

RESEARCH REPORT

State Revenues Remained Sluggish in the Third Quarter of 2023

State Tax and Economic Review, 2023 Quarter 3

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Get Real-Time Data

The State Tax and Economic Review is the preeminent source of data and analysis on state tax collections. The Urban Institute's State and Local Finance Initiative regularly collects data and information from all 50 states, uses this information to adjust national and state data from the US Census Bureau, then provides the most timely, accurate, and in-depth look at how states are faring.

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Data from 41 states with broad-based income taxes from 2010 to present for the following components of personal income taxes: withholding, estimated payments, final payments, refunds, and total net personal income taxes.

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Monthly State Government Marijuana Tax Revenue Data

Data from all states that tax sales of recreational marijuana from inception of the tax to present.

GET REAL-TIME DATA v

Executive Summary

- State and local government tax revenues from major sources—personal income, corporate income, sales, and property taxes—increased 0.8 percent in nominal terms but declined 2.4 percent in real terms in the third guarter of 2023 compared with the same guarter in 2022.¹
- State government tax revenues from major sources declined 0.5 percent in nominal terms and 3.6 percent in real terms in the third quarter of 2023 compared with the same quarter in 2022. This is the fourth consecutive quarter that state government tax revenue declined in nominal terms. During the *combined* first three quarters of calendar year 2023, state government tax revenues from major sources declined 9.6 percent in nominal terms and 13.0 percent in real terms compared with the same period in 2022.
 - State personal income tax revenues declined 2.9 percent in nominal terms and 6.0 percent in real terms in the third quarter of 2023 compared with the third quarter of 2022. States have experienced extremely volatile personal income tax revenues in recent quarters. This reflects both numerous state income tax rate cuts and continued instability in the stock market. In the first three quarters of 2023, state personal income tax revenues saw a year-over-year decrease of 21.7 percent in real terms.
 - State corporate income tax revenues declined 0.3 percent in nominal terms and 3.4 percent in real terms in the third quarter of 2023 compared with the same quarter in 2022. This recent decline was in sharp contrast to strong corporate income tax revenue growth throughout calendar year 2022. However, some of that growth was the result of recategorization of revenues—some states introduced an elective pass-through entity tax and collections were counted as corporate income tax revenue instead of personal income tax revenue. In the first three quarters of 2023, state corporate income tax revenues saw a year-over-year decrease of 15.9 percent in real terms.
 - State sales tax revenues increased 1.5 percent in nominal terms but declined 1.7 percent in real terms in the third quarter of 2023 compared with the same quarter in 2022. The growth in sales tax revenues has weakened substantially compared with strong growth throughout 2022, which was largely related to high inflation. The current weakness in sales tax revenues is attributable to shifting consumption patterns, particularly increased spending on mostly nontaxed services instead of

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- taxable goods. In the first three quarters of 2023, state sales tax revenues saw a year-over-year decrease of 0.8 percent in real terms.
- Local government tax revenues from major sources increased 2.7 percent in nominal terms but declined 0.5 percent in real terms in the third quarter of 2023 compared with the same quarter in 2022. In the first three quarters of 2023, local government tax revenues from major sources saw a year-over-year increase of 4.2 percent in real terms.
 - » Local property tax revenues, the largest source of local government revenues, increased by 3.7 percent in nominal terms and 0.5 percent in real terms in the third quarter of 2023 compared with the third quarter of 2022. In the first three quarters of 2023, local government property tax revenues saw a year-over-year increase of 7.0 percent in real terms.
- Preliminary data for the fourth quarter of 2023 indicate continued weakness in overall state tax revenue collections, largely driven by persistent weakness in personal income tax revenues. The weakness in personal income tax revenues was expected given the poor performance of the stock market for much of 2023 and state policy actions such as income tax rate cuts and rebate payments. Total state tax revenues increased 6.1 percent in nominal terms in the fourth quarter of 2023 compared with the same period in 2022, but growth in the median states was only 0.7 percent. Year-over-year changes in major state tax revenues in the fourth quarter of 2023 were as follows:
 - State personal income tax collections increased by 9.8 percent in nominal terms, yet the median state experienced a decline of 0.6 percent.
 - State corporate income tax collections increased by 12.0 percent in nominal terms; growth in the median state was 2.3 percent.
 - State sales tax collections increased by 3.3 percent in nominal terms; growth in the median state was 1.7 percent.
- Economic drivers of revenue growth mostly maintained a positive trend in the third quarter of 2023 when compared with the same quarter in 2022.
 - Year-over-year growth in real gross domestic product (GDP) was 2.9 percent for the third quarter of 2023.
 - » The seasonally adjusted unemployment rate was 3.7 percent in the third quarter of 2023.

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- » Seasonally adjusted nationwide employment increased 2.1 percent in the third quarter of 2023 compared with the same quarter in 2022, but in 13 states employment was still below levels in the third quarter of 2019.
- » House prices increased 4.8 percent in nominal terms and 1.5 percent in real terms for the third quarter of 2023 compared with a year earlier. Maine was the only state to report year-over-year double-digit nominal growth in house prices.
- » Real personal consumption expenditures increased 2.3 percent for the third quarter of 2023 compared with the same quarter in 2022. Growth in real personal consumption spending was largely driven by the growth in spending on (often non-taxed) services, which comprised about two-thirds of total personal consumption spending. In contrast, inflationadjusted spending on (mostly taxable) goods experienced a modest year-over-year decrease of 0.1 percent in the third quarter of 2023.

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Trends in State and Local Revenues

State and local tax revenues continue to reflect economic changes brought on by the COVID-19 pandemic and the policy responses to it. In the calendar years 2020 and 2021, the federal government injected trillions of dollars into the economy, providing crucial support for consumers, businesses, and state and local governments as they weathered the pandemic. These relief packages also may also have contributed to elevated inflation. As a result of the unprecedented federal aid and high inflation, state and local government revenues substantially increased (especially in nominal terms).

The robust revenue growth prompted several states to cut taxes in 2021, 2022, and 2023. These included income tax rate cuts, refundable income tax credits, gas and sales tax holidays, and one-time rebate checks.

Still, the longer-term fiscal prospects for states remained clouded by challenges, such as financial market volatility, high interest rates, shifting consumption patterns, declining labor force participation, and softening in commercial and residential property markets.

Table 1 shows real state and local government tax revenues from major sources for the third quarters of 2022 and 2023, the first three quarters of 2022 and 2023, and the percentage change between these periods. We present real growth rates to illustrate the impact of inflation on state and local government revenues and how state and local purchasing power may have changed.

TABLE 1
State and Local Government Tax Revenue Trends
Millions of dollars, adjusted for inflation

Tax source	2022 Q3	2023 Q3	YOY percent change	Calendar YTD 2022	Calendar YTD 2023	YOY percent change
Total state-local major taxes	\$424,531	\$414,482	(2.4)	\$1,517,014	\$1,415,505	(6.7)
State major taxes	\$259,761	\$250,500	(3.6)	\$958,284	\$833,476	(13.0)
Personal income tax	117,501	110,509	(6.0)	481,715	377,362	(21.7)
Corporate income tax	24,039	23,230	(3.4)	111,820	94,012	(15.9)
Sales tax	112,502	110,590	(1.7)	347,619	344,672	(8.0)
Property tax	5,720	6,170	7.9	17,131	17,430	1.7
Local major taxes	\$164,770	\$163,982	(0.5)	\$558,730	\$582,030	4.2
Personal income tax	9,732	9,586	(1.5)	39,039	36,455	(6.6)
Corporate income tax	2,387	2,573	7.8	10,119	10,693	5.7
Sales tax	30,768	29,304	(4.8)	92,180	88,156	(4.4)
Property tax	121,883	122,519	0.5	417,392	446,726	7.0

Source: US Census Bureau (tax revenue), with adjustments by the author.

Notes: Q = quarter; YOY = year-over-year; YTD = year-to-date.

Major findings include the following:

• State and local government tax revenues from major sources declined 2.4 percent in real terms in the third quarter of 2023 compared with a year earlier. Year-over-year real growth was negative 6.7 percent in the first three combined quarters of 2023.

- State government tax revenues from major sources declined 3.6 percent in real terms in the third quarter of 2023 relative to a year earlier. Year-over-year real growth for the first three combined quarters of 2023 was negative 13.0 percent. State personal income tax revenues declined 6.0 percent in real terms in the third quarter of 2023 relative to a year earlier. Year-over-year real growth for the first three combined quarters of 2023 was negative 21.7 percent. State corporate income tax revenues declined 3.4 percent in real terms in the third quarter of 2023 compared with a year earlier. Year-over-year real growth for the first three combined quarters of 2023 was negative 15.9 percent. State sales tax revenues declined 1.7 percent in real terms in the third quarter of 2023 compared with the third quarter of 2022. Year-over-year real growth for the first three quarters of 2023 was 0.8 percent.
- Local government tax revenue from major sources declined 0.5 percent in real terms for the third quarter of 2023 compared with the third quarter of 2022. Year-over-year real growth for the first three combined quarters of 2023 was 4.2 percent. Local property taxes, the single largest source of local government tax revenues, increased 0.5 percent in real terms in the third quarter of 2023 compared with the same quarter in 2022. Year-over-year real growth for the first three combined quarters of 2023 was 7.0 percent. Local sales taxes decreased 4.8 percent in real terms for the third quarter of 2023 compared with a year earlier. Local personal income taxes decreased 1.5 percent and local corporate income taxes increased 7.8 percent in real terms in the third quarter of 2023 compared with the same quarter of 2022, but these constitute relatively small shares of local revenues and are concentrated in a few states.

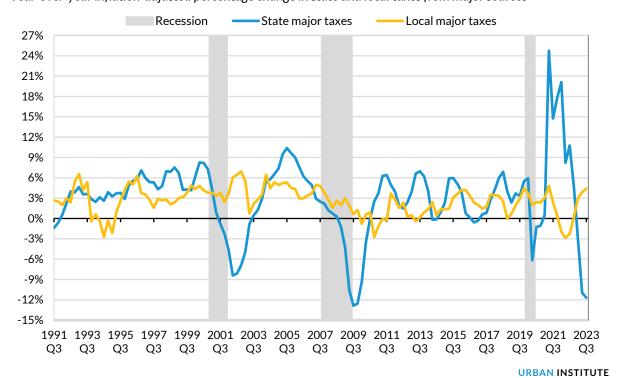
Figure 1 shows the year-over-year percentage change in the four-quarter moving average of inflation-adjusted state and local revenue collections from major sources: personal income tax, corporate income tax, sales tax, and property tax. The four-quarter moving average prevents short-term economic events and policy changes, such as changes to income tax filing deadlines, from distorting broader revenue trends. State tax revenues from major sources decreased 11.7 percent in the third quarter of 2023 by this measure.

Local tax revenues were resilient at the outset of the COVID-19 pandemic due to a strong housing market and solid growth in residential property tax revenues, but they dropped in calendar year 2022 when mortgage interest rates increased and commercial property values fell. Now local tax revenue collections seem to be bouncing back. The four-quarter moving average of inflation-adjusted local tax revenues from major sources showed a 4.4 percent increase in the third quarter of 2023.

Most local governments rely heavily on property taxes, which tend to respond relatively slowly to changes in property values. However, the values of commercial properties (such as hotels, retailers, and offices) have declined since the COVID-19 pandemic, and negatively affected overall local property tax collections, despite soaring residential property values observed in the postpandemic period. These

trends could result in ongoing vulnerability for some local governments. Furthermore, with the Federal Reserve Board's significant interest rate hikes to combat inflation, mortgage costs have risen. These increased borrowing costs have started to cool housing markets in various areas. This shift is likely to lead to a decrease in future residential property tax revenues, further impacting local government finances.

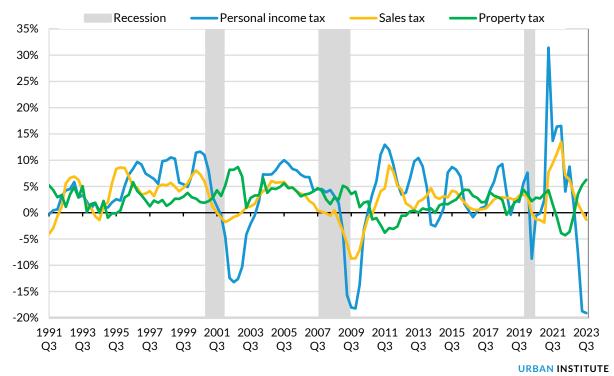
FIGURE 1
State Major Tax Revenues Declined in the First Three Quarters of 2023
Year-over-year inflation-adjusted percentage change in state and local taxes from major sources



Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author. **Notes:** Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation. Data are for four major tax categories only: personal income, corporate income, general sales, and property.

Figure 2 breaks out inflation-adjusted state and local personal income, sales, and property tax revenues. Real state and local personal income tax revenues decreased 19.1 percent in the third quarter of 2023 compared with the same quarter of 2022, using the four-quarter moving average. Real state and local sales tax revenues declined 1.3 percent, while real state and local property taxes, the majority of which are collected by local governments, increased by 6.3 percent for the third quarter of 2023 compared with a year earlier.

FIGURE 2
State and Local Personal Income Tax Revenues Declined Steeply in Recent Months
Year-over-year inflation-adjusted percentage change in major state-local taxes



Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.

Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

State Tax Revenues in the Third Quarter of 2023

Total state government tax revenue collections declined 1.2 percent in nominal terms and 4.3 percent in real terms in the third quarter of 2023 relative to a year earlier, according to US Census Bureau data adjusted by the author (table A1).² Personal income tax revenues declined 6.0 percent and corporate income tax revenues declined 3.4 percent in real terms in the third quarter of 2023 compared relative to a year earlier. Inflation-adjusted sales tax collections decreased 1.7 percent while motor fuel tax collections increased 7.2 percent in the third quarter of 2023 relative to a year earlier.

Table A1 shows (1) nominal and inflation-adjusted growth in state government tax revenue collections from major sources and (2) average quarterly year-over-year growth for the first three quarters of 2023. The average quarterly year-over-year growth rate in overall state tax revenue collections for the first three combined quarters of 2023 was negative 7.0 percent in nominal terms and negative 10.5 percent in real terms.

Revenue varied across regions and states for the third quarter of 2023 (table A2). The Southeast, Great Lakes, and Mideast regions reported year-over-year growth in nominal state tax revenue collections in the third quarter of 2023, while the rest of the regions reported year-over-year declines. The Plains region reported the largest decline at 5.2 percent, while the Southeast region reported the strongest growth at 2.2 percent.³

Twenty-two states reported year-over-year nominal growth in total state tax revenue collections for the third quarter of 2023, with three states (Maryland, New Hampshire, and Virginia) reporting double-digit growth. State tax revenues declined in 28 states, mostly because of steep declines in personal income tax revenues. The largest revenue drop was in Alaska and North Dakota, where total state tax revenues declined 62.2 and 19.3 percent, respectively. Both Alaska and North Dakota have high reliance on natural resource industries, and the revenue declines in these states are primarily attributed to the year-over-year decline in oil and gas prices.

