– indicates that the state does not have a state earned income tax credit.
† indicates that benchmark data could not be found or was not of sufficient quality.
X indicates that the state credit was either not available in all three tax years included in the analysis (2023 through 2025) or there were substantial changes in the eligibility for or calculation of the state credit across the years.
[a] Benchmark data for Indiana, Oklahoma, and Rhode Island are from 2022 rather than 2023-2025.
[b] The state EITC in Maryland contains both refundable and non-refundable components. In this table, only the refundable component is shown. Both the refundable and non-refundable components are included in state tax liability and post-tax income estimates from the tax model in Maryland.
[c] The state EITC and CTC in Minnesota are calculated together as the Child and Working Family Credit. In this table, these credits are combined for both the published state benchmarks and tax model estimates.
[d] The CPS ASEC Tax Model did not model Washington's EITC in 2023, so we exclude it from this table.

Appendix Table 3.
State Child Tax Credit Compared to Targets, Annual Average: Tax Years 2023-2025
(in thousands of dollars)

State	Aggregate Amount			Number of Returns		
	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark
Alabama	-	-	-	-	-	-
Alaska	n/a	n/a	n/a	n/a	n/a	n/a
Arizona	143,600	†	†	935,800	†	†
Arkansas	-	-	-	-	-	-
California	391,900	446,700	88%	355,500	409,000	87%
Colorado	X	X	X	X	X	X
Connecticut	-	-	-	-	-	-
Delaware	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-
Florida	n/a	n/a	n/a	n/a	n/a	n/a
Georgia	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-
Idaho	95,690	†	†	230,300	†	†
Illinois	X	X	X	X	X	X
Indiana	-	-	-	-	-	-
Iowa	-	-	-	-	-	-
Kansas	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-
Maine	X	X	X	X	X	X
Maryland	X	X	X	X	X	X
Massachusetts	X	X	X	X	X	X
Michigan	-	-	-	-	-	-
Minnesota	**	**	**	**	**	**
Mississippi	-	-	-	-	-	-
Missouri	-	-	-	-	-	-
Montana	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-
Nevada	n/a	n/a	n/a	n/a	n/a	n/a
New Hampshire	-	-	-	-	-	-
New Jersey	174,000	226,100	77%	169,800	234,000	73%
New Mexico	141,700	139,700	101%	255,400	246,400	104%
New York	X	X	X	X	X	X
North Carolina	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-
Ohio	-	-	-	-	-	-
Oklahoma [a]	42,030	46,490	90%	267,300	353,000	76%
Oregon	38,330	35,950	107%	32,000	30,110	106%

Appendix Table 3, cont.
State Child Tax Credit Compared to Targets, Annual Average: Tax Years 2023-2025
(in thousands of dollars)

State	Aggregate Amount			Number of Returns		
	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark
Pennsylvania	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-
South Carolina	-	-	-	-	-	-
South Dakota	n/a	n/a	n/a	n/a	n/a	n/a
Tennessee	n/a	n/a	n/a	n/a	n/a	n/a
Texas	n/a	n/a	n/a	n/a	n/a	n/a
Utah	X	X	X	X	X	X
Vermont	26,000	25,230	103%	20,960	21,300	98%
Virginia	-	-	-	-	-	-
Washington	n/a	n/a	n/a	n/a	n/a	n/a
West Virginia	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-
Wyoming	n/a	n/a	n/a	n/a	n/a	n/a

Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements. Benchmark data sourced from published estimates of tax credit spending and recipients from state tax offices (refer to Appendix Table 6 for full list of benchmark data sources).
Notes: Values represent annual calculations averaged across three years. All dollar values are adjusted for inflation using the C-CPI-U and reported in 2025 dollars. State credit benchmarks and model estimates are included if the credit was available in all three tax years (2023 through 2025) and there were not substantial changes in the eligibility for or calculation of the credit across these years. States have different policies on refundability of state credits. For refundable credits, tax units are eligible to receive the full value of the credit regardless of state tax liability. For non-refundable credits, tax units are only able to reduce their state tax liability to zero, but not receive the remaining credit as a refund. In the CPS ASEC Tax Model estimates, the full value of both the refundable and non-refundable credits is shown in these tables regardless of the unit's state tax liability.
n/a indicates that the state does not have a state individual income tax.
– indicates that the state does not have a state child tax credit.
† indicates that benchmark data could not be found or was not of sufficient quality.
X indicates that the state credit was either not available in all three tax years included in the analysis (2023 through 2025) or there were substantial changes in the eligibility for or calculation of the state credit across the years.
** indicates that the state's EITC and CTC are calculated together and reported in Appendix Table 2 as a combined credit.
[a] Benchmark data for Oklahoma are from 2022 rather than 2023-2025. The state CTC and CDCC in Oklahoma are not disaggregated in state reports. In this table, we report combined statistics for both credits for both the published state benchmarks and tax model estimates. For the tax model estimates, we sum both the aggregate amount and number of returns for the state CTC and CDCC because filers are only eligible to claim one of the two credits.

Appendix Table 4.
State Child and Dependent Care Credit Compared to Targets, Annual Average: Tax Years 2023-2025
(in thousands of dollars)

State	Aggregate Amount			Number of Returns		
	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark
Alabama	-	-	-	-	-	-
Alaska	n/a	n/a	n/a	n/a	n/a	n/a
Arizona	-	-	-	-	-	-
Arkansas	6,789	†	†	51,880	†	†
California	7,815	15,300	51%	42,940	79,990	54%
Colorado	8,761	5,479	160%	25,900	17,940	144%
Connecticut	-	-	-	-	-	-
Delaware	10,940	†	†	29,190	†	†
District of Columbia	6,201	3,371	184%	23,380	15,960	147%
Florida	n/a	n/a	n/a	n/a	n/a	n/a
Georgia	X	X	X	X	X	X
Hawaii	19,680	15,580	126%	17,570	18,120	97%
Idaho	-	-	-	-	-	-
Illinois	-	-	-	-	-	-
Indiana	-	-	-	-	-	-
Iowa	12,460	11,970	104%	37,900	47,680	79%
Kansas	X	X	X	X	X	X
Kentucky	14,210	†	†	82,730	†	†
Louisiana	7,043	†	†	85,400	†	†
Maine	6,810	4,053	168%	33,010	25,000	132%
Maryland	16,610	9,976	166%	86,750	59,290	146%
Massachusetts	-	-	-	-	-	-
Michigan	-	-	-	-	-	-
Minnesota	19,140	26,550	72%	38,630	42,410	91%
Mississippi	3,049	†	†	15,220	†	†
Missouri	-	-	-	-	-	-
Montana	-	-	-	-	-	-
Nebraska	13,500	8,626	157%	68,000	†	†
Nevada	n/a	n/a	n/a	n/a	n/a	n/a
New Hampshire	-	-	-	-	-	-
New Jersey	19,540	24,350	80%	82,880	118,400	70%
New Mexico	*	*	*	*	*	*
New York	81,430	115,700	70%	248,800	390,800	64%
North Carolina	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-
Ohio	17,860	8,306	215%	51,620	27,300	189%
Oklahoma	**	**	**	**	**	**
Oregon	34,100	17,240	198%	19,200	14,540	132%

Appendix Table 4, cont.
State Child and Dependent Care Credit Compared to Targets, Annual Average: Tax Years 2023-2025
(in thousands of dollars)

State	Aggregate Amount			Number of Returns		
	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark	CPS ASEC Tax Model	State Benchmark	Percent of Benchmark
Pennsylvania	234,000	115,700	202%	274,500	219,200	125%
Rhode Island	4,878	†	†	25,760	†	†
South Carolina	32,860	23,550	140%	134,400	113,500	118%
South Dakota	n/a	n/a	n/a	n/a	n/a	n/a
Tennessee	n/a	n/a	n/a	n/a	n/a	n/a
Texas	n/a	n/a	n/a	n/a	n/a	n/a
Utah	-	-	-	-	-	-
Vermont	9,535	5,088	187%	18,000	11,920	151%
Virginia	-	-	-	-	-	-
Washington	n/a	n/a	n/a	n/a	n/a	n/a
West Virginia	X	X	X	X	X	X
Wisconsin	X	X	X	X	X	X
Wyoming	n/a	n/a	n/a	n/a	n/a	n/a

Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements. Benchmark data sourced from published estimates of tax credit spending and recipients from state tax offices (refer to Appendix Table 6 for full list of benchmark data sources).
Notes: Values represent annual calculations averaged across three years. All dollar values are adjusted for inflation using the C-CPI-U and reported in 2025 dollars. State credit benchmarks and model estimates are included if the credit was available in all three tax years (2023 through 2025) and there were not substantial changes in the eligibility for or calculation of the credit across these years. States have different policies on refundability of state credits. For refundable credits, tax units are eligible to receive the full value of the credit regardless of state tax liability. For non-refundable credits, tax units are only able to reduce their state tax liability to zero, but not receive the remaining credit as a refund. In the CPS ASEC Tax Model estimates, the full value of both the refundable and non-refundable credits is shown in these tables regardless of the unit's state tax liability.
n/a indicates that the state does not have a state individual income tax.
– indicates that the state does not have a state child and dependent care credit.
† indicates that benchmark data could not be found or was not of sufficient quality.
X indicates that the state credit was either not available in all three tax years included in the analysis (2023 through 2025) or there were substantial changes in the eligibility for or calculation of the state credit across the years.
* indicates that the data is suppressed because the number of unweighted tax units used to generate the estimate is below 15.
** indicates that the state's CTC and CDCC are reported together (as a combined sum) in Appendix Table 3.

Appendix Table 5.
Median Household State and Federal Tax Liability and Pretax and Post-Tax Income by State: Tax Years 2023-2025
(in thousands of dollars)

State	Federal Tax Liability including FICA		State Tax Liability		Total Tax Liability		Pretax Income		Post-Tax Income	
	Median	Margin of Error	Median	Margin of Error	Median	Margin of Error	Median	Margin of Error	Median	Margin of Error
Alabama	6,429	1,048	2,034	117	8,088	1,233	66,170	5,630	58,170	3,169
Alaska	12,270	1,084	0	0	12,270	1,084	99,300	6,292	85,830	5,556
Arizona	9,466	683	1,543	46	10,500	798	86,460	3,066	75,320	3,768
Arkansas	6,249	576	1,849	46	7,443	730	66,560	2,864	59,220	2,317
California	12,190	360	2,102	35	13,660	471	99,470	2,392	84,720	1,552
Colorado	13,890	1,810	2,203	191	15,820	1,946	103,700	7,121	88,040	5,720
Connecticut	12,700	1,151	3,610	398	16,310	1,384	99,750	6,409	84,060	3,666
Delaware	9,589	770	2,578	264	12,110	973	91,710	3,948	79,460	2,586
District of Columbia	18,390	1,141	5,143	380	23,530	1,603	110,000	5,395	87,270	3,791
Florida	8,199	389	0	0	8,199	389	77,000	1,863	68,530	1,658
Georgia	9,126	611	2,367	75	11,290	761	80,810	3,336	68,600	2,253
Hawaii	11,640	764	3,177	277	14,840	1,057	102,700	4,619	87,840	2,869
Idaho	8,782	602	1,847	102	10,280	750	83,150	3,264	72,600	2,613
Illinois	10,600	670	3,579	174	14,020	862	90,550	3,967	76,000	3,291
Indiana [a]	8,446	789	3,151	212	11,470	977	77,960	4,016	67,040	3,541
Iowa [a]	9,686	648	2,034	82	11,240	877	84,000	5,051	72,950	3,973
Kansas	9,547	705	2,378	110	11,770	1,042	87,580	4,945	75,800	3,442
Kentucky	6,286	1,149	2,199	103	8,310	1,161	67,690	4,506	60,560	3,625
Louisiana	5,223	490	1,453	33	5,658	561	60,750	1,961	54,500	1,759
Maine	9,989	1,346	2,271	134	12,050	1,670	87,900	4,346	76,330	3,383
Maryland [a]	15,050	1,452	6,172	401	21,440	1,705	112,700	5,642	90,470	4,153
Massachusetts	15,750	1,075	4,206	231	19,850	1,339	114,600	6,464	95,530	5,168
Michigan	8,524	563	2,350	74	10,740	739	79,760	3,069	69,680	2,556
Minnesota	11,740	844	3,279	230	14,980	1,085	94,600	2,867	79,580	3,175
Mississippi	4,291	567	1,697	34	5,036	587	57,200	1,755	51,890	1,994
Missouri	8,930	745	2,151	78	10,350	1,154	82,320	3,404	71,950	2,833
Montana	9,715	815	2,798	307	12,500	1,092	84,540	4,733	72,600	3,873
Nebraska	11,380	796	2,402	115	13,630	1,056	93,970	3,165	80,730	3,088
Nevada	9,704	739	0	0	9,704	739	84,330	4,471	74,190	3,117
New Hampshire [b]	14,750	1,127	X	X	X	X	110,300	5,206	94,820	3,948

