



Executive summary

This study presents detailed state-by-state estimates of the state and local taxes paid by businesses in fiscal year 2020 (FY20). It is the 19th annual report prepared by Ernst & Young LLP in conjunction with the Council On State Taxation (COST) and the State Tax Research Institute (STRI).

Businesses paid more than \$839 billion in state and local taxes in FY20, an increase of 0.5% from FY19. State business taxes decreased by 1.9%, and local business taxes grew by 3.1%. In FY20, business tax revenue accounted for 44.3% of all state and local tax revenue.

The state and local business tax estimates presented in this study reflect tax collections from July 2019 through June 2020 in most states. As such, this report provides estimates of state and local business taxes prior to and during the first quarter of the COVID-19 pandemic, which has created disruptions in revenue for state and local governments. Impacts of the COVID-19 pandemic on business tax collections vary by state, but most states experienced a smaller decline in state tax revenues in FY20 than initially forecasted due to the pandemic.

The business taxes included in this analysis include business property taxes, sales and excise taxes paid by businesses on their input purchases and capital expenditures, gross receipts taxes, corporate income and franchise taxes, business and corporate license taxes, unemployment insurance taxes, individual income taxes paid by owners of noncorporate (pass-through) businesses, and other state and local taxes that are the statutory liability of business taxpayers.

The following are key findings of the study:

- Business property tax revenue increased by 3.8% in FY20, a gain of \$12.2 billion. Property taxes remain by far the largest state and local tax paid by businesses, accounting for 39.2% of the total state and local taxes they paid. Property taxes are also by far the largest local tax paid by businesses, representing 76.5% of all local taxes.
- General sales taxes on business inputs and capital investment totaled \$180.1 billion, or 21.5% of state and local business taxes. These sales taxes paid by businesses increased by 1.9% in FY20.2 Sales taxes on business inputs are the largest state tax paid by businesses (32.5% of all state taxes paid by businesses).

- Corporate income taxes decreased in FY20 after two consecutive years of increases. The decrease in state corporate income taxes in FY20 partially reflects timing changes with some states allowing businesses to file taxes in FY21 due to the COVID-19 pandemic. In FY20, state and local corporate income taxes totaled \$71.7 billion, or 8.5% of all state and local business taxes and a decrease of 6.3% from FY19. Certain statewide gross receipts taxes levied in lieu of corporate income taxes are included in this measure.
- Individual income taxes on pass-through business income accounted for 6.0% of total state and local business taxes. State and local individual income taxes on business income decreased by 5.6% from FY19 mostly due to filing delays that pushed tax payments into FY21 due to the COVID-19 pandemic. Individual income taxes decreased in 30 states in FY20, with California accounting for 69% of the \$3.0 billion decrease.
- Severance taxes decreased from \$15.0 billion in FY19 to \$11.6 billion in FY20, a decrease of 22.5%. Twenty-nine states saw a drop in severance tax, with Texas accounting for nearly half of the decline.
- FY20 state and local business taxes were equal to 4.5% of the total US private-sector gross state product (GSP), which measures the total value of a state's annual private-sector production of goods and services. There was substantial variation across states, with taxes ranging from 3.3% to 8.7% of private-sector GSP.
- On average, businesses paid more in state and local taxes than they received in benefits in FY20. Businesses paid on average \$3.29 in taxes per dollar of government spending benefiting businesses, assuming that in-state education spending does not benefit in-state businesses. Under an alternate assumption, if half of in-state education spending benefits in-state businesses, businesses paid \$1.11 for every dollar of government spending benefiting businesses.

Total state and local business taxes in FY20

Businesses paid \$839.3 billion in total state and local taxes in FY20, as presented in Table 1.³ This section describes the business taxes in more detail and highlights the key results.

- As shown in Table 1 and Figure 1b, property tax revenue on real and personal property owned by businesses accounts for the largest share of total state and local business tax revenue 39.2% (or \$329.2 billion) in FY20. Business property tax revenue increased by 3.8% in FY20. Figure 2 shows business property tax revenue as a share of total property tax revenue in FY20. Of the \$598.4 billion of total property tax revenue, 55.0% (\$329.2 billion) of the collections were taxes on business property.
- ▶ General sales and use tax revenue derived from businesses on purchases of inputs, including capital equipment, totaled \$180.1 billion, or 21.5% of all state and local business taxes. General sales and use tax revenue derived from business increased 1.9% overall. Sales and use taxes collected on sales to final consumers are excluded as only the taxes paid on businesses' operating inputs and capital equipment purchases are included in the total business tax estimates.⁴ Figure 2 displays general sales tax revenue on business inputs as a share of total state and local general sales tax revenue. In FY20, 41.7% of total sales tax revenue was from sales tax on business inputs. Figure 3 shows the state-by-state breakdown of the business share of the general sales tax.

Table 1. Total state and local business taxes, FY19-FY20 (\$ billions)

Business tax	FY19*	FY20	2020 % total taxes	One-year change
Property taxes on business property	\$317.0	\$329.2	39.2%	3.8%
General sales taxes on business inputs	176.6	180.1	21.5%	1.9%
Corporate income tax	76.5	71.7	8.5%	-6.3%
Excise taxes	51.4	52.8	6.3%	2.7%
Individual income tax on business income	53.4	50.4	6.0%	-5.6%
Business and corporate license	41.1	41.5	4.9%	1.1%
Unemployment insurance	36.2	34.8	4.1%	-3.9%
Public utility taxes	27.4	26.3	3.1%	-3.9%
Insurance premium taxes	24.6	25.7	3.1%	4.6%
Other business taxes	15.7	15.4	1.8%	-1.9%
Severance taxes	15.0	11.6	1.4%	-22.5%
Total state and local business taxes	\$834.9	\$839.3	100.0%	0.5%

^{*}FY19 business tax estimates are revised from the COST FY19 study because of newly released data from the U.S. Census Bureau. See Appendix for more information.