This report also includes revenue growth patterns for the first three combined quarters of 2023. Overall growth in state tax revenues weakened substantially in the first three combined quarters of 2023, which contrasts with the strong growth observed throughout the same period in 2022. The boost in state tax revenues in 2022 was driven by the following factors: the robust stock market observed throughout 2021, the record number of initial public offerings in 2021, the high inflation rate, the boost in spending on taxable goods caused by the COVID-19 pandemic, and the expectation of potential (if unrealized) federal tax hikes (Dadayan 2022a).

State total tax revenues declined 7.7 percent in nominal terms in the first three combined quarters of 2023 compared with the same period in 2022. However, this large average decline reflects a steep revenue decline in California, which was largely caused by the state's delayed income tax filing deadline for Californians impacted by winter storms and not broader economic trends. Still, the median state reported 2.1 percent decline (table A3). There were notable regional and state-level disparities in tax revenue collections. For the first three combined quarters of 2023, the Far West region reported the most significant year-over-year decrease in overall state tax revenues, with a 21.3 percent drop. In contrast, the Southeast region saw the smallest decline, at 0.4 percent.

State tax revenues increased in 16 states and declined in 34 states in the first three combined quarters of 2023 in nominal terms, ranging from a 22.9 percent increase in Wyoming to a 46.3 percent decline in Alaska. Five states (Alaska, Arizona, California, New York, and South Carolina) reported year-over-year double-digit declines in the first three combined quarters of 2023, while Wyoming was the only state to report year-over-year double-digit increase.

Personal Income Taxes

State personal income tax revenues declined 2.9 percent in nominal terms and 6.0 percent in real terms in the third quarter of 2023 compared with the same period in 2022. The median state reported a decline of 0.4 percent in nominal terms. The average quarterly year-over-year growth rate in state personal income tax collections was negative 16.3 percent in nominal terms and negative 19.5 percent in real terms in the first three quarters of 2023 (table A1).

The performance of personal income tax revenues exhibited considerable variation across different regions and states. The New England, Great Lakes, and Southeast regions reported year-over-year growth in personal income tax revenue collections in the third quarter of 2023 while the rest of the regions reported declines (table A2). The Plains and Southwest regions saw the steepest declines, at 16.3 and 13.9 percent, respectively.

Twenty-two states reported year-over-year declines in personal income tax revenues in the third quarter of 2023, with seven states reporting double-digit declines. The declines in personal income tax revenues were largely expected and are, in part, due to state income tax rate cuts and the weakness in the stock market.

State personal income taxes declined 18.5 percent in nominal terms and 21.7 percent in real terms in the first three quarters of year 2023 compared with the same period in 2022 (table A3). Growth in the median state was negative 10.7 percent in nominal terms during this period. State personal income tax revenues increased in seven states and declined in 35 states in the first three combined quarters of 2023, ranging from a 48.5 percent decline in Arizona to 10.4 percent increase in Wisconsin.

To get a clearer picture of the underlying trends in personal income tax collections, we examine trends in the four major components: withholding, quarterly estimated payments, final payments, and refunds. The US Census Bureau does not collect data on the individual components of personal income tax collections. The data presented here were collected by the author directly from the states.

Table 2 shows the growth for each major component of personal income tax collections in the past seven quarters. Delayed income tax filing due dates led to large fluctuations in nonwithholding income tax revenues during the COVID-19 pandemic. Income taxes have also become more volatile because a large share of income is generated from nonwage income (i.e., capital gains). Thus, swings in the stock market, coupled with taxpayer decisions on when to realize capital gains and losses, contributed to personal income tax collection volatility.

Year-over-year growth in overall personal income tax revenues was strong in the first and second quarters of 2022, largely related to elevated inflation, which led to bracket creep in some states. However, personal income tax revenues declined in the last five quarters, largely because of stock

market volatility. In addition, weakness in personal income tax revenues was also caused by personal income tax rate cuts in several states. Finally, the declines are also partially due to newly enacted pass-through entity taxes that shifted revenues from personal income taxes to corporate income taxes in some states.

TABLE 2
Growth in State Government Personal Income Tax Components

	Tax Year 2022				Tax Year 2023		
Personal income tax components	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3
Withholding	12.9	7.5	3.1	(0.6)	0.3	3.8	3.3
Estimated payments	16.4	(5.9)	(18.4)	(16.2)	(44.6)	(44.5)	(26.0)
Final payments	45.2	41.3	23.7	44.3	(0.6)	(39.3)	3.5
Refunds	12.1	12.7	81.3	87.6	28.3	3.7	(14.4)
Total	17.7	14.0	(1.6)	(6.0)	(18.5)	(28.0)	(2.4)

Source: Individual state data, analysis by the author.

Year-over-year nominal percentage change

Notes: Q = quarter. The percentage changes for total personal income tax differ from data reported by the US Census Bureau.

As of now, 36 states have enacted a pass-through entity tax. This is in part a workaround to the 2017 Tax Cuts and Jobs Act's \$10,000 cap on the federal individual income tax deduction for state and local taxes because state and local taxes are fully deductible as a business expense in calculating business earnings for determining federal tax liability (Dadayan and Buhl 2023). Generally, pass-through entity taxes allow certain taxpayers to reduce their federal taxable liability by paying taxes at the entity rather than the individual owner level. Table A7 lists all states that enacted a pass-through entity tax and their respective effective dates. State pass-through entity tax structures and rules vary widely, which can lead to complications, especially for businesses operating across state lines. States also differ in their classification of pass-through entity taxes. Some states categorize these taxes as corporate income taxes (because they are paid by businesses), while others categorize them as personal income taxes (as they replace pass-through income). A few states even categorize them for both personal and corporate income taxes.

Withholding

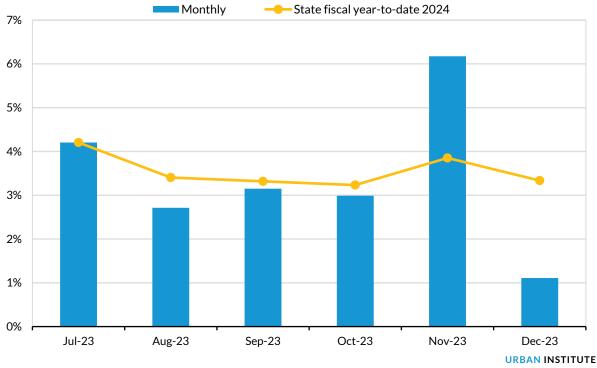
Withholding is usually a good indicator of the current strength of personal income tax revenue and the economy because it comes largely from current wages and salaries and is less volatile than estimated payments or final settlements. However, bonuses and stock options received by employees are also subject to withholding and can have a significant impact on withholding growth rates.

Table A4 shows year-over-year nominal growth in withholding for the last seven quarters for all states with a broad-based personal income tax. The strong growth in average wages as well as people taking higher-paying jobs led to stronger withholding tax revenue collections in the first half of 2022. In addition, heightened inflation also contributed to the stronger growth in withholding, particularly in states that have progressive income tax structures but do not adjust their tax brackets for inflation.

After exceptionally strong growth observed in the first half of 2022, withholding tax collections have substantially weakened since then. Year-over-year growth in withholding was 3.3 percent in nominal terms and 0.1 percent in real terms in the third quarter of 2023. All regions, except the Southwest, reported year-over-year growth in nominal withholding in the third quarter of 2023. The Great Lakes region reported the strongest year-over-year growth at 9.6 percent, while the Southwest region experienced a decline of 5.9 percent.

Thirty-one of 41 states that levy tax on personal income reported growth in withholding in the third quarter of 2023 compared with a year earlier. Growth rates ranged from 0.2 percent in Missouri to 16.5 percent both in Illinois and Indiana. Ten states reported year-over-year declines in withholding in the third quarter of 2023, with the largest declines observed in Arizona (15.7 percent) and West Virgina (13.4 percent), primarily attributed to income tax rate cuts.

FIGURE 3
Solid Growth in Withholding in the First Half of Fiscal Year 2024
Nominal year-over-year percentage change in withholding tax collections, monthly and fiscal year to date



Source: Individual state government agencies, analysis by the author.

Figure 3 shows monthly and fiscal year-to-date nominal growth rates in withholding between July 2023 and December 2023, which corresponds to the first six months of state fiscal year 2024 in 46 states. Monthly data should be viewed with caution because they may include one-time payments or a given month may have fewer tax processing days than the same month in the prior year.

During the first half of state fiscal year 2024, withholding exhibited solid nominal growth, characterized by robust year-over-year growth in November 2023. However, this was followed by a notably weaker growth in December 2023, which is likely attributable to a reduction in bonus payments compared to those in December 2022.

Estimated Payments

Higher-income taxpayers (and self-employed taxpayers) make estimated tax payments (also known as declarations) on their income not subject to withholding. This income often comes from investments, such as capital gains realized in the stock market, or from self-employment or business income. Estimated payments normally represent less than a quarter of overall income tax revenues, but because of their volatility, they can have a large impact on the direction of overall collections.

The first estimated payment for each tax year is typically due in April in most states; the second, third, and fourth payments are generally due in June, September, and January, respectively (although many high-income taxpayers make the last estimated payment in December so that it is deductible on their federal tax return for that tax year rather than the next). In some states, the first estimated payment includes payments with extension requests for income tax returns for the previous tax year and is thus related partly to income received in that previous tax year. Subsequent estimated payments are generally related to income for the current tax year, although that relationship is often quite loose.

As noted, because the first estimated payment in April contains a combination of payments related to the current and prior tax year, it is not a good indicator of the current strength of the economy. The second, third, and fourth estimated payments are easier to interpret because they are almost always related to the current year, and they can give a real-time look at how the economy and income tax base are doing. Weakness in these payments can reflect weakness in nonwage income, such as that generated by the stock market. However, it can also be "noisy" in the sense that it reflects taxpayers' responses to tax payment rules as well as to expected nonwage income.

In this report, we present estimated payments for September 2023, which corresponds to the third estimated payments for tax year 2023, as well as combined estimated payments for the April through September 2023 period, corresponding to the first three estimated payments for tax year 2023 (table A5).

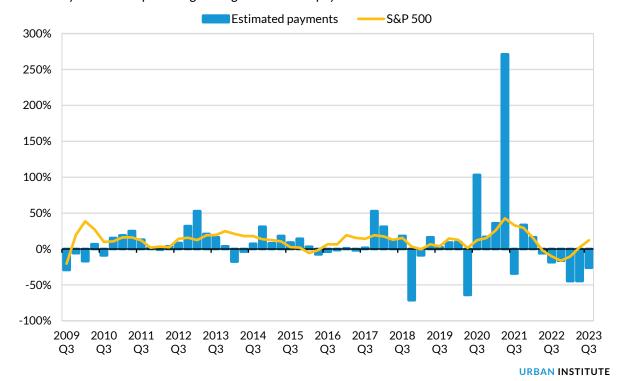
Declines in these payments were widespread across states. In the 38 states with comprehensive data, the median third estimated payments for tax year 2023 (filed in September 2023) declined sharply, by 23.4 percent from the previous year. This decline is notably different from the 7.8 percent increase in the median third estimated payment for tax year 2022. From April through September 2023, estimated payments saw a steep decline of 39.5 percent, with the median state reporting a 27.1 percent decrease. Thirty-seven of the 38 states (excluding Ohio) reported year-over-year declines in estimated payments for the first three estimated payments combined. A significant decline was expected, primarily due to the poor stock market performance in 2022 and 2023, reduced capital gain realizations, and shifts of some partnership income to the entity level.

The largest decline in estimated payments was in California, where estimated payments decreased by \$9.2 billion or 64.4 percent in the April through September 2023 period compared with the same period a year earlier. The steep decline in California is partly caused by the weak stock market but also due to the delayed income tax filing deadline because of severe weather. It is likely that many Californian taxpayers chose to delay their estimated income tax payments.

FIGURE 4

Large Volatility in Estimated Payments

Year-over-year nominal percentage change in estimated payments and S&P 500 Index



Source: Individual state government agencies and Yahoo Finance (S&P500), analysis by the author.

Figure 4 shows year-over-year quarterly percentage change in estimated payments and S&P 500 Index for the past 15 years. The longer-term trends indicate substantial volatility in estimated payments, which is partially caused by volatility in the stock market as well as by taxpayer responses to actual and expected federal and state tax policy changes, which affect timing of the capital gains realizations.

Because temporary changes in timing can alter revenue patterns significantly, we strongly encourage relying on combined quarterly numbers and longer-term trends. Year-over-year growth in estimated payments was more in line with the growth in the stock market in 2022. Both estimated payments and the stock market increased in the first quarter of 2022 but declined in the second, third, and fourth quarters of 2022. Both the stock market and estimated payments also declined in the first quarter of 2023. Although the stock market improved in the second and third quarters of 2023, estimated payments saw significant declines in both quarters.

Final Payments

Final tax payments typically account for a small share of total personal income tax revenues in the first, third, and fourth quarters of the tax year and a much larger share in the second quarter due to the April 15 personal income tax filing deadline.⁶ Final payments accounted for 5.0 percent of all personal income tax revenues in the third quarter of 2022 and 5.3 percent in the third quarter of 2023.

Table A6 shows year-over-year nominal growth rates in final payments for the April through September period of 2022 and 2023. Year-over-year growth in final payments was robust for the April through September 2022 period, at 39.7 percent. All states but Idaho and New Mexico reported growth in final payments from April to September 2022 compared with a year earlier, with 33 states reporting double-digit percentage growth.

Final payments fell sharply, by 35.9 percent, in April through September 2023 compared with the same period in 2022; the median state saw a 30.4 percent decline. All states but North Dakota and West Virginia reported year-over-year declines in final payments in the April through September 2023 period. Although most states anticipated a drop in final payments, the actual year-over-year declines were more severe than anticipated, creating a downward pressure for personal income tax revenues.

Refunds

By definition, personal income tax refunds represent a negative share of personal income tax revenues and usually are a small amount in the third and fourth quarters of the tax year and a much larger negative amount in the first and second quarters of the tax year.

Refund payments declined 14.4 percent in the third quarter of 2023 compared with the same quarter in 2022, resulting in states issuing \$1.7 billion less in refunds. A total of 16 states reported lower refund amounts, while 24 states increased their refund payouts in this period compared with the third quarter of 2022. The increase in refunds in these 24 states can be partially attributed to reduced tax liabilities, as well as rebates issued by state officials to mitigate the impact of high inflation, which were sometimes classified as income tax refunds. In addition, the larger refunds in the 24 states are in part due to income tax rate reductions enacted in several states.

Actual versus Forecasted Personal Income Tax Revenues

We collect data on actual and forecasted amounts for monthly personal income tax revenue from the states. Monthly personal income tax forecast information is available for 24 states. In table 3, we present data for the third quarter of 2023.