Appendix Table 5, cont.
Median Household State and Federal Tax Liability and Pretax and Post-Tax Income by State: Tax Years 2023-2025
(in thousands of dollars)

State	Federal Tax Liability including FICA		State Tax Liability		Total Tax Liability		Pretax Income		Post-Tax Income	
	Median	Margin of Error	Median	Margin of Error	Median	Margin of Error	Median	Margin of Error	Median	Margin of Error
New Jersey	13,670	1,034	2,329	90	15,820	1,270	105,600	4,808	87,870	3,554
New Mexico	5,973	767	1,390	103	6,722	900	65,110	3,313	59,080	2,560
New York [a]	10,250	554	2,968	184	13,290	744	86,800	2,720	72,890	2,682
North Carolina	7,470	523	2,105	56	9,236	647	73,880	3,042	64,280	2,063
North Dakota	10,170	719	1,331	11	10,180	738	84,850	5,134	74,590	2,990
Ohio	8,850	600	1,661	31	9,551	640	81,350	3,098	71,530	2,524
Oklahoma	7,075	471	1,996	77	8,810	636	70,550	2,966	61,900	2,490
Oregon	10,740	967	3,678	257	14,410	1,079	92,380	5,005	78,320	4,242
Pennsylvania	9,743	663	2,199	62	11,720	849	83,300	3,484	72,440	2,375
Rhode Island	11,100	1,260	2,128	102	12,630	1,417	91,570	3,974	78,310	3,117
South Carolina	8,043	612	2,057	59	9,244	806	77,520	2,540	67,500	2,432
South Dakota	9,746	940	0	0	9,746	940	82,980	4,774	72,550	3,152
Tennessee	8,523	676	0	0	8,523	676	76,230	3,455	67,820	3,611
Texas	9,629	353	0	0	9,629	353	83,300	2,077	74,140	1,370
Utah	12,820	984	3,036	274	15,950	1,145	104,900	5,544	88,370	3,493
Vermont	10,420	883	2,167	90	12,280	952	90,230	5,039	78,230	4,066
Virginia	12,470	866	3,612	225	16,200	1,103	100,400	3,760	83,780	2,610
Washington	12,610	1,034	0	0	12,610	1,026	101,700	4,684	88,540	3,458
West Virginia	5,382	508	1,953	45	6,733	669	63,040	2,342	57,070	1,966
Wisconsin	9,839	693	2,410	107	12,300	953	85,550	4,123	73,540	3,074
Wyoming	8,525	621	0	0	8,525	621	80,360	3,560	72,360	2,792

Sources: U.S. Census Bureau, Current Population Survey, 2024 - 2026 Annual Social and Economic Supplements.
Notes: All dollar values are adjusted for inflation using the C-CPI-U and reported in 2025 dollars. Median federal tax liability plus median state tax liability does not add up to median total tax liability. Similarly, median pretax income minus median tax liability does not equal median post-tax income.
X indicates that data are excluded because the state eliminated the state income tax as of 2025.
[a] Estimates from the CPS ASEC Tax Model in four states (Indiana, Iowa, Maryland, and New York) include both state and local income tax liability.
[b] New Hampshire eliminated the state income tax as of 2025. The estimate of post-tax income in New Hampshire includes state income tax in 2023 and 2024, but not in 2025. This estimate should be interpreted with caution.