Note: amounts may not sum because of rounding.



- ► State and local corporate income tax revenue was \$71.7 billion in FY20, a decrease of 6.3% from FY19. This decline can be attributed to corporate revenue filing deadlines shifting into FY21 due to state policy decisions surrounding the COVID-19 pandemic. Corporate income taxes remain a relatively small percentage of total state and local tax collections from businesses (see Table 1). Also note that Ohio's commercial activity tax, Texas' margin tax, New Hampshire's business enterprise tax, Nevada's commerce tax, Oregon's corporate activity tax, and Washington's business and occupation tax are included in corporate income tax revenue. These taxes are based on gross receipts or modified gross receipts and constitute the primary business entity tax in each state.
- ► Excise taxes paid by businesses totaled an estimated \$52.8 billion in FY20, an increase of 2.7% from FY19. Excise taxes attributed to businesses include a portion of motor fuel taxes and other excise taxes, such as taxes on hotel and rental car expenditures by businesses, as well as health care provider taxes on the revenue of hospitals and other providers of health services.
- ► Individual income taxes paid by owners of pass-through entities (e.g., partnerships, sole proprietorships, limited liability companies and S corporations) totaled an estimated \$50.4 billion in FY20, a decrease of 5.6% from FY19. Again, a portion of this decline is due to shifting of filing deadlines due to the COVID-19 crisis. Nearly two-thirds of the decrease was concentrated in California. Individual income taxes from pass-through business income represent 6.0% of total state and local business taxes. At the federal level, taxpayers reporting certain types of pass-through entity income are entitled to a deduction equal to 20% of their pass-through income, but most states do not conform to this provision.
- ▶ Business and corporate license tax revenue totaled \$41.5 billion, an increase of 1.1% from FY19. In FY20, business and corporate license tax revenue contributed to 4.9% of total state and local business tax collections.

Figure 1a. Composition of total state and local taxes on business and households, FY20

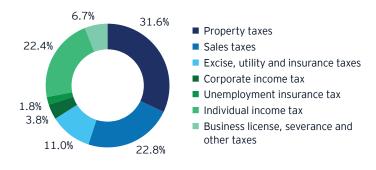
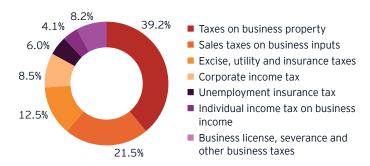


Figure 1b. Composition of total state and local taxes on business, FY20

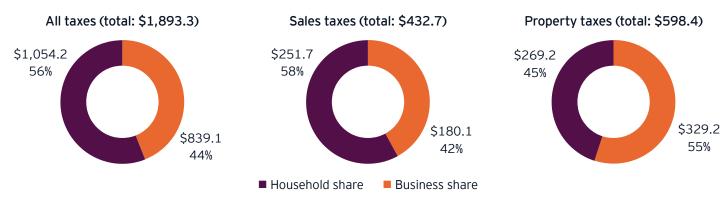


Note: Figures may not sum due to rounding.



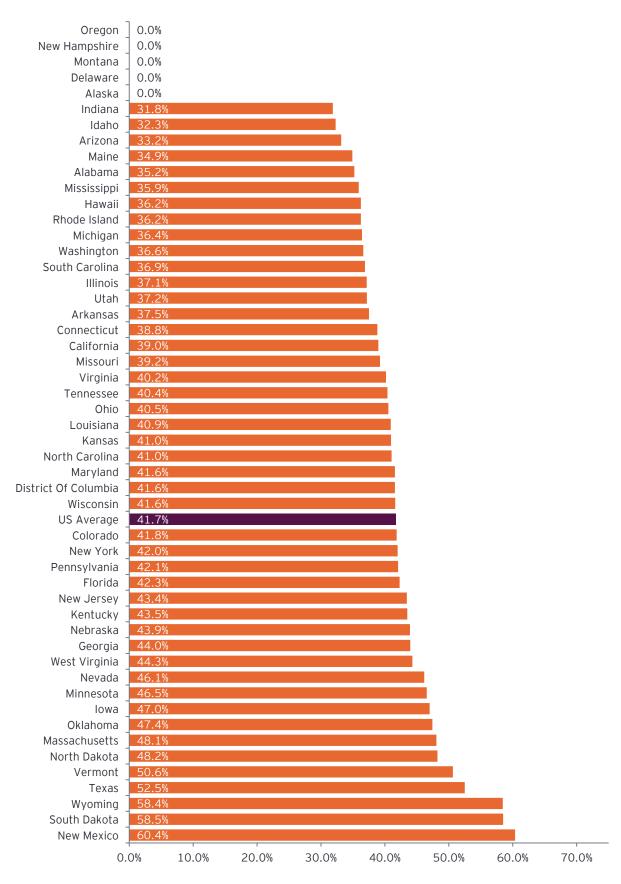
- ► Employer contributions to unemployment insurance (unemployment taxes) were \$34.8 billion in FY20, a decrease of \$1.4 billion, or 3.9% from FY19. In FY20, mass layoffs at the end of the fiscal year resulted in lower employer contributions to state unemployment insurance trust funds.
- ▶ Public utility tax revenue decreased by 3.9% to \$26.3 billion in FY20. In total, 29 states experienced declines in public utility tax revenue. These taxes are generally based on business gross receipts, and because they are often levied in lieu of property or corporate income taxes, they are allocated solely to businesses.
- ► Taxes on insurance premiums totaled \$25.7 billion in FY20, an increase of 4.6% from FY19.
- Other state and local business taxes, including motor vehicle license tax and documentary and stock transfer tax, totaled \$15.4 billion in FY20, a 1.9% decrease from the previous year.
- ► State and local severance taxes decreased by \$3.4 billion, or 22.5%, in FY20 to \$11.6 billion. Severance taxes declined in 29 states.