TABLE 3
Actual Versus Forecasted State Personal Income Tax Revenues

State	2022 Q3 actual (\$ millions)	2023 Q3 actual (\$ millions)	2023 Q3 forecast (\$ millions)	Percent change, 2023 Q3 vs 2022 Q3	Percentage variance, 2023 Q3 actual from forecast	Forecast date
Median				-3.7%	-1.3%	
Average	\$71,738	\$67,718	\$68,220	-5.6%	-0.7%	
Arizona	1,747	1,269	1,511	(27.4)	(16.1)	Jun-23
Arkansas	845	817	754	(3.3)	8.5	May-23
California	24,552	22,558	22,617	(8.1)	(0.3)	May-23
Colorado	2,689	2,544	2,656	(5.4)	(4.2)	Sep-23
Idaho	481	501	488	4.1	2.7	Jul-23
Indiana	1,718	1,858	1,711	8.1	8.6	Apr-23
Kansas	1,049	1,004	1,050	(4.3)	(4.4)	May-23
Maine	596	609	619	2.2	(1.7)	May-23
Massachusetts	4,913	5,097	4,928	3.7	3.4	Aug-23
Michigan	3,514	3,222	3,502	(8.3)	(8.0)	May-23
Minnesota	3,680	2,740	2,553	(25.5)	7.3	Feb-23
Mississippi	634	569	584	(10.3)	(2.6)	Nov-22
Montana	508	481	908	(5.3)	(47.0)	Nov-22
Nebraska	784	791	834	0.9	(5.2)	Apr-23
New York	11,540	11,443	11,364	(0.8)	0.7	Apr-23
North Dakota	115	64	73	(43.7)	(11.7)	Nov-21
Ohio	2,681	2,679	2,707	(0.1)	(1.1)	Jun-23
Oklahoma	809	775	819	(4.2)	(5.4)	Feb-23
Pennsylvania	3,757	3,770	3,883	0.3	(2.9)	Jun-23
Rhode Island	440	444	436	0.9	1.9	May-23
South Carolina	1,870	1,655	1,503	(11.5)	10.1	Sep-23
Vermont	296	269	245	(9.1)	9.9	Jul-23
West Virginia	608	608	496	(0.1)	22.5	Jan-23
Wisconsin	1,912	1,950	1,980	2.0	(1.5)	May-23

Source: Individual state data, analysis by the author.

Actual personal income tax collections in the third quarter of 2023 were lower than forecasted in 14 of 24 states, with an average forecast underestimate of 0.7 percent and a median underestimate of 1.3 percent (table 3). Note that some states regularly update their monthly revenue forecasts, while others prepare monthly revenue forecasts only once a year. Therefore, the variance between actual and forecasted revenues depends on the forecast date. In addition to the timing of the forecasts, the considerable variance between actual and forecast revenues in recent quarters also reflects the uncertainty generated by current global geopolitical crises, elevated inflation, federal monetary policy actions, and state fiscal policy actions.

Corporate Income Taxes

Corporate income tax revenues showed strong growth throughout 2022, but the picture for corporate income tax revenues was more mixed in the first three quarters of 2023. Total state corporate income tax revenues declined 0.3 percent in nominal terms and 3.4 percent in real terms in the third quarter of 2023 relative to a year earlier (table A1). This overall decline was primarily influenced by significant decreases in states like California, Illinois, and New Jersey, with the notable drop in California attributed to a delayed income tax filing deadline until November 2023. If we exclude California, corporate income tax revenues for the rest of the nation increased 0.8 percent in nominal terms. The median state, however, reported a 2.4 percent decline in nominal terms. The average quarterly year-over-year growth rate in state corporate income tax collections for the first three quarters of 2023 was negative 12.6 percent in nominal terms and negative 15.9 percent in real terms.

State corporate income tax revenue is highly volatile because corporate profits and the timing of tax payments can vary and shift across quarters. Further, most states collect a small share of state revenues from corporate taxes and can therefore experience large fluctuations in percentage terms with little overall budgetary impact.

The Far West, Great Lakes, New England, and Southwest regions reported year-over-year declines in state corporate income tax revenue collections in the third quarter of 2023, while the rest of the regions reported growth. The Rocky Mountain region saw the strongest increase, at 26.1 percent, followed by the Plains region, at 8.5 percent. The New England region saw the steepest year-over-year decline in corporate income tax revenues, at 6.8 percent.

Twenty-one states reported year-over-year growth in corporate income tax collections, while 24 states reported declines in the third quarter of 2023 (table A2). The strongest growth in dollar value was in Colorado, where corporate income tax revenues increased by \$0.3 billion, or 66.3 percent, in the

third quarter of 2023 compared with the same quarter in 2022. The steepest decline in dollar value was in California, where corporate income tax revenues declined by \$0.2 billion, or 5.5 percent.

Year-over-year nominal growth in state corporate income tax revenues was negative 12.6 percent for the first three combined quarters of 2023, with a median state decline of 0.4 percent. Nineteen states reported year-over-year growth, while 26 states reported declines in nominal terms (table A3).

Before the COVID-19 pandemic, states were forecasting lower corporate income tax collections, mostly because of higher costs for business inputs and a weakened global economy (Dadayan 2020b). State corporate income tax revenues, however, showed strong overall growth after the initial shock of the pandemic, thanks in part to federal COVID relief. Now we are seeing a reversal of that trend. According to data from the Bureau of Economic Analysis, US corporate profits declined by \$19 billion, or 0.6 percent, in the third quarter of 2023 compared with the same quarter of 2022.⁷ Declines in corporate profits were particularly steep in the financial sector, which suffered a 14.1 percent year-over-year decline in corporate profits in the third quarter of 2023.

The future of state corporate income tax collections remains unpredictable, driven in part by the potential for federal policy changes following the 2024 presidential elections and continued uncertainty about the economy. According to the Conference Board's survey, the Consumer Confidence Index declined in October 2023, marking the third consecutive monthly decline. Pessimism in consumer confidence was due to rising prices, higher interest rates, political instability, and concerns over new wars and conflicts. However, in November and December 2023, there was a notable rebound in consumer confidence, driven by increasingly positive assessments of business conditions and job availability.

General Sales Taxes

State general sales tax collections increased by 1.5 percent in nominal terms but declined by 1.7 percent in real terms for the third quarter of 2023 compared with the same period in 2022 (table A1). Growth in the median state was 1.6 percent in nominal terms. The average quarterly year-over-year growth rate in state general sales tax collections for the first three quarters of 2023 was 3.2 percent in nominal terms, but negative 0.8 percent in real terms.

Sales tax collections declined in the Far West and New England regions but increased in the rest of the regions for the third quarter of 2023 compared with the same period in 2022. The Plains region reported the largest average year-over-year growth at 7.0 percent, while the Far West and New England regions reported declines of 1.1 and 0.3 percent, respectively (table A2).

Thirty-five of 45 states with broad-based sales taxes reported year-over-year growth in sales tax collections for the third quarter of 2023, while 10 states reported declines. Iowa saw the strongest year-over-year growth in sales tax revenues at 13.5 percent, while Louisiana reported the steepest decline at 3.7 percent.

State sales tax revenues increased by 3.1 percent in nominal terms in the first three combined quarters of 2023, compared with the same period in 2022 (table A3). During this period, all regions experienced year-over-year growth. However, among individual states, eight reported declines in sales tax revenues, while 37 states exhibited growth.

Overall growth in sales tax revenues weakened substantially throughout 2023. Strong growth in general sales taxes during 2022 was driven partly by price increases from high inflation. Yet, it seems consumers have adjusted their spending habits, reducing purchases because of persistent high inflation and interest rates. During the COVID-19 pandemic, consumers shifted purchases from services to physical goods, but recent spending trends suggest a return to prepandemic patterns.

Many state officials have expressed concerns about the sales tax performance over the longer run, especially as consumers shift back to spending more on services, which are largely not subject to sales tax (Dadayan and Rueben 2021). Although some states have expanded their sales tax bases to include some services, many services are still not subject to state sales tax. And some states, such as Arizona and Missouri, have banned taxing services altogether.

Motor Fuel Taxes

Motor fuel tax collections increased 10.6 percent in nominal terms and 7.2 percent in real terms for the third quarter of 2023 compared with the same period in 2022 (table A1). Year-over-year growth in the median state was much weaker, at 2.9 percent in nominal terms. The average quarterly year-over-year growth rate in state motor fuel tax collections was 6.8 percent in nominal terms and 2.7 percent in real terms in the first three quarters of 2023.

All regions reported year-over-year growth in motor fuel tax revenue collections during the third quarter of 2023. The New England region reported the strongest growth at 33.9 percent while the Southwest region had the weakest average growth at 1.5 percent.

Thirty-five states reported year-over-year growth in motor fuel sales tax collections for the third quarter of 2023, while 14 states reported declines (table A2). The largest year-over-year decline was in Hawaii, with a 35.0 percent drop in motor fuel sales tax collections. Connecticut saw the strongest year-over-year growth, largely due to a weak base for comparison.

State motor fuel sales tax revenues increased 6.9 percent in the first three quarters of 2023 compared with the same period in 2022; the median state saw 2.1 growth (table A3). Thirty-nine states reported year-over-year growth in motor fuel sales tax revenue collections, while 11 states reported declines during this period.

Enacted gas tax holidays were anticipated to result in a temporary reduction of motor fuel sales tax revenues. The growth observed in the second quarter of 2023 signifies a reversal of the earlier temporary decline. States that enacted gas tax holidays include Connecticut (from April 1, 2022, through December 31, 2022), Florida (for the month of October 2022), Georgia (from March 18, 2022, through January 11, 2023), Maryland (from March 18, 2022, through April 16, 2022), and New York (from June 1, 2022, through December 31, 2022). Additionally, several states, such as Colorado, Illinois, and Kentucky, temporarily suspended gas tax increases, which also had a detrimental effect on motor fuel sales tax revenue collections.

Changing fuel prices, general increases in fuel efficiency, purchases of electric or hybrid vehicles, and changing driving habits all affect gasoline consumption and motor fuel taxes. Changes in state motor fuel tax rates also affect motor fuel sales tax collections. States differ in their motor fuel sales tax structures. In 28 states, motor fuel sales taxes are structured as a fixed cent-per-gallon rate, while in 22 states at least a portion of the motor fuel tax rate is tied to a variable, such as the price of gasoline, inflation, or another metric.¹⁰

Oil and gas prices are typically subject to high volatility. The high prices largely benefitted oil-dependent states, at least in the short-term (Dadayan 2022b). The increases in prices were expected to boost motor fuel tax revenues in states with a variable tax rate and that did not enact gas tax holidays or suspend motor fuel tax rate adjustments.

Other Taxes

The US Census Bureau's quarterly data on state tax collections provide detailed information for some smaller revenue sources, including state property taxes, tobacco excise taxes, alcoholic beverage excise taxes, and motor vehicle and operators' license taxes. In table A8, we present year-over-year growth rates for a four-quarter moving average of inflation-adjusted revenues at the national level. In the third quarter of 2023, states collected \$64.3 billion from these combined smaller tax sources, constituting approximately 19.9 percent of total state tax collections.

Compared with major tax sources, revenues from smaller state taxes have seen less volatility. The four-quarter moving average of inflation-adjusted revenues from smaller state tax sources showed a

4.4 percent decline for the third quarter of 2023 compared with the same quarter in 2022. State property taxes, which represent a small portion of overall state tax revenues, increased 1.1 percent. Tax revenues from tobacco product sales declined 10.4 percent, tax revenues from alcoholic beverage sales declined 1.6 percent, and revenues from motor vehicle and operators' licenses declined 1.7 percent. Finally, revenues from all other smaller tax sources declined 5.1 percent.

Preliminary Review of State Tax Revenues in the Fourth Quarter of 2023

The Urban Institute regularly collects monthly state tax revenue data for all states. Preliminary data from 46 states show some rebounding in nationwide state tax revenue collections in the fourth quarter of 2023. However, most of the growth is attributable to the strong revenue collections in California, where revenues were temporarily boosted because of delayed income tax payments. Nominal state tax revenue collections increased by 6.1 percent in the fourth quarter of 2023 compared with the same period in 2022, primarily due to growth in income tax revenues. The median state, however, reported only a 0.7 percent growth (table A9). State tax revenues increased in 27 states in nominal terms, while 19 states reported year-over-year declines for the fourth quarter of 2023.

Personal income tax collections increased by 9.8 percent in the fourth quarter of 2023 compared with the same period a year earlier. The median state, however, reported a 0.6 percent decline in nominal terms. However, the strong national growth was again largely driven by California and its delayed income tax filing deadline. If we exclude California, personal income tax revenues showed a year-over-year increase of 0.6 percent in the fourth quarter of 2023. According to preliminary data, 22 states reported year-over-year declines in personal income tax revenues in the fourth quarter of 2023, with six states reporting double-digit declines. Overall, it appears that growth in withholding has moderated, partly due to personal income tax rate cuts in several states. Additionally, growth in estimated payments has substantially weakened in recent quarters, indicating that upper-income taxpayers reduced their tax payments in response to stock market declines and lower capital gain realizations.

Year-over-year growth in state corporate income tax revenues was 12.0 percent in the fourth quarter of 2023; growth in the median state was only 2.3 percent. Just like in the case of personal income tax revenues, the robust growth in the national average can be largely attributed to California. Excluding California from the analysis, corporate income tax revenues exhibited a year-over-year decrease of 1.3 percent in the fourth quarter of 2023. Large variations were observed across the states, with corporate income tax revenues increasing in 23 states, 15 of them reporting double-digit growth.

Conversely, 20 states reported declines in corporate income tax revenues, with 11 states reporting double-digit declines.

Finally, state general sales tax collections increased 3.3 percent in the fourth quarter of 2023 compared with the same quarter in 2022; growth in the median state was 1.6 percent. Twenty-nine states reported growth in sales tax collections, while 11 states reported declines.

Looking ahead, state tax revenues will likely show continued volatility in the short term due to uncertainties in the economy and the implications of both state policy decisions and federal monetary policies.

Previously, we warned that robust revenue growth observed in fiscal years 2021 and 2022 was in part due to a temporary boost in select economic drivers, including a soaring stock market, increased capital gains realizations, and a sharp increase in initial public offerings, all of which have substantially weakened since then. Furthermore, several states enacted tax cuts in the past two years (Auxier and Weiner 2023). Depending on their size and structure, these tax cuts could leave some states with budget holes in the coming fiscal years as temporary federal aid funds diminish and the strength of the economy wanes. These tax cuts can also exacerbate the risk of structural deficits, leading states to either reverse earlier tax cuts or raise other taxes or cut funding for services to balance budgets (Lazere 2022).

Factors Driving State Tax Revenues

Tax revenues vary across states and time because of three major factors: changes in the economy (which often differ from state to state), the interaction of economic changes with a state's specific tax system, and legislated changes in tax rates or rules. The next two sections discuss changes in both economic conditions and recently legislated tax changes.