Appendix Table 6.
Data Sources for State Credit Benchmark Data

Credit Type	State	State Credit Name	Year(s)	Data Source	Data Source Link
Earned Income Tax Credit	California	CalEITC	TY 2023-2024	2025 Franchise Tax Board EITC Summary of CA Residents Year Comparison, PDF p. 1	https://data.ca.gov/dataset/2025-ftb-eitc-summary-of-ca-residents-year-comparison
	Colorado	Earned Income Tax Credit	TY 2023	Individual Summary Reports by Tax Year, 2023	https://cdor.colorado.gov/data-and-reports/income-tax-data/income-tax-credits
	Connecticut	Earned Income Tax Credit	TY 2023-2024	Connecticut Revenue Services FY 24 - 25 Annual Report, PDF p. 35	https://portal.ct.gov/DRS/DRS-Reports/Annual-Reports/Department-of-Revenue-Services-Annual-Reports
	Hawaii	Earned Income Tax Credit	TY 2023-2024	Earned Income Tax Credit Report 2023 & 2024, PDF p. 7	https://tax.hawaii.gov/stats/a5_1annual/a5_3ei_credit/
	Illinois	Earned Income Tax Credit	TY 2023	Individual Income Tax IL-1040 Return Stratifications - 2023, PDF p. 1	https://tax.illinois.gov/research/taxstats/indincomestratifications.html
	Indiana	Earned Income Tax Credit	FY 2022	2024 Tax Expenditure Review, PDF p. 21	https://www.in.gov/sba/files/2024-Tax-Expenditure-Review-FINAL.pdf
	Iowa	Earned Income Tax Credit	TY 2023-2024	2023 & 2024 Iowa Individual Income Tax Annual Statistical Reports	https://revenue.iowa.gov/resources/reports?name=&field_topic_target_id=14&year=All
	Kansas	Earned Income Tax Credit	TY 2023	Kansas Department of Revenue 2025 Annual Report, PDF p. 33	https://www.ksrevenue.gov/prannualreport.html
	Louisiana	Earned Income Tax Credit	FY 2023	Louisiana Annual Tax Collection Report 2022 - 2023, PDF p. 50	https://revenue.louisiana.gov/publications/?types=annual_report
	Maine	Earned Income Tax Credit	FY 2024	2025 Maine State Tax Expenditure Report, PDF p. 46	https://www.maine.gov/revenue/taxes/tax-policy-office
	Maryland	Earned Income Tax Credit	TY 2023-2024	2023 & 2024 Income Tax Summary Reports, PDF p. 18 & 21	https://www.marylandcomptroller.gov/reports/income-tax-summary.html
	Michigan	Working Families Tax Credit	TY 2023-2024	IRS Statistics for tax returns with the Earned Income Tax Credit (EITC)	https://www.irs.gov/tax-professionals/eitc-central/statistics-for-tax-returns-with-the-earned-income-tax-credit-eitc