Figure 2. Total state and local taxes (\$ billions) and business and household taxes as a share of total tax collections, FY20



Note: Figures may not sum due to rounding.

Figure 3. Share of state and local general sales tax attributable to business inputs by state*



^{*}Based on analysis last updated in FY17.

Classifying business taxes

This study generally defines business taxes as those that are the legal liability of businesses. Certain taxes collected by businesses, such as excise taxes on tobacco and alcohol and sales taxes on household purchases are not included. In addition, individual income tax on pass-through business income is included as a legal tax liability of business owners. The business taxes included in this analysis are as follows:

- Property taxes paid by businesses on real and personal property; taxes on income-generating residential rental property are treated as business taxes
- General sales taxes paid by businesses on purchases of goods and services used in production; sales taxes on final goods paid by consumers are not included
- ► A portion of excise taxes, such as businesses' share of motor fuel taxes and other selective sales taxes
- ► Corporate income taxes
- ► Gross receipts taxes on businesses
- Taxes on insurance premiums and utility gross receipts, which are in some cases levied in lieu of other business entity taxes
- Individual income taxes on pass-through business income; taxes withheld on employee earnings are not considered business taxes

- Unemployment insurance taxes paid by employers
- Business licenses, including general business licenses, specific industry and occupational licenses, and commercial motor vehicle licenses
- Severance taxes on mining, natural gas, oil and other natural resources

In most states, the corporate income tax is the primary tax levied specifically on business entities, but other types of taxes are used in several states. Nevada, Ohio, Texas and Washington levy a tax based on gross receipts in place of a traditional corporate income tax. In addition, New Hampshire's business enterprise tax is levied on a value-added base rather than income. This analysis considers gross receipts and value-added business entity taxes as corporate income tax revenue since the taxes act as an alternative to the corporate income tax in these states. Many states also levy franchise taxes based on the capital stock or net worth of a business. As shown in Table 1 and Figures 1a and 1b, businesses pay more in property and sales taxes than they do in specific corporate income, franchise or gross receipts taxes.



State vs. local business taxes in FY20

State business tax revenue fell while local business tax revenue grew in FY20 driven primarily by increases in local property tax and sales tax. Tables 2-A and 2-B provide dollar amounts, percentage distributions and growth rates in FY20 for total business taxes at the state and local levels of government. Total state and local business tax revenues increased by \$4.4 billion in FY20, after growing by \$45.4 billion in FY19 from the prior fiscal year (see Appendix Table A2). In FY20, state business tax revenue declined by 1.9%, and local business tax revenue grew by 3.1%.

At the state level, business tax revenue decreased by 1.9%, or \$8.1 billion, from FY19 to FY20. Sales taxes on business inputs, which made up 32.5% of state business tax revenue in FY20, increased by 1.8%, or \$2.5 billion, from FY19. Severance taxes decreased by \$3.4 billion, a decrease of 22.6% in FY20. Corporate income taxes decreased 7.0% while individual income taxes on pass-through business income decreased 6.1% in FY20. Unemployment insurance tax revenue decreased by \$1.4 billion in FY20.

The largest local tax that businesses pay, business property taxes, increased by about \$11.8 billion, or 3.9%, from FY19 to FY20. Local sales taxes on business inputs increased by 2.4%, while excise taxes increased by 1.0% and public utility taxes decreased by 3.9%. Local business taxes grew by a total of \$12.5 billion in FY20.

Tables 2-A and 2-B demonstrate that the composition of state business taxes differs significantly from business taxes at the local level. Table 2-A shows the percentage distribution of state business taxes by tax type; Table 2-B shows the distribution of local business taxes by tax type. While state business tax revenues draw on a relatively broad set of sources, local governments rely heavily on property tax revenue, which made up 76.5% of local business taxes in FY20. The largest business tax at the state level – the sales and use tax – accounted for 32.5% of state business tax revenue in FY20.

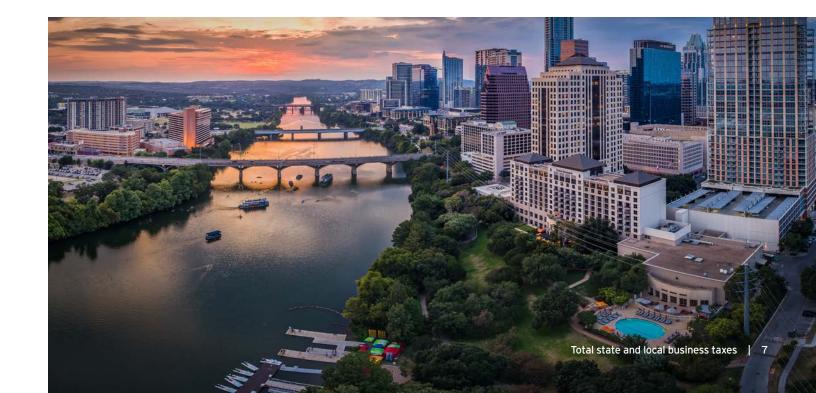




Table 2-A. State business taxes, FY19-FY20 (\$ billions)