Economic Indicators

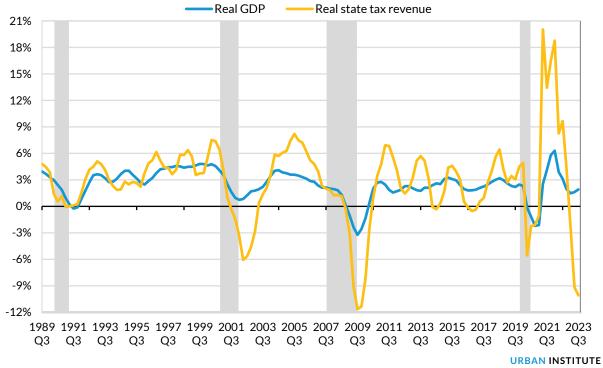
In general, total state tax revenues rise when the state's economy grows, income taxes grow when resident incomes rise, sales taxes rise with increased consumer purchase of taxable items, and property taxes increase with house prices. However, major events like the COVID-19 pandemic and the federal and state policy responses to it can alter these standard revenue and economic trends.

State Gross Domestic Product

Figure 5 shows year-over-year growth for four-quarter moving averages in real GDP and real state tax revenue. We present moving averages to smooth short-term fluctuations and illustrate the interplay between the state of the economy and state revenues. As shown in figure 5, growth in real GDP was weak in the first three quarters of 2023, while real state revenues saw steep declines. Year-over-year growth for the four-quarter moving average was 1.9 percent in real GDP and negative 10.1 percent in real state tax revenues in the third quarter of 2023.

However, volatility in state tax revenue is not fully explained by changes in real GDP, a broad measure of the economy. State tax revenues became far more volatile in the past two decades, mostly due to changes in state tax rates and states' growing reliance on income taxes, some of which are progressive and dependent on volatile non-wage income sources such as stock options and capital gains. This was particularly true for the second half of 2020 and all of 2021 when the stock market soared and led to larger capital gains realizations and increases in nonwithholding income tax payments. However, the stock market declined in 2022 performed weakly for much of 2023. In calendar year 2022, the S&P 500 index saw an average annual decrease of 4.1 percent, a stark contrast to the average annual growth of 32.8 percent observed in calendar year 2021. In comparison, calendar year 2023 experienced an average annual growth of 4.5 percent; however, this was relative to a lower base. Notably, there was a significant improvement in the stock market during the final quarter of calendar year 2023.

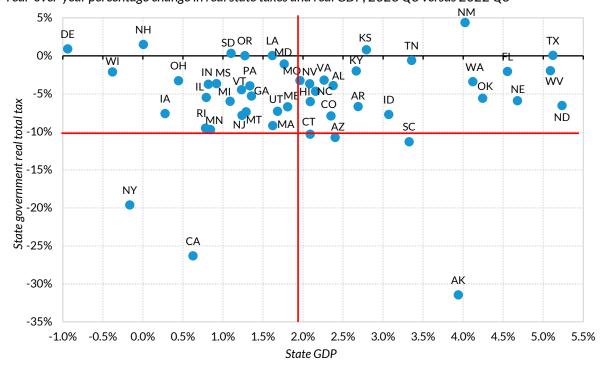
FIGURE 5
State Tax Revenue Is More Volatile Than the Economy
Year-over-year percentage change in real state taxes and real GDP



Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author. **Notes:** Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

States vary substantially in correlations between growth rates in real GDP and real state tax revenues. Figure 6 shows for each state the four-quarter moving averages in real GDP and real state tax revenues for the third quarter of 2023 compared with the third quarter in 2022. By this measure, real state GDP increased in 47 states, while real state tax revenues increased in only nine states. The year-over-year change in real state GDP ranged from 5.2 percent in North Dakota to negative 0.9 percent in Delaware; the change in real state tax revenues ranged from 24.5 percent in Wyoming to negative 31.4 percent in Alaska. Large swings in Wyoming's and other energy-dependent states' revenue collections reflect volatile oil prices (Dadayan and Boyd 2016). In addition, the relationship between economic growth and revenue growth was also impacted by state tax cuts over the last three years.

FIGURE 6
Growth Disparity: State Tax Revenues versus State GDP
Year-over-year percentage change in real state taxes and real GDP, 2023 Q3 versus 2022 Q3



URBAN INSTITUTE

Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author. **Notes:** Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation. Red lines show US median. Wyoming is an outlier and is excluded from the figure.

State Unemployment and Employment

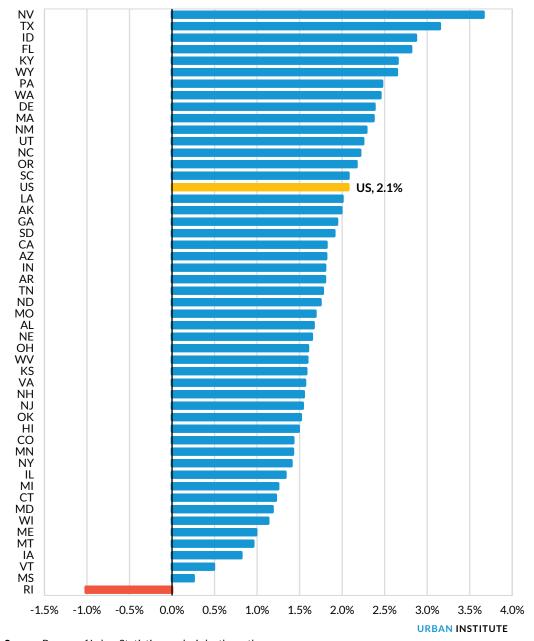
The unemployment rate for the nation averaged 3.7 percent in the third quarter of 2023. Unemployment rates ranged from 1.8 percent in Maryland to 5.4 percent in Nevada for the third quarter of 2023, although unemployment rates varied for different socioeconomic and demographic groups in each state. According to the latest data, the national unemployment rate remained at 3.7 percent in the fourth quarter of 2023.

Nationwide employment increased 2.1 percent in the third quarter of 2023 compared with the same quarter in 2022 (figure 7). In the third quarter of 2023, every state except Rhode Island experienced year-over-year growth in employment. However, during the same period, 13 states still reported lower employment levels compared to the third quarter of 2019. The range of year-over-year employment growth varied significantly, with Rhode Island seeing a decrease of 1.0 percent and Nevada experiencing the highest increase at 3.7 percent.

FIGURE 7

Continued Employment Expansion in the Third Quarter of 2023

Year-over-year percentage change in employment, 2023 Q3 versus 2022 Q3



Source: Bureau of Labor Statistics, analysis by the author.

 $\textbf{Notes:} \ Year-over-year\ change\ is\ the\ percentage\ change\ of\ seasonally\ adjusted\ employment.$

As of November 2023, state and local governments employed around 23,000 fewer people than they did before the COVID-19 pandemic, despite having many vacancies advertised. Early in the pandemic, states and localities cut public-sector jobs to address actual and anticipated budgetary challenges caused by the pandemic or in response to reduced demand. In addition, some government sector workers (especially teachers) retired or did not return to the public sector. Even with federal aid

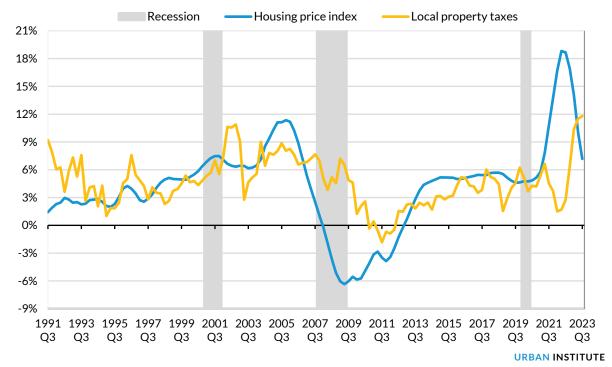
and stronger budgets, many state and local governments have struggled to refill positions, and these early declines have not been fully reversed.

Among private-sector jobs, current employment numbers are now above prepandemic levels, but there are still large variations across different sectors and industries. The share of workers employed declined dramatically for the leisure and hospitality sector, which as of November 2023 employed around 203,000 fewer people than before the COVID-19 pandemic. On the other hand, the job market thrived for the trade, transportation, and utilities sector, which as of November 2023 employed around 1.1 million more people than before the pandemic.

Housing Market

House prices are an important determinant of local property taxes, though changes in property tax revenues often lag property price changes. Assessment lags and assessment caps can affect how quickly house price changes translate into property tax revenue changes. Declines in house prices usually lead to declines in property taxes, while growth in house prices usually leads to growth in property tax revenues.

FIGURE 8
Housing Prices Skyrocketed During the Pandemic but Growth is Moderating Now
Year-over-year nominal percentage change in house prices versus local property taxes



Sources: US Census Bureau (property taxes) and Federal Housing Finance Agency (house price indexes), analysis by the author. **Notes:** Year-over-year change is the percentage change of four-quarter moving averages.

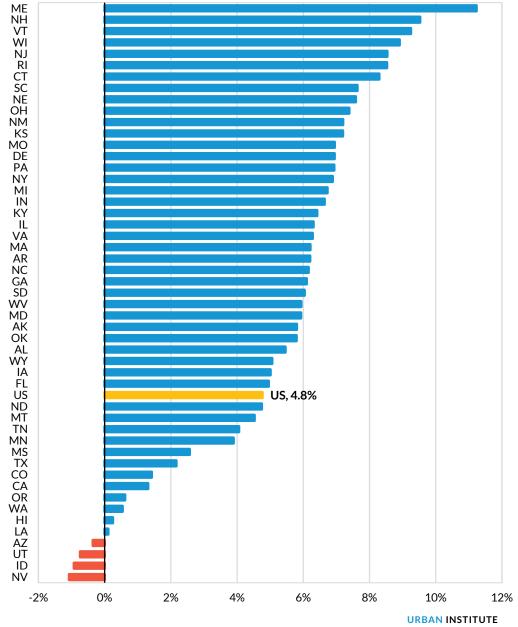
Figure 8 shows year-over-year percentage changes in the four-quarter moving average of the house price index and local property taxes in nominal terms. National average house prices showed robust growth during the COVID-19 pandemic, but this growth has been tapering off in 2023. House prices appreciated 7.2 percent for the third quarter of 2023 compared with a year earlier; year-over-year growth in local property taxes was 11.2 percent for the same period, based on four-quarter moving averages. Despite the strength in house prices, local government property tax revenues fluctuated substantially since the pandemic, likely because of declines in commercial property tax revenues caused by the pandemic and the increase in remote work.

Figure 9 shows year-over-year nominal percentage change in house price indexes in the third quarter of 2023 for all states. House price indexes increased in 46 states but declined in four states for the third quarter of 2023 compared to a year earlier, with changes ranging from a 1.1 percent decline in Nevada to a 11.2 percent increase in Maine. Year-over-year growth for the nation in the third quarter of 2023 was 4.8 percent, which is a slight improvement compared to the 4.6 percent growth observed in the second quarter of 2023.

The COVID-19 pandemic generally did not negatively affect residential real estate property values. In fact, housing markets experienced a boost as demand for new homes exceeded supply during the initial months of the pandemic (Duca and Murphy 2021). In contrast, the pandemic's impact on commercial real estate property values, and subsequently, commercial property tax revenues, has been negative and remains uncertain.

Forecasting the long-term impact of the COVID-19 pandemic on residential real estate and commercial properties remains challenging, given the uncertainty surrounding the persistence of remote work patterns amid the broader economic transition to prepandemic norms. Furthermore, the extent to which the Federal Reserve Board's interest rate hikes will continue to impact housing markets remains uncertain. Higher borrowing costs for mortgages have weakened home sales as interest rates increased. We could see a continued weakening in residential property values and associated property taxes, though this could be mitigated if mortgage interest rates stabilize or fall. The Fannie Mae Home Purchase Sentiment Index reflects a lack of consumer confidence in the housing market, primarily driven by concerns related to housing affordability, economic uncertainty stemming from increased inflation, elevated housing costs, and rising mortgage rates. ¹¹ The future of commercial property values and nonresidential property tax revenues is even less clear. As business leases come due, many companies are reevaluating their office space needs in terms of both size and location. This has resulted in a rise in commercial property vacancies in numerous urban centers.

FIGURE 9
Most States Reported Growth in Housing Prices in the Third Quarter of 2023
Year-over-year percentage change in house prices, 2023 Q3 versus 2022 Q3



Source: Federal Housing Finance Agency (house price indexes for all transactions, seasonally not adjusted, analysis by the author.

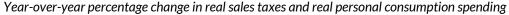
Personal Consumption Expenditures

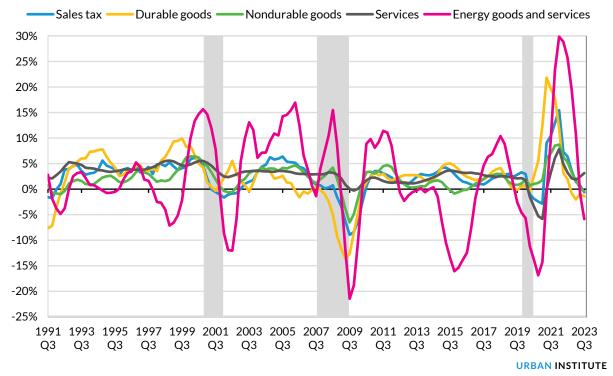
"Personal consumption expenditures" is a measure of national consumer spending. The measure shows the value of the goods and services purchased by American consumers and is correlated with the base for states' sales taxes. Figure 10 displays the year-over-year percentage change in the four-quarter

moving average of real personal consumption expenditures for services, durable goods, and nondurable goods as well as for aggregate state real sales tax collections. We also show trends in the consumption of energy goods and services.

FIGURE 10

Continued Weakness in Spending on Goods in the Third Quarter of 2023





Sources: US Census Bureau (sales taxes) and Bureau of Economic Analysis (NIPA table 2.3.5), analysis by the author. **Notes:** Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

Before the COVID-19 pandemic, spending on services was resilient to economic downturns. However, spending on services declined in the second quarter of 2020, marking the first decline on record since 1948. Spending on services continued to decline for another year, primarily because of the restrictions caused by the pandemic. As shown in figure 10, year-over-year spending on services increased an average 3.1 percent in the third quarter of 2023. Spending on both durable and nondurable goods increased significantly throughout the COVID-19 pandemic. However, this growth has substantially weakened since the second quarter of 2022. In the third quarter of 2023, year-over-year spending decreased by 0.5 percent for nondurable goods and 1.4 percent for durable goods.

Spending on gasoline and energy goods represents about one-fifth of total spending on nondurable goods. As shown in figure 10, following eight consecutive quarters of contraction, real spending on energy goods and services rekindled growth in the third quarter of 2021, which extended through the

first quarter of 2023. The growth in spending on energy goods and services was partly due to the sharp increases in gas and oil prices. However, year-over-year spending on gasoline and energy goods saw a decrease of 0.9 percent in the second quarter of 2023, followed by a more substantial decline of 5.9 percent in the third quarter of 2023, primarily driven by a downturn in energy prices.