Appendix Table 6, cont.
Data Sources for State Credit Benchmark Data

Credit Type	State	State Credit Name	Year(s)	Data Source	Data Source Link
Earned Income Tax Credit	Minnesota	Working Family Credit	TY 2023	Minnesota's Child Credit and Working Family Credit, PDF p. 1	https://www.house.mn.gov/hrd/pubs/ss/sschldwfc.pdf
	Nebraska	Earned Income Tax Credit	TY 2023-2024	Individual Income Tax Credits	https://revenue.nebraska.gov/research/statistics/individual-income-tax-data
	New Jersey	Earned Income Tax Credit	TY 2023-2024	The State of New Jersey Tax Expenditure Reports Fiscal Years 2025 & 2027	https://www.nj.gov/treasury/taxation/taxexpenditurereport.shtml
	New Mexico	Working Families Tax Credit	TY 2023-2024	New Mexico 2025 Tax Expenditure Report, PDF p. 260	https://www.nmlegis.gov/handouts/RSTP%20121525%20Item%202%20B%20Tax%20Expenditure%20Report.pdf
	New York	Earned Income Tax Credit	TY 2023-2024	Earned Income Tax Credit (NYS EITC) Claims by Place of Residence - Table 3	https://www.data.ny.gov
	Ohio	Earned Income Tax Credit	TY 2023-2024	Y-1: Ohio Individual Income Tax Returns, by Income Class and Taxable Year	https://tax.ohio.gov/researcher/tax-analysis/tax-data-series/tds1
	Oklahoma	Earned Income Tax Credit	TY 2022	Oklahoma Tax Commission Tax Expenditure Report 2023 – 2024, PDF p. 6	https://oklahoma.gov/content/dam/ok/en/tax/documents/resources/reports/tax-expenditure/TaxExpenditureReport-2023-2024.pdf
	Oregon	Earned Income Tax Credit	TY 2023	Oregon Personal Income Tax Statistics Characteristics of Filers 2025 Edition: Tax Year 2023, PDF p. 65	https://www.oregon.gov/dor/gov-research/Pages/personal_income_tax_statistics.aspx
	Rhode Island	Earned Income Tax Credit	TY 2022	2024 Tax Expenditures Report, PDF p. 81	https://tax.ri.gov/guidance/reports/tax-expenditures-reports
	South Carolina	Earned Income Tax Credit	TY 2023	2023-2024 Annual Report, PDF p. 13	https://dor.sc.gov/sites/dor/files/Documents/Reports/Legislative%20Reports/AnnualReportFY24.pdf
	Utah	Earned Income Tax Credit	TY 2023-2024	2023 & 2024 State Earned Income Tax Credit (EITC) Statistics	https://tax.utah.gov/commission/econstats/income/credits-checkoffs/
	Vermont	Earned Income Tax Credit	FY 2023	2025 Vermont Tax Expenditures Biennial Report, PDF p. 21	https://ljfo.vermont.gov/subjects/revenue-and-tax/tax-expenditure-reports

Appendix Table 6, cont.
Data Sources for State Credit Benchmark Data

Credit Type	State	State Credit Name	Year(s)	Data Source	Data Source Link
Earned Income Tax Credit	Wisconsin	Earned Income Tax Credit	FY 2023-2025	IIT Refundable Credits by WI DOR - Division of Research and Policy Data Visualization	https://public.tableau.com/app/profile/research.policy/viz/IITRefundableCredits/RefundableCredits
Child Tax Credit	California	Young Child Tax Credit	TY 2023-2024	2025 Franchise Tax Board EITC Summary of CA Residents Year Comparison, PDF p. 1	https://data.ca.gov/dataset/2025-ftb-eitc-summary-of-ca-residents-year-comparison
	New Jersey	Child Tax Credit	TY 2023-2024	The State of New Jersey Tax Expenditure Reports Fiscal Years 2025 & 2027	https://www.nj.gov/treasury/taxation/taxexpenditurereport.shtml
	New Mexico	Child Tax Credit	TY 2023-2024	New Mexico 2025 Tax Expenditure Report, PDF p. 82	https://www.nmlegis.gov/handouts/RSTP%20121525%20Item%202%20B%20Tax%20Expenditure%20Report.pdf
	Oklahoma	Child Care / Child Tax Credit	TY 2022	Oklahoma Tax Commission Tax Expenditure Report 2023 – 2024, PDF p. 6	https://oklahoma.gov/content/dam/ok/en/tax/documents/resources/reports/tax-expenditure/TaxExpenditureReport-2023-2024.pdf
	Oregon	Oregon Kids' Credit	TY 2023	Oregon Personal Income Tax Statistics Characteristics of Filers 2025 Edition: Tax Year 2023, PDF p. 65	https://www.oregon.gov/dor/gov-research/Pages/personal_income_tax_statistics.aspx
	Vermont	Child Tax Credit	FY 2023	2025 Vermont Tax Expenditures Biennial Report, PDF p. 21	https://ljfo.vermont.gov/subjects/revenue-and-tax/tax-expenditure-reports
Child and Dependent Care Credit	California	Child and Dependent Care Credit	TY 2023	Personal Income Tax (PIT) Annual Report 2024, PDF p. 187	https://data.ca.gov/dataset/pit-annual-report-2024
	Colorado	Child and Dependent Care Credit	TY 2023	Individual Summary Reports by Tax Year, 2023	https://cdor.colorado.gov/data-and-reports/income-tax-data/income-tax-credits
	District of Columbia	Credit for Child and Dependent Care	TY 2023	DC Statistics of Income Selected Income and Tax Items for Individual Income Tax Returns for TY 2023 Forms D40	https://ora-cfo.dc.gov/page/dc-statistics-income-soi
	Hawaii	Child and Dependent Care Credit	TY 2023	Tax Credits Claimed by Hawai'i Taxpayers Tax Year 2023, PDF p. 45-46	https://tax.hawaii.gov/stats/a5_1annual/a5_4credits/