Business tax	State business taxes FY19	State business taxes FY20	% total state business taxes	One-year growth, state business taxes
General sales and use tax on inputs	\$135.8	\$138.2	32.5%	1.8%
Corporate net income	69.0	64.2	15.1%	-7.0%
Individual income tax on business income	49.0	46.1	10.8%	-6.1%
Excise taxes on business inputs	42.2	43.2	10.2%	2.6%
Unemployment insurance	36.2	34.8	8.2%	-3.9%
Business license tax	25.7	25.9	6.1%	1.0%
Insurance premium tax	23.6	24.7	5.8%	4.8%
Property tax on business property	11.9	12.2	2.9%	3.3%
Public utility tax	12.2	11.7	2.8%	-4.0%
Severance taxes	14.9	11.5	2.7%	-22.6%
Other business taxes	12.8	12.5	2.9%	-2.5%
Total state business taxes	\$433.1	\$425.1	100.0%	-1.9%

Note: Amounts may not sum due to rounding.

Source: Ernst & Young LLP estimates based on data from the U.S. Census Bureau State and Local Government Finances.

Table 2-B. Local business taxes, FY19-FY20 (\$ billions)

Business tax	Local business taxes FY19*	Local business taxes FY20	% total local business taxes	One-year growth, local business taxes
Property taxes on business property	\$305.2	\$317.0	76.5%	3.9%
General sales taxes on business inputs	40.9	41.8	10.1%	2.4%
Public utility taxes	15.2	14.6	3.5%	-3.9%
Excise taxes on business inputs	9.2	9.3	2.2%	1.0%
Other business taxes**	31.3	31.5	7.6%	0.6%
Total local business taxes	\$401.8	\$414.2	100.0%	3.1%

^{*}FY19 business tax estimates are revised from the COST FY19 study because of newly released data from the U.S. Census Bureau.

Note: Amounts may not sum due to rounding.

^{**} Includes local corporate income taxes.

State-by-state business tax collections

Figure 4 shows the state-by-state change in total state and local business taxes between FY19 and FY20. States with significant tax changes in FY20 and trends in business tax collections are described below.

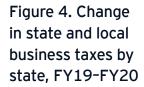
- ▶ States experienced a decline in corporate income tax and individual income tax on business income due to extended filing and payment deadlines. In response to the COVID-19 pandemic, the federal government extended filing and payment deadlines for income taxes from April 15 to July 15, 2020. Many states mirrored the federal government's filing deadline extension, delaying revenue that would have been realized in FY20 until FY21.
- ► States with the largest declines in business taxes were Alaska (-17.1%) and North Dakota (-13.0%) due to large declines in severance taxes and net corporate income taxes. Severance tax collections declined 31% in Alaska and 20% in North Dakota.
- On the other end of the spectrum, Connecticut and Maine had the largest increases in business taxes. Connecticut's corporate income tax increased from \$900 million in FY19 to nearly \$2.1 billion in FY20.
- ► Seventeen states adopted a new sales tax collection requirement for remote sellers or expanded their existing remote sales tax collection law to include marketplace facilitators. This mitigated the impact of the COVID-19 pandemic on sales tax revenues in Q4 of 2020 and helped contribute to the 1.9% increase in sales tax revenue from businesses in FY20.
- ▶ Indiana's corporate income tax rate decreased from 5.75% to 5.50% with corporate income tax collections remaining at FY19 levels. Florida's corporate income and franchise tax rate was reduced from 5.500% to 4.458% contributing to a 20% decrease in corporate tax revenues.
- ► Colorado's flat personal and corporate income tax rates were reduced from 4.63% to 4.55%. Colorado's corporate income tax revenue fell 12% in FY20. New Jersey extended a temporary surcharge on corporate taxable income exceeding \$1 million and restored the surcharge's higher rate.

- Oregon implemented a modified state gross receipts tax, the Corporate Activity Tax, that went into effect on January 1, 2020, and will be fully reflected in the FY21 tax collection data. The Corporate Activity Tax added \$419.2 million in state tax revenue from businesses in FY20.
- New Jersey increased the individual income tax rate on income between \$1 million and \$5 million. Even with this change, estimated individual income tax on business income declined 3% in FY20.

Table 3 presents state and local business tax collections by tax type and state. The results show that states vary widely in the composition of their business tax structures, which has implications for revenue growth and stability in each state. Appendix Table A3 presents the percentage composition by tax type for each of the 50 states and the District of Columbia.