Tax Law Changes Affecting the Third Quarter of 2023

Anticipated and actual federal policy changes had a substantial effect on state tax revenues in the past few years. But changes in state tax laws also affect state tax revenue trends. Several states enacted tax changes for the fiscal year 2024.

We present analysis based on data and information retrieved from the National Association of State Budget Officers' Fall 2023 Fiscal Survey of the States. However, the analysis and forecasted effects are based on anticipated revenue gains or losses in response to states' legislated tax changes and do not include the effects of changing economic conditions. Actual revenue collections often deviate from estimated tax revenues, driven by the performance of underlying economic indicators, and these estimates may not fully account for inflation.¹²

During the third quarter of 2023, enacted tax changes were forecasted to decrease state revenues by \$2.3 billion compared with the same period in 2022 (this reflects both tax decreases and increases). ¹³ Overall, tax changes were expected to decrease personal income taxes by \$1.8 billion, corporate income taxes by \$80 million, and sales taxes by \$273 million. Other changes to taxes and fees were forecasted to decrease revenues by approximately \$105 million (NASBO 2023). Below, we discuss some of the major enacted tax changes for fiscal year 2024.

The cumulative effect of all tax changes enacted is projected to result in a net decrease of \$13.3 billion in state revenues for fiscal year 2024, with \$5.4 billion of this decrease stemming from one-time measures. In comparison, legislated tax actions in fiscal year 2023 were estimated to decrease state revenues by only \$16.2 billion. Minnesota, Ohio, and Virginia enacted the most substantial tax cuts in terms of total revenue, with estimated net losses of \$1.3 billion, \$1.4 billion, and \$2.0 billion, respectively. However, some smaller states (e.g., lowa and Tennessee) enacted tax cuts that were larger as a share of their revenue collections. Not only do these tax cuts reflect differences in anticipated revenue, but they can also have disparate impacts on different individuals within a state, based on the details of the changes.

For fiscal year 2024, 29 states enacted personal income tax cuts and two states enacted increases. The net impact of these legislated tax changes was an estimated decrease of personal income tax revenues by \$10.9 billion. Virginia is projected to see the most considerable revenue decrease because of tax measures. Governor Youngkin used the revenue surplus for tax relief, which included a \$1 billion

tax refund through the pass-through entity tax and a \$0.9 billion refund to all taxpayers who filed a Virginia income tax return for the 2022 tax year. ¹⁴ It is important to note, however, that both these measures are one-time actions.

Several other states also enacted various laws that were expected to significantly reduce personal tax revenue collections in the fiscal year 2024. Officials in Minnesota put into effect various personal income tax measures such as issuing one-time rebates and expanding child tax credits, among others. The net impact of these measures is forecasted to lead to a decrease in personal income tax revenues by approximately \$1.7 billion in fiscal year 2024. Notably, the distribution of one-time rebates is expected to be the primary contributor to this reduction, accounting for approximately \$1.1 billion of the decrease. ¹⁵

Officials in Ohio enacted income tax rate cuts and streamlined the income tax brackets, consolidating them from four to three for the 2023 tax year, and further from three to two for the 2024 tax year. These changes are projected to decrease personal income tax revenues by approximately \$1.1 billion in fiscal year 2024. ¹⁶

Kentucky Governor Beshear enacted legislation that retroactively reduced the state's personal income tax rate from 5.0 percent to 4.5 percent starting from January 1, 2023, and further lowered it to 4.0 percent effective January 1, 2024. As a result of these income tax rate cuts, it is estimated that the state will experience a net loss of approximately \$1.0 billion in revenue in fiscal year 2024. ¹⁷

Officials in Michigan enacted several income tax measures, including reduction of state personal income tax rate from 4.25 percent to 4.05 percent for 2023, rolling back the retirement tax, and expanding the Working Families Tax Credit. These tax measures were estimated to decrease Michigan's personal income tax collections by \$0.8 billion in fiscal year 2024.

West Virginia Governor Justice signed into law a bill that lowered personal income tax rates by 21.25 percent across all brackets, which is estimated to decrease personal income tax collections by \$0.8 billion in fiscal year 2024.¹⁹

A few other states also modified their personal income tax structures, which can have varying impacts on different income and racial and ethnic groups (Auxier 2022). Cutting income tax rates often largely benefits the highest-income taxpayers, while tax cuts that include expanded refundable credits (like the earned income tax credit or child tax credit) benefit lower-income households and taxpayers with children (Auxier and Weiner 2023).

Nineteen states enacted corporate income tax decreases and two states enacted increases. Legislated tax changes were estimated to decrease aggregate corporate income tax revenues by \$0.5 billion in fiscal year 2024. The largest corporate income tax revenue reduction was estimated to be in New Jersey. Governor Murphy previously signed a law imposing a 2.5 percent surtax on corporations with annual net income over \$1 million, effective through the tax year 2023. The surtax lapsed effective January 1, 2024, and is estimated to reduce New Jersey's corporate income tax revenues by \$0.3 billion in fiscal year 2024.²⁰ Officials in Ohio restructured the commercial activity tax; they eliminated the annual minimum tax and increased the exclusion amount from \$1 million to \$3 million effective January 1, 2024. The net impact of these changes pertaining to commercial activity tax is an estimated decrease of \$0.2 billion in Ohio's corporate income tax revenues for fiscal year 2024.²¹ Minnesota Governor Walz reformed the state's tax laws to align its treatment of global intangible low-taxed income (GILTI) with federal standards, effective January 1, 2023. This law represents a significant shift in Minnesota's approach to taxing income derived from foreign intangible assets, as it now classifies global intangible low-taxed income as dividend income for state tax purposes. This measure is estimated to increase Minnesota's corporate income tax revenues by \$0.3 billion in fiscal year 2024.²²

Thirteen states enacted sales tax decreases and three states enacted increases. The net impact of these legislated tax changes was an estimated decrease in sales tax revenues of \$1.5 billion in fiscal year 2024. The most significant legislative changes pertaining to sales tax revenues were in Florida, where sales tax revenues were estimated to decrease by \$0.9 billion in fiscal year 2024. In Florida, Governor DeSantis authorized a substantial tax relief package, which included numerous sales tax holidays, toll relief package, and tax incentives and sales tax refunds targeted for incentivizing new housing development.²³ Officials in Tennessee approved a one-time sales tax holiday on groceries for a three-month period. This measure is estimated to decrease the Tennessee's sales tax revenue by \$0.3 billion in fiscal year 2024.²⁴

Nineteen states enacted changes for some other type of tax, with an estimated overall decrease of \$0.5 billion in fiscal year 2023. These changes were estimated to decrease state tax revenues in 15 states and increase revenues in 4 states. The most significant legislated changes were in Massachusetts, New Mexico, and Nevada, where tax measures were estimated to decrease other tax collections by \$128 million, \$148 million, and \$138 million, respectively.

Conclusion

State tax revenues have become increasingly volatile in recent years. Early in the COVID-19 pandemic, states were forecasting steep revenue shortfalls for fiscal years 2021 and 2022 (Dadayan 2020a). And state revenues did decline early in the pandemic. However, these declines were in some cases the result of temporary factors and also were mitigated by substantial federal relief, leading to a surge in revenue growth in fiscal year 2021 and 2022, surpassing revenue forecasts in most states.

Although state revenue collections saw strong growth across various sources in fiscal year 2022, this upward trend notably declined in fiscal year 2023 and continued to weaken into the first half of fiscal year 2024. This is because the double-digit state revenue growth in fiscal year 2022 was driven by volatile sources and linked to temporary factors, including a federal spending related to the pandemic, an exceptionally strong stock market, a record number of initial public offerings, elevated inflation, and increased spending on taxable goods (Dadayan 2022a).

States initially projected sustained revenue growth for fiscal year 2023, but many later revised forecasts downward (Dadayan 2023a). Actual revenue collections significantly deteriorated during fiscal year 2023. The weakness in state tax revenues was predominantly driven by steep declines in personal income tax revenue collections, which were, in turn, influenced by the weak stock market and widespread income tax rate cuts. Several states have enacted tax cuts and other tax measures, which were expected to lower state tax revenues in the fiscal years 2023 and 2024. These tax actions were expected to result in a record nominal reduction of \$16.2 billion in 2023. For the fiscal year 2024, a further decrease of \$13.3 billion is projected. A significant portion of the 2024 reduction, \$5.4 billion or 40 percent, is attributed to one-time initiatives like rebates and tax holidays, highlighting the varying nature of state fiscal policies.

State revenues are also influenced by a combination of ongoing factors, including ongoing geopolitical crises, inflation, stock market and oil price volatility, federal monetary policy, banking instability, shifts in consumer spending patterns, and natural disasters, among others. As such, states forecasted substantial weakness in revenue collections for fiscal year 2024 (Dadayan 2023b).

States' fiscal path forward remains highly uncertain, particularly for states that enacted permanent tax rate cuts. Large rainy-day funds could help ease the transition to slower revenue growth. However, if the economy falters and if revenue collections continue to deteriorate, states will be forced to grapple with the need for more revenue or spending cuts in the coming years.

Appendix: Additional Tables

TABLE A1

Quarterly State Government Tax Revenue by Major Tax

	Nominal YOY Percentage Change				Inflation	Real YOY Percentage Change			ge		
Year/quarter	PIT	CIT	Sales	MFT	Total	rate	PIT	CIT	Sales	MFT	Total
Average growth, Calendar YTD 2023	(16.3)	(12.2)	3.2	6.8	(7.0)	3.2	(19.5)	(15.5)	(0.8)	2.7	(10.5)
2023 Q3	(2.9)	(0.3)	1.5	10.6	(1.2)	4.3	(6.0)	(3.4)	(1.7)	7.2	(4.3)
2023 Q2	(27.7)	(10.8)	1.9	8.8	(12.9)	0.0	(30.1)	(13.8)	(1.5)	5.2	(15.8)
2023 Q1	(18.4)	(25.5)	6.1	0.9	(6.8)	5.3	(22.5)	(29.2)	0.8	(4.1)	(11.4)
2022 Q4	(10.5)	11.2	6.5	(3.1)	(0.3)	6.4	(15.9)	4.5	0.1	(8.9)	(6.3)
2022 Q3	2.6	10.4	11.1	(3.3)	7.1	7.2	(4.3)	2.9	3.6	(9.8)	(0.1)
2022 Q2	15.3	35.9	9.1	(1.3)	15.2	7.7	7.1	26.2	1.3	(8.3)	7.0
2022 Q1	24.2	123.3	18.0	10.0	24.3	6.9	16.2	108.9	10.4	2.9	16.3
2021 Q4	28.4	61.1	18.6	8.1	24.2	6.1	21.0	51.8	11.7	1.8	17.0
2021 Q3	(16.6)	(3.0)	12.4	7.7	(0.5)	5.1	(20.7)	(7.7)	7.0	2.5	(5.3)
2021 Q2	75.5	163.0	40.2	27.6	59.2	4.5	68.0	151.8	34.2	22.1	52.4
2021 Q1	18.0	31.2	3.0	(7.3)	9.4	2.6	15.0	27.9	0.4	(9.6)	6.7
2020 Q4	8.9	24.3	3.4	(7.6)	6.1	1.7	7.1	22.3	1.7	(9.2)	4.3
2020 Q3	43.9	61.8	2.8	(4.2)	19.3	1.3	42.0	59.7	1.5	(5.4)	17.7
2020 Q2	(32.9)	(44.3)	(13.4)	(17.9)	(24.9)	0.8	(33.4)	(44.7)	(14.0)	(18.5)	(25.5)
2020 Q1	5.0	(8.0)	3.9	5.2	4.0	1.6	3.3	(2.3)	2.3	3.5	2.4
2019 Q4	6.2	18.7	5.6	8.3	5.6	1.5	4.6	17.0	4.0	6.6	4.0
2019 Q3	4.3	12.7	7.1	6.0	5.6	1.6	2.7	10.9	5.4	4.4	3.9
2019 Q2	18.8	20.9	2.3	3.2	10.4	1.7	16.9	18.9	0.6	1.5	8.6
2019 Q1	(2.4)	40.8	5.5	1.8	2.6	1.9	(4.2)	38.1	3.5	(0.1)	0.7
2018 Q4	(9.2)	12.9	4.4	6.0	(0.1)	2.2	(11.2)	10.5	2.1	3.7	(2.3)
2018 Q3	7.9	26.7	6.2	8.8	8.3	2.4	5.3	23.7	3.7	6.3	5.8
2018 Q2	10.6	17.3	5.3	8.9	8.9	2.5	7.9	14.4	2.7	6.2	6.3
2018 Q1	15.3	(6.7)	5.0	10.9	8.9	2.1	13.0	(8.5)	2.9	8.7	6.7
2017 Q4	14.9	10.4	4.5	9.7	9.1	1.9	12.7	8.3	2.5	7.6	7.1
2017 Q3	4.6	6.5	3.1	2.0	3.9	1.8	2.7	4.6	1.3	0.1	2.1
2017 Q2	(0.0)	11.7	3.2	5.2	2.3	1.6	(1.6)	10.0	1.6	3.6	0.7
2017 Q1	8.9	(28.0)	2.3	0.9	3.3	2.0	6.7	(29.4)	0.4	(1.0)	1.3
2016 Q4	0.3	(3.3)	1.7	1.2	1.2	1.4	(1.1)	(4.6)	0.3	(0.2)	(0.2)
2016 Q3	2.4	(9.1)	2.7	1.4	1.3	0.9	1.6	(9.8)	1.8	0.5	0.4
2016 Q2	(2.8)	(9.3)	1.2	0.3	(1.6)	0.8	(3.6)	(10.0)	0.3	(0.5)	(2.4)
2016 Q1	1.7	(6.0)	1.9	2.9	1.4	0.8	0.9	(6.7)	1.1	2.1	0.7
2015 Q4	5.1	(9.7)	2.7	3.5	2.3	0.8	4.3	(10.3)	1.9	2.7	1.6
2015 Q3	6.5	0.4	3.5	5.0	4.1	0.8	5.6	(0.4)	2.7	4.1	3.3
2015 Q2	14.0	5.6	3.6	2.5	7.0	1.0 0.9	12.9 5.9	4.5	2.6	1.5	6.0 4.5
2015 Q1	6.9 8.4	3.5 10.0	5.8 6.5	4.3 2.4	5.5 5.7	1.4	6.9	2.5 8.5	4.8 5.1	3.3 1.0	4.5 4.2
2014 Q4 2014 Q3	6.4 4.4	7.3	6.6	0.6	4.3	1.4	2.5	5.3	4.6	(1.2)	4.2 2.4
•	(6.7)	(0.3)	4.6	4.0	(1.0)	2.0	(8.5)	(2.2)	2.6	2.0	(2.9)
2014 Q2 2014 Q1	(1.3)	7.9	3.0	2.8	0.5	1.7	(2.9)	6.0	2.6 1.2	1.1	(2.9)
2014 Q1 2013 Q4	1.1	7.9 3.7	5.1	2.6 3.6	3.1	1.7	(0.6)	2.0	3.3	1.1	1.3
2013 Q4 2013 Q3	4.9	2.0	5.5	2.8	5.3	1.7	3.2	0.3	3.8	1.0	3.6
2013 Q3 2013 Q2	19.2	2.0 8.6	3.3 4.6	2.0	10.0	1.7	3.2 17.2	6.8	3.6 2.8	0.3	3.6 8.1
2013 Q2 2013 Q1	18.2	9.6	3.9	(1.7)	8.9	1.7	16.0	7.6	2.0	(3.4)	6.9

Source: Bureau of Economic Analysis (GDP) and US Census Bureau (tax revenue), analysis by the author.