Appendix Table 6, cont.
Data Sources for State Credit Benchmark Data

Credit Type	State	State Credit Name	Year(s)	Data Source	Data Source Link
Child and Dependent Care Credit	Iowa	Child and Dependent Care Credit	TY 2023-2024	2023 & 2024 Iowa Individual Income Tax Annual Statistical Reports	https://revenue.iowa.gov/resources/reports?name=&field_topic_target_id=14&year=All
	Maine	Child and Dependent Care Credit	FY 2024	2025 Maine State Tax Expenditure Report, PDF p. 43	https://www.maine.gov/revenue/taxes/tax-policy-office
	Maryland	Credit for Child and Dependent Care Expenses	TY 2023-2024	2023 & 2024 Income Tax Summary Reports, PDF p. 20	https://www.marylandcomptroller.gov/reports/income-tax-summary.html
	Minnesota	Child and Dependent Care Credit	TY 2023	Minnesota Department of Revenue Individual Income Tax Statistics 2023	https://www.revenue.state.mn.us/individual-income-tax-statistics
	Nebraska	Child and Dependent Care Credit	TY 2023-2024	Individual Income Tax Credits	https://revenue.nebraska.gov/research/statistics/individual-income-tax-data
	New Jersey	Child and Dependent Care Credit	TY 2023-2024	The State of New Jersey Tax Expenditure Reports Fiscal Years 2025 & 2027	https://www.nj.gov/treasury/taxation/taxexpenditurereport.shtml
	New York	Child and Dependent Care Credit	TY 2023	Child and Dependent Care Credit (NYS), Total, by Place of Residence - Table 3	https://www.data.ny.gov
	Ohio	Child and Dependent Care Credit	TY 2023-2024	Y-1: Ohio Individual Income Tax Returns, by Income Class and Taxable Year	https://tax.ohio.gov/researcher/tax-analysis/tax-data-series/tds1
	Oregon	Working Family Household and Dependent Care Credit	TY 2023	Oregon Personal Income Tax Statistics Characteristics of Filers 2025 Edition: Tax Year 2023, PDF p. 65	https://www.oregon.gov/dor/gov-research/Pages/personal_income_tax_statistics.aspx
	Pennsylvania	Child and Dependent Care Enhancement Tax Credit	FY 2024-2025	2025-26 & 2026-27 Governor's Executive Budgets	https://www.pa.gov/agencies/budget/publications-and-reports/commonwealth-budget
	South Carolina	Child and Dependent Care Credit	TY 2023	2023-2024 Annual Report, PDF p. 13	https://dor.sc.gov/sites/dor/files/Documents/Reports/Legislative%20Reports/AnnualReportFY24.pdf

Appendix Table 6, cont.
Data Sources for State Credit Benchmark Data

Credit Type	State	State Credit Name	Year(s)	Data Source	Data Source Link
Child and Dependent Care Credit	Vermont	Child and Dependent Care Credit	FY 2023	2025 Vermont Tax Expenditures Biennial Report, PDF p. 14	https://ljfo.vermont.gov/subjects/revenue-and-tax/tax-expenditure-reports

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