(percentage change in total state and local business taxes)

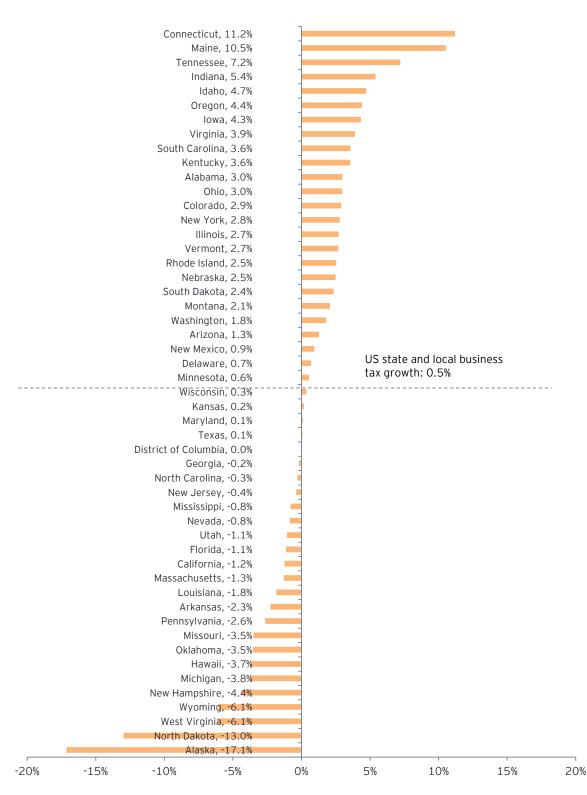


Table 3. State and local business taxes, by type FY20 (\$ billions)

			Excise tax, including			Individual income tax		
			public utilities	Corporate	Unemployment		License and	Total business
	Property tax	Sales tax	and insurance	income	insurance tax	income	other taxes*	taxes
Alabama	\$2.4	\$2.0	\$1.9	\$0.8	\$0.2	\$0.4	\$0.9	\$8.6
Alaska	1.0	. –	0.2	0.2	0.1	· –	0.7	2.2
Arizona	5.0	4.2	1.3	0.5	0.4	0.4	0.7	12.6
Arkansas	1.6	1.9	0.6	0.5	0.2	0.2	0.3	5.3
California	41.1	23.7	13.7	9.8	5.9	11.1	13.0	118.4
Colorado	7.5	3.5	1.5	0.7	0.6	1.0	0.7	15.5
Connecticut	3.1	1.8	1.3	2.1	0.7	1.2	0.3	10.4
Delaware	0.4	_	0.3	0.3	0.1	0.2	1.9	3.0
Florida	19.5	12.6	7.4	2.5	0.4	_	3.0	45.3
Georgia	8.2	4.5	2.7	1.0	0.6	1.4	0.9	19.2
Hawaii	1.2	1.4	0.9	0.0	0.2	0.3	0.2	4.3
Idaho	1.2	0.7	0.3	0.2	0.1	0.3	0.2	3.1
Illinois	17.0	5.5	6.2	3.5	1.7	1.8	1.7	37.4
Indiana	5.6	2.6	1.8	0.8	0.5	1.3	0.3	12.8
Iowa	3.3	1.8	0.8	0.6	0.4	0.6	0.5	8.1
Kansas	3.0	1.9	0.8	0.4	0.3	-	0.3	6.7
Kentucky	2.8	1.8	1.7	0.8	0.4	0.6	0.5	8.7
Louisiana	3.3	3.2	1.4	0.5	0.2	0.5	0.9	10.1
Maine	3.2	0.6	0.3	0.2	0.1	0.2	0.2	4.8
Maryland	3.6	2.1	2.6	1.3	0.5	1.8	1.0	12.8
Massachusetts	7.3	3.3	1.3	2.5	1.8	1.9	0.9	19.0
Michigan	6.5	3.4	1.7	0.8	1.2	0.9	1.1	15.5
Minnesota	4.6	3.1	2.4	1.6	0.8	1.1	1.1	14.7
Mississippi	2.6	1.4	0.8	0.4	0.1	0.2	0.4	5.9
Missouri	3.8	2.8	0.8	0.4	0.3	0.6	0.8	9.7
Montana	1.2	_	0.3	0.2	0.1	0.2	0.4	2.4
Nebraska	2.5	1.2	0.4	0.4	0.1	0.4	0.4	5.2
Nevada	1.5	2.8	1.3	0.2	0.7	-	1.6	8.1
New Hampshire	1.6	-	0.4	0.8	0.0	0.0	0.4	3.3
New Jersey	14.9	4.8	2.9	3.6	2.1	2.0	1.4	31.7
New Mexico	1.0	2.7	0.5	0.1	0.1	0.1	1.7	6.2
New York	39.4	14.5	8.5	11.1	2.3	9.3	3.4	88.5
North Carolina	5.6	4.9	2.0	0.7	0.5	1.2	1.7	16.6
North Dakota	0.8	0.6	0.3	0.1	0.1	0.1	2.2	4.2
Ohio	8.0	5.4	3.4	2.3	1.1	1.5	1.8	23.4
Oklahoma	2.0	2.5	0.8	0.3	0.2	0.7	1.5	7.9
Oregon	3.4	_	1.1	1.4	0.9	0.9	1.3	9.1
Pennsylvania	11.9	5.3	4.2	3.1	2.8	2.4	2.7	32.5
Rhode Island	1.2	0.4	0.4	0.2	0.2	0.1	0.1	2.7
South Carolina	4.5	1.7	1.1	0.5	0.3	0.5	1.1	9.6
South Dakota	8.0	0.9	0.3	0.0	0.0	-	0.2	2.3
Tennessee	3.4	4.8	2.1	1.5	0.3	0.0	1.5	13.7
Texas	38.0	22.5	9.3	4.2	2.3	_	6.5	82.9
Utah	2.4	1.5	1.0	0.4	0.2	0.4	0.3	6.1
Vermont	1.4	0.2	0.3	0.1	0.1	0.1	0.1	2.4
Virginia	9.7	2.9	3.0	1.4	0.4	1.1	1.7	20.1
Washington	6.0	6.4	3.8	4.5	1.1	-	1.7	23.5
West Virginia	1.3	0.6	0.7	0.2	0.2	0.2	0.6	3.8
Wisconsin	4.6	2.6	1.3	1.4	0.6	0.8	0.9	12.2
Wyoming	0.9	0.5	0.1	-	0.1	-	0.6	2.2
District of Columbia United States	\$329.2	0.5 \$180.1	0.3 \$104.6	0.7 \$71.7	0.2 \$34.8	0.4 \$50.4	0.2 \$68.5	\$839.3