Notes: PIT = personal income tax; CIT = corporate income tax; MFT = motor fuel tax; YOY = year-over-year, YTD = year to date.

TABLE A2

Quarterly State Government Tax Revenue, by State

Nominal percentage change, 2023 Q3 versus 2022 Q3

State/region	PIT	CIT	Sales	MFT	Total
US (median)	(0.4)	(2.6)	1.6	2.6	(0.2)
US (average)	(2.9)	(0.3)	1.5	10.6	(1.2)
New England	3.1	(6.8)	(0.3)	33.9	(0.2)
Connecticut	1.3	(12.8)	(2.3)	330.4	(2.5)
Maine	2.5	(14.2)	3.9	(8.0)	(2.6)
Massachusetts	4.4	(7.3)	(1.4)	3.6	1.2
New Hampshire	20.5	10.3	NA	101.0	18.4
Rhode Island	1.2	14.2	3.1	7.2	(8.9)
Vermont	(9.1)	(21.8)	0.4	(1.2)	(4.7)
Mideast	(2.0)	1.4	2.9	13.0	1.1
Delaware	8.6	(2.1)	NA	1.5	(0.0)
Maryland	4.1	4.6	0.7	(0.9)	12.3
New Jersey	(7.2)	(14.6)	0.3	(2.8)	(4.9)
New York	(2.3)	12.5	5.7	54.0	0.6
Pennsylvania	(0.7)	2.2	1.3	4.9	1.0
Great Lakes	2.7	(6.3)	0.2	4.3	0.7
Illinois	6.7	(9.3)	0.3	13.2	2.2
Indiana	8.3	(13.3)	(0.7)	15.3	3.2
Michigan	(5.3)	10.6	(3.3)	(18.7)	(3.4)
Ohio	0.1	NA	4.3	4.4	2.0
Wisconsin	2.0	(6.8)	1.7	(0.3)	0.1
Plains	(16.3)	8.5	7.0	7.8	(5.2)
Iowa	(14.8)	(18.8)	13.5	(1.5)	(7.4)
Kansas	(4.3)	47.1	9.8	(2.3)	6.5
Minnesota	(25.5)	20.8	3.1	1.5	(9.5)
Missouri	(10.3)	(14.3)	12.0	26.3	(1.2)
Nebraska	0.9	2.7	1.8	19.9	2.4
North Dakota	(43.7)	(27.1)	3.3	2.9	(19.3)
South Dakota	NA	82.5	1.5	3.7	2.5
Southeast	2.4	3.6	1.2	21.2	2.2
Alabama	3.4	3.6	2.7	3.9	3.4
Arkansas	(11.3)	5.2	1.4	2.3	(2.6)
Florida	NA	8.0	(0.4)	7.8	(0.9)
Georgia	(3.5)	2.7	0.0	NM	6.0
Kentucky	10.0	(4.4)	5.5	14.0	5.6
Louisiana	(3.9)	4.5	(3.7)	(1.6)	(0.7)
Mississippi	(7.6)	(13.1)	2.0	0.2	(0.4)
North Carolina	3.3	9.2	2.6	6.5	2.6
South Carolina	(11.5)	(2.4)	3.0	3.5	(5.9)
Tennessee	NA	(7.6)	3.4	2.3	1.0
Virginia	18.8	18.7	1.3	6.4	14.9
West Virginia	(0.1)	22.4	5.0	3.6	(7.9)
Southwest	(13.9)	(1.3)	3.6	1.5	(4.5)
Arizona	(27.4)	11.4	1.6	2.3	(6.1)
New Mexico	1.1	(32.5)	4.5	2.3	(3.1)
Oklahoma	(0.4)	(9.1)	1.6	(0.1)	(9.5)
Texas	NA	NA	4.1	1.5	(3.5)
Rocky Mountain	(2.9)	26.1	0.8	4.1	(0.1)
Colorado	(5.4)	66.3	1.4	9.0	1.8
Idaho	9.2	(22.6)	(0.2)	(9.4)	(0.0)
Montana	(5.3)	(11.4)	NA	4.1	(9.6)
Utah	(1.2)	(2.8)	(0.6)	8.4	(0.3)
Wyoming	NA	NA	6.5	1.2	(0.8)
Far West	(6.5)	(5.7)	(1.1)	4.7	(5.1)

State/region	PIT	CIT	Sales	MFT	Total
Alaska	NA	(50.4)	NA	(13.8)	(62.2)
California	(8.1)	(5.5)	(2.7)	6.8	(5.3)
Hawaii	22.4	(18.1)	(0.2)	(35.0)	(0.0)
Nevada	NA	NA	5.1	6.3	2.6
Oregon	0.5	9.8	NA	2.3	0.9
Washington	NA	NA	1.2	(2.4)	(2.0)

Source: US Census Bureau (tax revenue), analysis by the author.

Notes: PIT = personal income tax; CIT = corporate income tax; MFT = motor fuel tax; NA = not applicable; NM = not meaningful.

TABLE A3

State Government Tax Revenue Trends in Calendar Year to Date 2023

Nominal percentage change January to September 2023 versus January to September 2022

US (average)	State/region	PIT	CIT	Sales	MFT	Total
New England						
Connecticut (14.7) (12.0) (0.3) 61.4 (8.8) Maine (9.4) 4.9 2.6 0.0 (4.2) Massachusetts (10.9) (1.0) 3.8 0.1 (5.3) New Hampshire 3.2 6.2 NA 101.8 6.8 Rhode Island (10.4) (0.8) 1.4 3.0 (7.7) Vermont (16.5) 9.8 3.9 (0.6) (3.8) Mideast (15.9) 6.4 2.7 8.5 (6.4) Delaware 9.8 4.6 NA 2.2 3.7 Maryland (4.4) (0.4) (0.0) (0.7) 1.3 New Jersey (15.1) (9.2) 2.2 1.5 (4.3) New York (20.3) 17.6 6.3 20.0 (11.7) Pennsylvania (8.0) 10.9 (0.1) 8.2 0.9 Great Lakes (4.7) (8.2) 1.7 3.2 (1.6) <td>US (average)</td> <td>(18.5)</td> <td>(12.6)</td> <td>3.1</td> <td>6.9</td> <td>(7.7)</td>	US (average)	(18.5)	(12.6)	3.1	6.9	(7.7)
Maine (9,4) 4,9 2,6 0,0 (4,2) Massachusetts (10,9) (1,0) 3,8 0.1 (5,3) New Hampshire 3.2 6,2 NA 101,8 6.8 Rhode Island (10,4) (0,8) 1,4 3,0 (7,7) Vermont (16,5) 9,8 3,9 (0,6) (3,8) Mideast (15,9) 6,4 2,7 8,5 (6,4) Delaware 9,8 4,6 NA 2,2 3,7 Maryland (4,4) (0,4) (0,0) (0,7) 1,3 New Pork (20,3) 17,6 6,3 20,0 (11,7) Pennsylvania (8,0) 10,9 (0,1) 8,2 (0,9) Great Lakes (4,7) (8,2) 1,7 3,2 (1,6) Illinois (7,8) (9,5) 1,6 7,8 (4,0) Indiana (3,2) (15,8 2,3 6,2 (1,2)	New England		(3.7)	2.2		(5.8)
Massachusetts (10.9) (1.0) 3.8 0.1 (5.3) New Hampshire 3.2 6.2 NA 101.8 6.8 Rhode Island (10.4) (0.8) 1.4 3.0 (7.7) Vermont (16.5) 9.8 3.9 (0.6) (3.8) Mideast (15.9) 6.4 2.7 8.5 (6.4) Delaware 9.8 4.6 NA 2.2 3.7 Maryland (4.4) (0.4) (0.0) (0.7) 1.3 New York (20.3) 17.6 6.3 20.0 (11.7) Pennsylvania (8.0) 10.9 (0.1) 8.2 (0.9) Great Lakes (4.7) (8.2) 1.7 3.2 (1.6) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Illinois (3.2) NA 3.6 2.4 1.4 <tr< td=""><td>Connecticut</td><td></td><td></td><td></td><td>61.4</td><td></td></tr<>	Connecticut				61.4	
New Hampshire 3.2 6.2 NA 101.8 6.8	Maine					
Rhode Island			(1.0)			
Vermont (16.5) 9.8 3.9 (0.6) (3.8) Mideast (15.9) 6.4 2.7 8.5 (6.4) Delaware 9.8 4.6 NA 2.2 3.7 Maryland (4.4) (0.4) (0.0) (0.7) 1.3 New Jersey (15.1) (9.2) 2.2 1.5 (4.3) New York (20.3) 17.6 6.3 20.0 (11.7) Pennsylvania (8.0) 10.9 (0.1) 8.2 (0.9) Great Lakes (4.7) (8.2) 1.7 3.2 (1.6) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Michigan (10.6) 5.4 (20) (3.9) (3.8 Ohio (3.2) NA 3.6 2.4 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4 4.5 <	New Hampshire	3.2				
Mideast (15.9) 6.4 2.7 8.5 (6.4) Delaware 9.8 4.6 NA 2.2 3.7 Maryland (4.4) (0.4) (0.0) (0.7) 1.3 New Jersey (15.1) (9.2) 2.2 1.5 (4.3) New York (20.3) 17.6 6.3 20.0 (11.7) Pennsylvania (8.0) 10.9 (0.1) 8.2 (0.9) Great Lakes (4.7) (8.2) 1.7 3.2 (1.6) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Indiana (3.2) (15.8) 2.3 6.2 (12.0) Michigan (10.6) 5.4 (2.0) (3.9) (3.8 Ohio (3.2) NA 3.6 2.4 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4 4.5 Plains (14.5) 3.0 6.2 3.5 (4.7) <t< td=""><td>Rhode Island</td><td></td><td>(8.0)</td><td>1.4</td><td>3.0</td><td></td></t<>	Rhode Island		(8.0)	1.4	3.0	
Delaware Maryland 9.8 (4.4) 4.6 (0.4) NA 2.2 (0.7) 3.7 Maryland (4.4) (0.4) (0.0) (0.7) 1.3 New Jersey (15.1) (9.2) 2.2 (1.5) (4.3) New York (20.3) 17.6 6.3 20.0 (11.7) Pennsylvania (8.0) 10.9 (0.1) 8.2 (0.9) Great Lakes (4.7) (8.2) 1.7 3.2 (1.6) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Indiana (3.2) (15.8) 2.3 6.2 (1.2) Michigan (10.6) 5.4 (2.0) (3.9) (3.8) Ohio (3.2) NA 3.6 (2.4) 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4) 4.5 Plains (14.5) 3.0 6.2 3.5 (4.7) lowa (16.5) (1.5) (1.5) (4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 (4 (0.2) 3.1 <t< td=""><td></td><td></td><td>9.8</td><td></td><td></td><td>(3.8)</td></t<>			9.8			(3.8)
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New York (20.3) 17.6 6.3 20.0 (11.7) Pennsylvania (8.0) 10.9 (0.1) 8.2 (0.9) Great Lakes (4.7) (8.2) 1.7 3.2 (1.6) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Indiana (3.2) (15.8) 2.3 6.2 (1.2) Michigan (10.6) 5.4 (2.0) (3.9) (3.8) Ohio (3.2) NA 3.6 2.4 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4) 4.5 Plains (14.5) 3.0 6.2 3.5 (4.7) Iowa (16.5) (1.5) 6.4 (3.9) (6.1) Kansas (13.5) 92.4 4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota (17.0) 24.5 11.0 3.0 (8.2) Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA (31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Maryland	(4.4)				
Pennsylvania (8.0) 10.9 (0.1) 8.2 (0.9) Great Lakes (4.7) (8.2) 1.7 3.2 (1.6) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Michigan (10.6) 5.4 (2.0) (3.9) (3.8) Ohio (3.2) NA 3.6 2.4 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4) 4.5 Plains (14.5) 3.0 6.2 3.5 (4.7) lowa (16.5) (1.5) 6.4 (3.9) (6.1) Kansas (13.5) 92.4 4.4 (0.2) 3.1 Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5)	New Jersey		(9.2)		1.5	
Great Lakes (4.7) (8.2) 1.7 3.2 (1.6) Illinois (7.8) (9.5) 1.6 7.8 (4.0) Indiana (3.2) (15.8) 2.3 6.2 (1.2) Michigan (10.6) 5.4 (2.0) (3.9) (3.8) Ohio (3.2) NA 3.6 2.4 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4) 4.5 Plains (14.5) 3.0 6.2 3.5 (4.7) lowa (16.5) (1.5) 6.4 (3.9) (6.1) Kansas (13.5) 92.4 4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota (17.0) 24.5 11.0 3.0 (8.2)	New York		17.6			
Illinois (7.8) (9.5) 1.6 7.8 (4.0) Indiana (3.2) (15.8) 2.3 6.2 (1.2) Michigan (10.6) 5.4 (2.0) (3.9) (3.8) Ohio (3.2) NA 3.6 2.4 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4) 4.5 Misconsin 10.4 (10.9) 3.9 (0.4) 4.5 Misconsin (14.5) 3.0 6.2 3.5 (4.7) Iowa (16.5) (1.5) 6.4 (3.9) (6.1) Kansas (13.5) 92.4 4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota (17.0) 24.5 11.0 3.0 (8.2) South Dakota NA (5.1) 4.6 (2.3) 3.4 Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia (4.85) 3.7.7 4.7 1.6 (1.11) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Arizona (48.5) 3.7.7 4.7 1.6 (1.11) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) (6.8) (9.5) Wyoming NA NA 9.8 0.2 22.9 (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9) (22.9)	Pennsylvania	(8.0)	10.9	(0.1)	8.2	(0.9)
Indiana	Great Lakes	(4.7)	(8.2)	1.7		(1.6)
Michigan Ohio (10.6) 5.4 (2.0) (3.9) (3.8) Ohio (3.2) NA 3.6 2.4 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4) 4.5 Plains (14.5) 3.0 6.2 3.5 (4.7) lowa (16.5) (1.5) 6.4 (3.9) (6.1) Kansas (13.5) 92.4 4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota (17.0) 24.5 11.0 3.0 (8.2) South Dakota NA (5.1) 4.6 (2.3) 3.4 South Dakota NA (5.1) 4.6 (2.3) 3.4 South Dakota NA (5.1) 4.6 (2.3) 3.4	Illinois				7.8	(4.0)
Ohio (3.2) NA 3.6 2.4 1.4 Wisconsin 10.4 (10.9) 3.9 (0.4) 4.5 Plains (14.5) 3.0 6.2 3.5 (4.7) lowa (16.5) (1.5) 6.4 (3.9) (6.7) Kansas (13.5) 92.4 4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota NA (5.1) 4.6 (2.3) 3.4 South Dakota NA (5.1) 4.6 (2.3) 3.4 <t< td=""><td>Indiana</td><td>(3.2)</td><td>(15.8)</td><td>2.3</td><td>6.2</td><td>(1.2)</td></t<>	Indiana	(3.2)	(15.8)	2.3	6.2	(1.2)
Wisconsin 10.4 (10.9) 3.9 (0.4) 4.5 Plains (14.5) 3.0 6.2 3.5 (4.7) Iowa (16.5) (1.5) 6.4 (3.9) (6.1) Kansas (13.5) 92.4 4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota NA (5.1) 4.6 (2.3) 3.4 South Dakota (9.8) 13.2 3.0 12.6 (0.4) <t< td=""><td></td><td>(10.6)</td><td>5.4</td><td>(2.0)</td><td>(3.9)</td><td>(3.8)</td></t<>		(10.6)	5.4	(2.0)	(3.9)	(3.8)
Plains (14.5) 3.0 6.2 3.5 (4.7) Iowa (16.5) (1.5) 6.4 (3.9) (6.1) Kansas (13.5) 92.4 4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota (17.0) 24.5 11.0 3.0 (8.2) South Bakota NA (5.1) 4.6 (2.3) 3.4 Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8	Ohio	(3.2)	NA	3.6	2.4	1.4
Iowa	Wisconsin	10.4	(10.9)	3.9	(0.4)	4.5
Kansas (13.5) 92.4 4.4 (0.2) 3.1 Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota NA (5.1) 4.6 (2.3) 3.4 South Dakota NA (5.1) 4.6 (2.3) 3.4 South Dakota NA (5.1) 4.6 (2.3) 3.4 South Dakota NA (5.1) 4.6 (2.3) 3.4 Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8	Plains	(14.5)	3.0	6.2	3.5	(4.7)
Minnesota (15.6) (17.6) 2.4 0.3 (8.7) Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota (17.0) 24.5 11.0 3.0 (8.2) South Dakota NA (5.1) 4.6 (2.3) 3.4 Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7)	Iowa	(16.5)	(1.5)	6.4	(3.9)	(6.1)
Missouri (12.6) 7.2 13.9 12.0 (1.7) Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota (17.0) 24.5 11.0 3.0 (8.2) South Dakota NA (5.1) 4.6 (2.3) 3.4 Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) <t< td=""><td>Kansas</td><td>(13.5)</td><td>92.4</td><td>4.4</td><td>(0.2)</td><td>3.1</td></t<>	Kansas	(13.5)	92.4	4.4	(0.2)	3.1
Nebraska (12.0) (7.9) 5.9 13.5 (3.5) North Dakota (17.0) 24.5 11.0 3.0 (8.2) South Dakota NA (5.1) 4.6 (2.3) 3.4 Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississisppi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) <td>Minnesota</td> <td></td> <td>(17.6)</td> <td></td> <td>0.3</td> <td>(8.7)</td>	Minnesota		(17.6)		0.3	(8.7)
North Dakota (17.0) 24.5 11.0 3.0 (8.2) South Dakota NA (5.1) 4.6 (2.3) 3.4 Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 <	Missouri		7.2	13.9	12.0	(1.7)
South Dakota NA (5.1) 4.6 (2.3) 3.4 Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2)	Nebraska	(12.0)	(7.9)	5.9	13.5	(3.5)
Southeast (9.8) 13.2 3.0 12.6 (0.4) Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2)	North Dakota	(17.0)	24.5	11.0	3.0	(8.2)
Alabama (8.3) (2.0) 3.8 1.4 (2.4) Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1)	South Dakota	NA	(5.1)	4.6	(2.3)	3.4
Arkansas (31.3) 28.9 5.6 0.8 (4.8) Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1)	Southeast	(9.8)	13.2	3.0	12.6	(0.4)
Florida NA 31.1 2.7 7.1 1.9 Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7	Alabama	(8.3)	(2.0)	3.8	1.4	(2.4)
Georgia (14.4) 22.5 3.5 139.1 (1.8) Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5)	Arkansas	(31.3)	28.9	5.6	0.8	(4.8)
Kentucky (5.9) (0.0) 8.3 7.7 1.1 Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7	Florida	NA	31.1		7.1	1.9
Louisiana 3.2 18.6 (1.4) 16.1 5.4 Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) <	Georgia	(14.4)	22.5	3.5		(1.8)
Mississippi (12.1) (0.1) 2.0 6.6 (1.7) North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6)	Kentucky	(5.9)	(0.0)	8.3	7.7	
North Carolina (5.2) (0.2) 2.6 7.7 (1.0) South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) <tr< td=""><td></td><td></td><td>18.6</td><td>(1.4)</td><td>16.1</td><td>5.4</td></tr<>			18.6	(1.4)	16.1	5.4
South Carolina (29.8) (1.2) 4.4 7.0 (11.8) Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2)	Mississippi	(12.1)	(0.1)	2.0	6.6	(1.7)
Tennessee NM (0.4) 4.7 1.0 3.0 Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wy						
Virginia (4.3) 20.9 (1.7) 2.0 (0.2) West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	South Carolina	(29.8)	(1.2)	4.4	7.0	(11.8)
West Virginia 0.9 19.0 5.5 5.4 (0.1) Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Tennessee	NM	(0.4)	4.7	1.0	3.0
Southwest (25.2) 9.7 7.1 1.6 (0.5) Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Virginia	(4.3)	20.9	(1.7)	2.0	(0.2)
Arizona (48.5) 37.7 4.7 1.6 (11.1) New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	West Virginia		19.0	5.5	5.4	(0.1)
New Mexico 4.9 (17.9) 8.5 3.4 2.7 Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Southwest	(25.2)	9.7	7.1	1.6	(0.5)
Oklahoma (0.2) (11.8) 3.6 0.1 (4.5) Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Arizona	(48.5)	37.7	4.7	1.6	(11.1)
Texas NA NA 7.8 1.7 2.7 Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	New Mexico	4.9	(17.9)	8.5	3.4	2.7
Rocky Mountain (19.1) 21.5 2.0 3.4 (6.4) Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Oklahoma	(0.2)	(11.8)	3.6	0.1	(4.5)
Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Texas	NA	NA	7.8	1.7	2.7
Colorado (21.9) 68.0 3.0 6.2 (7.6) Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Rocky Mountain	(19.1)	21.5	2.0	3.4	(6.4)
Idaho (15.8) (18.0) 0.6 (4.1) (5.8) Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9			68.0	3.0		
Montana (14.6) (1.1) NA 0.9 (7.2) Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Idaho					
Utah (17.2) (6.2) (0.0) 6.8 (9.5) Wyoming NA NA 9.8 0.2 22.9	Montana	(14.6)	(1.1)	NA		
Wyoming NA NA 9.8 0.2 22.9					6.8	
	Wyoming					
	Far West	(33.9)	(42.8)	0.4	3.7	(21.3)