^{*&}quot;Corporate income" and "Individual income tax on business income" include gross receipts taxes levied in Nevada, Ohio, Texas, and Washington and the business enterprise tax in New Hampshire. The "License and other taxes" category includes death and gift taxes, documentary and stock transfer taxes, severance taxes and local gross receipts taxes. Certain Ohio localities impose a net profits tax, which is reflected in the state's "Corporate income" amount. The small amount of corporate profits taxes at the local level in Michigan is reflected in the state's "License and other taxes" amount. Note: "-" indicates zero collections; "0.0" indicates collections of less than \$50 million.

COVID-19 pandemic revenue impacts

Tax collections in FY20 were trending positively until the fourth quarter when COVID-19 lockdowns occurred and tax filing deadlines were extended. Table 4 uses a second U.S. Census data source to examine the pre-COVID-19 pandemic revenue growth of the first three quarters of FY20 compared with the prior year (FY19).⁵ All major revenue sources (property, individual income, corporate income and general sales) increased by over 5% from the prior fiscal year before the beginning of the pandemic in March 2020. Corporate income had increased by 9.7%.

During the fourth quarter, overall state and local taxes declined by approximately 5%. If growth had continued at the rate experienced in the prior quarters, fiscal year business taxes would have been approximately 5.5% higher rather than 0.5% higher, suggesting that the COVID-19 pandemic reduced business tax collections by approximately \$40 billion in FY20.

A large portion of this lost revenue will be recouped by states in FY21 when delayed filing payments are collected. In total, 43 states shifted the payments of either personal, corporate or general sales taxes to FY21.

Table 4. Impact of the COVID-19 pandemic on FY20 state and local tax revenue collections

Revenue Source	FY20 Q1-Q3, % change from prior year	FY20 total % change from FY19
Property	5.3%	3.8%
Individual	5.3%	-5.6%
Corporate	9.7%	-6.3%
Sales	5.6%	1.9%
Total	5.5%	0.5%

Source: Ernst & Young LLP calculations based on data from the U.S. Census Bureau Quarterly Summary of State and Local Revenue 2018, 2019 and 2020.



Comparing state business tax levels

A state's business tax burden can be measured in many ways. One approach is to compare the level of business taxes with the level of economic activity that is subject to taxation (private sector gross domestic product). State and local business taxes are imposed on a variety of tax bases, including net income, input purchases, payroll and property. Therefore, a broad measure of a state's overall economic activity should be used to determine the measure of aggregate business tax burden that can be compared across states.

Table 5 and Figure 5 present stateby-state estimates of state and local business taxes and total taxes, as well as the total effective business tax rate (TEBTR) imposed on business activity by state and local governments in FY20. The TEBTR is measured as the ratio of state and local business taxes to privatesector GSP, the total value of a state's annual production of goods and services by the private sector. The average TEBTR across all states was 4.5%.

North Carolina had the lowest TEBTR -3.26%, followed by Michigan (3.29%) and Missouri (3.37%) – meaning that as a share of economic activity, the state's corporate income, excise and license taxes were lower than those of other states. These states rely less on business taxes, instead generating a greater share of tax revenue from households. Georgia had 3.49%, the next-lowest TEBTR.

North Dakota had the highest TEBTR, at 8.7%, because of its heavy reliance on severance taxes paid by extractive industry firms operating in the state.

TEBTRs provide a starting point for comparing burdens across states, but they do not provide sufficient information to evaluate a state's competitiveness. States with relatively low TEBTRs that derive most of their business taxes from origin-based taxes such as property taxes and sales taxes are likely not as competitive in attracting investment and jobs as states with higher TEBTRs that rely on taxes paid disproportionately on out-of-state businesses. TEBTRs also do not indicate the economic incidence of a tax. When a tax can be passed on to consumers, it does not cause the same effects on investment and job creation as an originbased tax. In certain states with salesfactor apportionment and market-based sourcing of sales, a large portion of the business entity tax may be paid by outof-state companies on in-state sales.6

Furthermore, two states with similar TEBTRs may vary in the way they tax certain industries – a difference that is not considered in this analysis. It is also important to note that the TEBTR is a measure of the average tax burden on existing businesses in a state rather than a measure of the marginal tax that would be borne by a company investing in a new or expanded facility. For this reason, the TEBTR is one metric that can be used to evaluate a state's business tax structure but is not a clear indicator of the competitiveness of a state's business tax system in terms of attracting new investment.



Table 5. Business taxes as a share of state, local, and total taxes and private sector GSP, FY20 (\$ billions)

	State	e taxes	Local	taxes	State and	l local taxes		Business taxes
State	Business	Total	Business	Total	Business	Total	TEBTR*	per employee (\$ thousands)**
Alabama	\$4.8	\$12.3	\$3.8	\$6.6	\$8.6	\$18.8	4.6%	5.1
Alaska	1.2	1.4	1.0	2.0	2.2	3.4	5.4%	8.7
Arizona	6.2	18.2	6.4	12.1	12.6	30.3	3.9%	5.0
Arkansas	4.0	10.4	1.3	2.6	5.3	13.0	4.7%	5.0
California	62.5	177.9	55.9	106.8	118.4	284.7	4.3%	7.7
Colorado	5.3	15.6	10.2	17.5	15.5	33.1	4.5%	6.6
Connecticut	7.2	19.1	3.2	11.9	10.4	31.0	4.1%	7.0
Delaware	2.6	4.6	0.4	1.2	3.0	5.8	4.5%	7.7
Florida	19.8	43.5	25.5	42.1	45.3	85.7	4.6%	5.7
Georgia	7.9	24.3	11.3	19.9	19.2	44.2	3.5%	4.9
Hawaii	2.7	7.9	1.6	3.0	4.3	10.9	5.8%	7.9
Idaho	1.8	5.4	1.3	2.3	3.1	7.7	4.2%	5.0
Illinois	16.9	47.0	20.5	37.4	37.4	84.4	4.7%	6.9
Indiana	6.9	22.9	5.9	9.8	12.8	32.6	3.8%	4.7
lowa	4.2	11.1	3.9	6.7	8.1	17.8	4.7%	6.0
Kansas	3.4	9.9	3.3	5.7	6.7	15.6	4.4%	5.7
Kentucky	5.1	13.7	3.6	6.1	8.7	19.8	4.7%	5.3
Louisiana	4.7	11.6	5.3	9.1	10.1	20.7	4.6%	5.9
Maine	1.6	5.0	3.2	4.3	4.8	9.3	8.3%	9.0
Maryland	7.9	24.4	4.9	17.4	12.8	41.8	3.8%	5.6
Massachusetts	11.2	33.4	7.7	18.9	19.0	52.4	3.6%	5.7
Michigan	9.6	29.2	5.9	14.7	15.5	43.9	3.3%	4.0
Minnesota	9.9	27.5	4.7	10.2	14.7	37.7	4.3%	5.7
Mississippi	3.2	8.2	2.7	3.6	5.9	11.8	6.2%	6.2
Missouri	3.9	12.8	5.8	11.7	9.7	24.5	3.4%	3.9
Montana	1.4	3.3	1.0	1.6	2.4	4.9	5.4%	6.1
Nebraska	2.2	5.9	3.0	5.1	5.2	11.0	4.6%	6.1
Nevada	5.5	10.1	2.6	5.2	8.1	15.3	5.2%	6.6
New Hampshire	1.8	2.9	1.5	4.0	3.3	6.9	4.3%	5.6
New Jersey	16.5	40.1	15.2	32.6	31.7	72.7	5.7%	8.8
New Mexico	4.3	7.3	1.9	3.4	6.2	10.7	8.0%	9.4
New York	30.4	95.1	58.1	109.6	88.5	204.7	5.7%	10.7
North Carolina	9.2	28.8	7.5	15.8	16.6	44.7	3.3%	4.3
North Dakota	3.2	4.5	1.0	1.5	4.2	6.0	8.7%	11.9
Ohio	13.2	31.7	10.2	26.1	23.4	57.8	3.8%	4.8
Oklahoma	4.6	10.5	3.3	6.0	7.9	16.5	4.9%	5.9
Oregon	4.4	13.7	4.6	9.2	9.1	22.9	4.1%	5.3
Pennsylvania	17.6	43.5	14.8	30.8	32.5	74.3	4.5%	6.0
Rhode Island	1.4	3.7	1.2	2.8	2.7	6.6	5.0%	6.1
South Carolina	3.8	12.1	5.7	9.1	9.6	21.2	4.6%	5.3
South Dakota	1.2	2.1	1.1	1.9	2.3	3.9	4.7%	6.3
Tennessee	8.9	17.0	4.8	9.2	13.7	26.2	4.2%	5.1
Texas	37.8	63.3	45.1	76.4	82.9	139.7	5.2%	7.6
Utah	2.8	8.9	3.3	5.8	6.1	14.7	3.6%	4.7
Vermont	1.8	3.5	0.6	0.8	2.4	4.3	8.3%	8.8
Virginia	7.7	28.0	12.4	20.2	20.1	48.2	4.4%	6.1
Washington	15.2	30.1	8.2	18.2	23.5	48.3	4.3%	8.1
West Virginia	2.2	5.7	1.6	2.1	3.8	7.8	6.0%	6.6
Wisconsin	7.2	20.7	5.0	10.7	12.2	31.4	4.0%	4.7
Wyoming	1.4	2.0	0.8	1.1	2.2	3.2	6.9%	10.3
	4.8	8.6	0.0	0.0	4.8	8.6	5.0%	8.7
United States	\$425.1	\$1,100.5	\$414.2	\$792.8	\$839.3	\$1,893.3	4.5%	6.5

^{*}Average of calendar year 2019 and calendar year 2020 private-industry GSP. This is the TEBTR on economic activity occurring within the state.

Note: amounts may not sum because of rounding. TEBTR equals taxes as a percentage of private-sector gross state product. Source: Ernst & Young LLP estimates based on data from the U.S. Census Bureau State and Local Government Finances.

^{** &}quot;Business taxes per employee" calculated using 2019 private-sector employment from Bureau of Labor Statistics Quarterly Census of Employment and Wages and FY20 total state and local business tax collections.

Figure 5. Total effective business tax rate by state, FY20

(State and local business taxes divided by private sector gross state product in each state)

Source: Ernst & Young LLP estimates based on data from the Bureau of Economic Analysis and the U.S. Census Bureau State and Local Government Finances.