State/region	PIT	CIT	Sales	MFT	Total
Alaska	NA	(47.1)	NA	(3.9)	(46.3)
California	(37.7)	(44.6)	(1.0)	4.9	(26.9)
Hawaii	(8.7)	(5.9)	4.9	(11.0)	(4.2)
Nevada	NA	NA	3.1	10.3	(8.0)
Oregon	2.7	3.9	NA	1.7	3.9
Washington	NA	NA	2.0	(2.0)	0.1

 $\textbf{Source:} \ \mathsf{US} \ \mathsf{Census} \ \mathsf{Bureau} \ (\mathsf{tax} \ \mathsf{revenue}), \mathsf{analysis} \ \mathsf{by} \ \mathsf{the} \ \mathsf{author}.$

Notes: PIT = personal income tax; CIT = corporate income tax; MFT = motor fuel tax; NA = not applicable.

TABLE A4
State Personal Income Tax Withholding
Year-over-year nominal percentage change

State/region		Tax Yea	r 2022	Tax Year 2023			
,	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3
US (median)	12.0	9.8	7.2	6.3	2.4	4.5	3.2
US (average)	12.9	7.5	3.1	(0.6)	0.3	3.8	3.3
New England	11.1	6.3	2.5	5.6	4.1	7.1	7.3
Connecticut	16.3	5.3	(5.8)	7.0	6.4	7.0	10.4
Maine	18.1	13.3	5.4	8.3	15.1	3.8	7.2
Massachusetts	7.2	5.6	5.0	4.7	1.5	8.0	7.0
Rhode Island	11.4	5.8	8.0	2.1	2.4	3.6	1.9
Vermont	22.5	12.3	13.0	11.3	6.5	5.3	(2.4)
Mideast	17.8	7.7	3.5	(1.3)	(1.6)	5.3	3.5
Delaware	(14.9)	8.2	9.0	9.1	4.2	8.4	8.3
Maryland	11.8	3.3	4.3	5.1	2.0	9.9	4.8
New Jersey	10.9	11.3	8.3	5.3	2.4	2.9	6.3
New York	24.1	8.1	1.3	(7.0)	(4.9)	4.2	1.7
Pennsylvania	10.6	9.8	5.4	5.6	5.0	4.6	5.0
Great Lakes	15.8	9.0	4.0	4.5	0.1	5.1	9.6
Illinois	30.0	18.7	3.6	8.8	(6.4)	1.5	16.8
Indiana	13.0	15.9	7.0	8.9	4.9	8.7	16.8
Michigan	9.3	5.6	8.1	3.3	3.5	5.4	(0.1)
Ohio	11.1	5.8	6.4	9.1	11.4	6.2	3.2
Wisconsin	0.3	(7.8)	(8.1)	(11.4)	(3.2)	7.8	4.9
Plains	13.2	5.9	6.6	7.7	0.4	2.7	2.2
Iowa	9.9	13.3	5.8	9.5	(5.7)	(13.0)	(6.2)
Kansas	14.6	8.3	7.3	9.1	3.9	9.3	9.0
Minnesota	13.4	(1.9)	5.9	6.2	3.3	6.0	3.3
Missouri	13.0	10.8	6.5	6.4	(2.5)	0.8	0.2
Nebraska	13.9	9.8	8.4	10.6	2.2	7.0	6.6
North Dakota	34.4	35.6	17.4	24.8	(7.1)	20.9	2.4
Southeast	10.1	8.3	6.9	1.9	2.3	1.2	0.6
Alabama	11.1	13.0	8.4	8.0	6.6	6.9	8.4
Arkansas	10.7	2.2	2.2	(3.8)	(8.3)	(1.3)	(8.0)
Georgia	10.6	10.0	10.1	3.6	7.1	4.7	4.8
Kentucky	13.3	14.9	8.0	7.5	(1.0)	(6.7)	(8.0)
Louisiana	8.0	(2.0)	(5.0)	(15.0)	2.1	4.5	(2.3)
Mississippi	11.2	11.8	9.8	7.3	1.2	(2.2)	(2.8)
North Carolina	8.4	3.8	1.0	(0.7)	0.7	2.4	2.8
South Carolina	12.0	13.1	10.4	4.7	(3.0)	(8.9)	(8.3)
Virginia	9.4	8.0	9.6	1.8	2.6	2.8	0.4
West Virginia	10.8	9.7	10.9	8.9	9.5	(0.1)	(13.4)
Southwest	12.5	11.3	10.9	5.0	(1.0)	(5.1)	(5.9)
Arizona	11.5	14.6	8.1	5.0	(9.3)	(16.5)	(15.7)
New Mexico	16.8	10.6	29.3	0.8	11.0	4.4	2.3
Oklahoma	12.1	6.6	7.2	7.3	6.6	9.2	5.2
Rocky Mountain	15.8	11.7	8.0	6.5	2.2	3.9	4.4
Colorado	16.4	10.7	7.3	6.9	2.9	3.6	3.2
Idaho	13.3	14.0	6.0	3.8	(0.6)	2.4	13.3
Montana	15.8	13.1	12.1	9.1	5.7	5.3	5.0
Utah	15.7	12.3	9.0	6.3	1.0	4.5	3.1
Far West	7.7	5.4	(2.8)	(9.1)	0.1	3.7	1.5
California	7.0	4.9	(3.9)	(10.8)	(0.3)	3.5	0.8
Hawaii	12.5	7.4	6.6	9.1	6.0	7.1	9.7
Oregon	12.5	8.9	4.9	4.5	2.6	4.1	4.5

Source: Individual state data, analysis by the author.

TABLE A5
State Personal Income Tax Estimated Payments or Declarations

Year-over-year nominal percentage change

	Tax year 2022		Tax year 2023			
State	September 2022, 3rd payment	April-Sep. 2022, first 3 payments	September 2023, 3rd payment	April-Sep. 2023, first 3 payments		
US (median)	7.8	13.4	(23.4)	(27.1)		
US (average)	(19.8)	(9.7)	(26.7)	(39.5)		
Alabama	2.4	(0.5)	(32.2)	(32.3)		
Arizona	0.0	(3.1)	(44.1)	(47.7)		
Arkansas	7.8	2.6	(49.3)	(51.6)		
California	(47.3)	(41.3)	(55.8)	(64.4)		
Colorado	(1.0)	47.5	(37.2)	(49.6)		
Connecticut	(0.5)	0.9	(25.2)	(27.9)		
Delaware	(1.8)	5.7	(6.2)	(9.9)		
Georgia	11.3	22.7	(36.9)	(33.3)		
Hawaii	0.2	19.3	(32.1)	(26.0)		
Illinois	(17.3)	(21.1)	(16.8)	(22.8)		
Indiana	(11.4)	19.1	(2.1)	(32.1)		
Iowa	22.9	16.4	(53.7)	(33.3)		
Kansas	7.8	10.1	(37.8)	(39.0)		
Kentucky	13.9	39.2	(35.8)	(36.3)		
Louisiana	85.6	53.3	(18.0)	(17.6)		
Maine	27.8	17.2	(11.3)	(13.5)		
Maryland	12.9	2.2	(11.3)	(5.9)		
Massachusetts	8.1	12.4	(6.0)	(14.5)		
Michigan	(25.9)	(27.1)	(22.6)	(24.0)		
Minnesota	(12.9)	2.3	(17.9)	(35.3)		
Mississippi	30.4	39.2	(24.2)	(33.6)		
Missouri	(1.7)	0.8	(39.3)	(40.2)		
Montana	23.9	62.3	(18.2)	(31.2)		
Nebraska	19.3	18.8	(29.4)	(26.4)		
New Jersey	3.8	(3.8)	(22.0)	(24.5)		
New York	(38.8)	(3.5)	(25.8)	(47.7)		
North Carolina	(10.0)	(3.8)	(40.8)	(41.2)		
North Dakota	51.1	116.7	(25.3)	(54.8)		
Ohio	13.2	10.4	(4.0)	2.0		
Oklahoma	37.7	63.1	(21.9)	(25.1)		
Oregon	27.6	33.4	(6.2)	(16.4)		
Pennsylvania	22.8	30.1	(21.0)	(20.4)		
Rhode Island	8.9	9.9	(22.2)	(26.3)		
South Carolina	1.9	13.5	(27.4)	(43.2)		
Vermont	17.2	19.0	(18.7)	(23.0)		
Virginia	5.0	13.3	34.9	(10.6)		
West Virginia	36.5	36.7	(40.9)	(25.8)		
Wisconsin	(1.3)	24.9	(6.0)	(21.7)		

Source: Individual state data, analysis by the author.

Notes: Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming have no broadbased personal income tax and are not shown in this table.

TABLE A6
State Personal Income Tax Final Payments

Year-over-year nominal percentage change

State	April-Sep. 2022 vs April-Sep. 2021	April-Sep. 2023 vs April-Sep. 2022
US (median)	45.9	(30.4)
US (average)	39.7	(35.9)
Alabama	31.7	(32.7)
Arizona	58.0	(55.8)
Arkansas	41.0	(56.1)
California	18.9	(52.1)
Colorado	46.3	(37.6)
Connecticut	61.8	(43.0)
Delaware	54.3	(28.6)
Georgia	141.1	(49.6)
Hawaii	19.6	(25.9)
Idaho	(0.0)	(32.4)
Illinois	35.8	(42.1)
Indiana	56.1	(38.4)
lowa	52.3	(18.3)
Kansas	40.7	(45.9)
Kentucky	37.4	(17.7)
Louisiana	53.9	(13.7)
Maine	56.3	(27.4)
Maryland	49.9	(24.3)
Massachusetts	41.9	(41.8)
Michigan	1.4	(33.9)
Minnesota	3.4	(26.4)
Missouri	98.7	(29.6)
Montana	74.6	(25.5)
Nebraska	46.6	(27.2)
New Jersey	44.6	(37.6)
New Mexico	(25.1)	(27.2)
New York	11.0	(35.3)
North Carolina	45.5	(12.5)
North Dakota	4.9	55.0
Ohio	39.6	(4.8)
Oklahoma	25.5	(13.6)
Pennsylvania	77.0	(39.8)
Rhode Island	150.4	(24.5)
South Carolina	46.7	(31.2)
Utah	55.1	(47.7)
Vermont	74.1	(33.9)
Virginia	55.1	(20.0)
West Virginia	28.7	37.3
Wisconsin	5.3	(14.0)

Source: Individual state data, analysis by the author.

Notes: Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming have no broadbased personal income tax and are not shown in this table.

TABLE A7
States with Pass-Through Entity Elective Tax and Effective Dates

State	Effective date
Alabama	Tax year 2021
Arizona	Tax year 2022
Arkansas	Tax year 2022
California	Tax year 2021
Colorado	Tax year 2022
Connecticut	Tax year 2018
Delaware	N/A
Georgia	Tax year 2022
Hawaii	Tax year 2023
Idaho	Tax year 2021
Illinois	Tax year 2022
Indiana	Tax year 2022
lowa	Tax year 2022
Kansas	Tax year 2022
Kentucky	Tax year 2022
Louisiana	Tax year 2019
Maine	N/A
Maryland	Tax year 2020
Massachusetts	Tax year 2021
Michigan	Tax year 2021
Minnesota	Tax year 2021
Mississippi	Tax year 2022
Missouri	Tax year 2023
Montana	Tax year 2023
Nebraska	Tax year 2018
New Jersey	Tax year 2020
New Mexico	Tax year 2022
New York	Tax year 2021
North Carolina	Tax year 2022
North Dakota	N/A
Ohio	Tax year 2022
Oklahoma	Tax year 2019
Oregon	Tax year 2022
Pennsylvania	N/A
Rhode Island	Tax year 2019
South Carolina	Tax year 2021
Utah	Tax year 2022
Vermont	N/A
Virginia	Tax year 2021
West Virginia	Tax year 2022
Wisconsin	Tax year 2019

Source: Individual state information, compiled by the author.

Notes: Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming have no broadbased personal income tax and are not shown in this table. NA = not applicable. State names are hyperlinked to their respective pass-through entity elective tax guidelines.

TABLE A8

Quarterly State Government Tax Revenue for Nonmajor Tax Revenue Sources

Year-over-year real percentage change; four-quarter moving averages

Voar/quarter	Property	Tobacco product	Alcoholic beverage	Motor vehicle & operators'	Other	Total nonmajor
Year/quarter	tax	sales tax	sales tax	license taxes	taxes	taxes
2023 Q3 collections						
(\$ millions)	\$6,170	\$4,204	\$2,037	\$8,757	\$43,150	\$64,318
Average growth,	Ψ0,170	ψ 4 ,20 4	\$2,037	Ψ0,737	Ψ 4 3,130	ФО4,310
	0.6	(11.8)	(2.1)	(2.7)	(0.2)	(1.3)
Calendar YTD 2023	1.1	(40.4)	(1.6)	(4.7)	/F 4\	(4.4)
2023 Q3	1.1	(10.4)		(1.7)	(5.1)	(4.4)
2023 Q2	(0.3) 1.0	(11.8) (13.2)	(1.4)	(1.8)	(1.1) 5.7	(1.8)
2023 Q1		(13.2)	(3.2)	(4.6)		2.4
2022 Q4	1.4		(1.3)	(5.8)	8.3	4.0
2022 Q3	1.3	(12.2)	(0.7)	(6.8)	13.8	7.4
2022 Q2	0.7	(9.6)	2.5	(7.2)	17.3	9.7
2022 Q1	2.4	(5.2)	10.4	0.5	22.3	14.6
2021 Q4	2.7	(4.6)	8.7	1.3	19.5	12.9
2021 Q3	4.6	(1.3)	7.8	5.2	14.6	10.7
2021 Q2	5.8	0.8	5.3	7.7	7.6	6.8
2021 Q1	2.1	(0.7)	(5.5)	(3.1)	(6.0)	(4.4)
2020 Q4	2.8	0.7	(5.1)	(2.5)	(6.1)	(4.3)
2020 Q3	2.6	(1.1)	(3.3)	(3.4)	(7.0)	(5.1)
2020 Q2	0.3	(2.5)	(2.3)	(3.0)	(4.8)	(3.8)
2020 Q1	1.3	(3.1)	2.8	2.0	1.4	1.1
2019 Q4	0.4	(4.0)	2.9	1.3	1.5	1.0
2019 Q3	(0.2)	(6.1)	0.3	1.4	3.5	1.9
2019 Q2	5.4	(7.6)	(1.2)	0.9	4.7	2.8
2019 Q1	6.5	(5.4)	(0.5)	4.4	5.3	4.0
2018 Q4	9.1	(5.2)	(1.4)	7.2	5.4	4.7
2018 Q3	8.2	0.9	0.1	4.5	5.3	4.8
2018 Q2	3.7	5.3	1.4	4.8	3.7	3.9
2018 Q1	1.1	4.8	1.2	1.2	2.7	2.5
2017 Q4	(0.5)	6.2	3.0	(0.2)	2.0	1.9
2017 Q3	(1.2)	3.6	3.0	3.8	0.5	1.2
2017 Q2	0.5	1.9	2.3	1.6	(0.3)	0.3
2017 Q1	3.1	1.3	1.1	2.4	(1.6)	(0.3)
2016 Q4	2.4	1.5	0.5	2.8	(1.6)	(0.3)
2016 Q3	5.0	1.3	0.8	1.1	(2.4)	(0.9)
2016 Q2	4.2	0.7	1.7	2.6	(1.7)	(0.3)
2016 Q1	5.1	1.8	2.7	2.3	(1.3)	0.1
2015 Q4	8.8	0.2	1.6	2.9	(0.9)	0.5
2015 Q3	6.2	(0.7)	1.4	1.7	(0.3)	0.5
2015 Q2	5.3	(2.0)	1.7	1.3	(0.6)	0.1
2015 Q1	4.4	(3.9)	(0.1)	1.3	(0.3)	(0.0)
2014 Q4	0.9	(4.6)	1.6	(0.6)	(1.8)	(1.6)
2014 Q3	3.3	(3.6)	1.4	0.7	(1.6)	(1.0)
2014 Q2	5.3	0.6	0.0	1.2	(0.4)	0.3
2014 Q1	5.2	1.9	1.4	0.9	0.5	1.0
2013 Q4	4.9	3.7	(0.7)	0.4	3.3	2.9
2013 Q3	3.3	3.6	(2.4)	(0.5)	3.7	2.9
2013 Q2	(0.3)	(1.0)	(1.8)	(0.9)	2.7	1.5

 $\textbf{Source:} \ \mathsf{US} \ \mathsf{Census} \ \mathsf{Bureau} \ (\mathsf{tax} \ \mathsf{revenue}), \mathsf{analysis} \ \mathsf{by} \ \mathsf{the} \ \mathsf{author}.$

(3.2)

(1.5)

(0.1)

Notes: Q= quarter; YTD = year to date.

2013 Q1

0.3

2.5

1.3

TABLE A9
Preliminary State Government Tax Revenues in the Fourth Quarter of 2023, by State
Nominal percentage change, 2023 Q4 versus 2022 Q4

State/region	PIT	CIT	Sales	Total
US (median)	(0.6)	2.3	1.7	0.7
US (average)	9.8	12.0	3.3	6.1
New England	0.8	(3.6)	3.4	0.3
Connecticut	(3.4)	(7.8)	10.2	1.9
Maine	3.0	43.0	4.0	1.3
Massachusetts	2.0	(11.5)	(1.1)	(1.7)
New Hampshire	47.1	(0.6)	NA	2.1
Rhode Island	5.9	24.2	4.8	6.7
Vermont	(0.7)	50.7	3.8	0.0
Mideast	5.4	(8.3)	2.4	3.5
Delaware	(4.4)	(21.6)	NA	(0.7)
Maryland	ND	ND	ND	ND
New Jersey	(4.9)	7.2	0.0	(0.4)
New York	10.8	(10.5)	5.8	7.2
Pennsylvania	(0.1)	(16.4)	0.2	0.5
Great Lakes	3.5	(7.6)	0.5	1.2
Illinois	7.7	(12.7)	1.3	2.3
Indiana	4.7	7.5	(0.4)	1.6
Michigan	8.1	2.3	(0.5)	2.9
Ohio	(9.2)	NA	0.8	(2.0)
Wisconsin	2.6	(9.7)	1.7	1.0
Plains	(8.1)	28.4	2.1	5.8
lowa	(18.6)	6.0	2.7	4.3
Kansas	(3.6)	(1.0)	(3.7)	(3.6)
Minnesota	5.5	(0.8)	(0.5)	2.7
Missouri	(36.7)	15.4	5.4	1.3
Nebraska	27.5	264.9	15.2	50.1
North Dakota	(28.4)	204.9 11.7	10.7	22.2
South Dakota	(26.4) NA	(38.9)	(3.4)	(2.1)
Southeast	(0.8)	0.7	(3.4) 8.4	4.1
Alabama		6.9		
Arkansas	(1.9)	6.4	(4.1)	(0.0)
	(18.8)	12.8	3.6	(1.4)
Florida	NA (F. 4)		2.3	4.2
Georgia	(5.4)	(9.9)	1.0	(2.9)
Kentucky	(4.5)	(4.8)	5.9	0.9
Louisiana	12.3	8.3	(5.5)	4.7
Mississippi	(3.6)	(0.2)	2.4	0.5
North Carolina	16.2	61.3	75.0	36.6
South Carolina	(12.3)	(27.1)	2.6	(5.5)
Tennessee	NA (2.0)	(19.0)	0.3	(3.0)
Virginia	(3.3)	10.8	(4.3)	(1.3)
West Virginia	(0.4)	2.3	4.1	(11.6)
Southwest	(19.5)	(18.9)	2.7	(3.4)
Arizona	(28.1)	(23.6)	6.8	(12.2)
New Mexico	ND	ND	ND	ND
Oklahoma —	(4.0)	33.6	0.9	(3.4)
Texas	NA	NA	2.2	(1.4)
Rocky Mountain	2.2	6.1	1.6	3.5
Colorado	(2.5)	20.9	1.4	1.0
Idaho	9.8	(29.0)	0.5	(0.2)
Montana	11.0	15.5	NA	13.5
Utah	3.8	26.7	3.0	5.7
Wyoming	NA	NA	ND	ND
Far West	36.8	34.3	(0.5)	17.9

State/region	PIT	CIT	Sales	Total
Alaska	NA	(41.8)	NA	(43.2)
California	42.1	36.9	(0.9)	27.0
Hawaii	23.3	37.4	2.7	9.4
Nevada	NA	NA	ND	ND
Oregon	(2.3)	(1.9)	NA	(55.6)
Washington	NA	NA	(0.0)	0.3

Source: Individual state data, analysis by the author.

Notes: PIT = personal income tax; CIT = corporate income tax; NA = not applicable; ND = no data.

Notes

- ¹ In this report, all the references to inflation-adjusted (or real) revenues and growth rates are based on the adjustments using the GDP price index and relative to the third quarter of 2023.
- The author made several adjustments for the third quarter of 2023 and to several previous quarters of tax revenue data reported by the US Census Bureau based on information and data received directly from the states and from the Census Bureau.
- ³ In this report, the author uses US Bureau of Economic Analysis regions as the basis of analysis.
- ⁴ Office of Governor Gavin Newsom, "More Time to File State Taxes for Californians Impacted by December and January Winter Storms," March 2, 2023, https://www.gov.ca.gov/2023/03/02/more-time-to-file-state-taxes-for-californians-impacted-by-december-and-january-winter-storms/.
- The fiscal year in 46 states runs from July 1 to June 30. The fiscal year runs from October 1 to September 31 in Alabama and Michigan, from April 1 to March 31 in New York, and from September 1 to August 31 in Texas.
- ⁶ Income tax returns are usually due on April 15 in 35 of 41 states that have a broad-based personal income tax. The remaining six states have income tax return due dates later than April 15. Those states are Arkansas (May 15), Delaware (April 30), Hawaii (April 20), Iowa (April 30), Louisiana (May 15), and Virginia (May 1).
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- ⁸ The Conference Board, "US Consumer Confidence Fell Again in October," October 31, 2023, https://www.conference-board.org/topics/consumer-confidence/press/CCI-Oct-2023.
- ⁹ Jackson Brainerd, "Relief Is the Year's Most Prominent Tax Policy Trend," National Conference of State Legislatures, July 25, 2022, https://www.ncsl.org/research/fiscal-policy/relief-is-the-year-s-most-prominent-tax-policy-trend-magazine2022.aspx.
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54 ABOUT THE AUTHOR

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