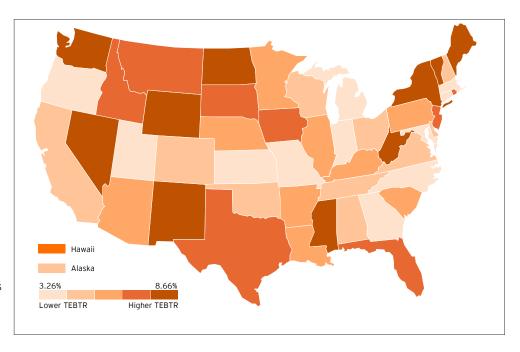


Table 6 summarizes the share of taxes paid by businesses in each state. Business taxes accounted for 44.3% of total state and local taxes in FY20. Business taxes accounted for a smaller share of state taxes (38.6%) than local taxes (52.2%). The share of local taxes paid by businesses is higher than the state share because businesses pay 55.0% of local property taxes, which account for 72.7% of total (business and household) local tax collections, while state governments rely most heavily on sales taxes, of which the majority are paid by households.

The business share of total state and local taxes has remained relatively stable at close to 44% over the past six years, as shown in Appendix Table A1. Although some individual income taxes are imposed on business income, the vast majority falls on households. Individual income taxes on nonbusiness income (i.e., households) accounted for 19.7% of total state and local tax revenue in FY20.

The share of total state and local taxes paid by businesses varies significantly by state for several reasons. The states with the highest business share in FY20 include North Dakota (70.8%), Wyoming (69.7%), Alaska (64.0%), Texas (59.3%) and South Dakota (58.1%). All these states have significant severance taxes paid by businesses. Additionally, South Dakota, Texas and Wyoming do not have an individual income tax, which is predominantly paid by households, creating a greater reliance on business taxes in these states.

The states with the lowest business tax share include Maryland (30.7%), Connecticut (33.5%), Michigan (35.3%), Massachusetts (36.2%), North Carolina (37.3%) and Wisconsin (38.8%). Connecticut and Maryland generate the smallest share of their overall tax receipts from business taxes.

The structure of both states' economies plays a significant role in generating this result. In Connecticut, significant income earned by high-income taxpayers contributes to individual income tax receipts that outweigh business collections. In Maryland, the state receives a low share of its total tax revenue from business taxes because the state relies heavily on the individual income tax to generate tax revenue from employment related to the significant nontaxable federal government and nonprofit activity in the state. In FY20, 39.7% of total state and local taxes came from the individual income tax in Maryland, compared with 22.4% nationally. This greater reliance on the individual income tax increases business income taxes on pass-through income but reduces the overall business share and TEBTR.

A high share of total state and local taxes paid by business does not necessarily translate into a high effective business tax rate on economic activity. States without individual income taxes generally derive a larger share of their total tax revenue from business taxes, even though business taxes in these states may not be significantly higher than the national average. The business tax burden would not increase if household taxes were cut and no new taxes were imposed on businesses, but the business share of total taxes would increase. For instance, 52.3% of taxes in Delaware are paid by businesses (8.0% above the average), but the TEBTR is 4.5% (equal to the average). In this case, the high business share is largely attributable to the corporation license tax, which generates substantial revenue due to the significant number of businesses incorporated in Delaware.



Table 6. Business share of total state and local taxes, FY20

	Business share of	Business share of	Business share of total state and local
State	state taxes	local taxes	taxes
Alabama	39.5%	57.1%	45.7%
Alaska	81.2%	51.4%	64.0%
Arizona	33.9%	52.9%	41.5%
Arkansas	38.0%	50.5%	40.5%
California	35.1%	52.3%	41.6%
Colorado	33.7%	58.3%	46.7%
Connecticut	37.6%	27.0%	33.5%
Delaware	56.5%	35.8%	52.3%
Florida	45.4%	60.6%	52.9%
Georgia	32.5%	57.0%	43.5%
Hawaii	33.8%	53.7%	39.3%
Idaho	33.9%	56.1%	40.4%
Illinois	35.9%	54.8%	44.3%
Indiana	30.2%	60.8%	39.4%
Iowa	38.1%	57.7%	45.5%
Kansas	34.6%	57.8%	43.1%
Kentucky	37.4%	59.0%	44.0%
Louisiana	40.7%	58.8%	48.7%
Maine	32.6%	73.7%	51.7%
Maryland	32.6%	28.0%	30.7%
Massachusetts	33.5%	40.9%	36.2%
Michigan	32.8%	40.2%	35.3%
Minnesota	36.1%	46.4%	38.9%
Mississippi	38.5%	75.7%	49.8%
Missouri	30.4%	49.3%	39.4%
Montana	43.0%	61.8%	49.1%
Nebraska	36.9%	59.8%	47.5%
Nevada	54.0%	51.0%	53.0%
New Hampshire	61.2%	37.9%	47.7%
New Jersey	41.3%	46.5%	43.6%
New Mexico	59.1%	57.0%	58.5%
New York	32.0%	53.0%	43.2%
North Carolina	31.9%	47.0%	37.3%
North Dakota	72.5%	65.9%	70.8%
Ohio	41.7%	39.3%	40.6%
Oklahoma	43.7%	55.4%	48.0%
Oregon	32.3%	50.2%	39.5%
Pennsylvania	40.6%	48.1%	43.7%
Rhode Island	38.4%	43.1%	40.4%
South Carolina	31.6%	63.0%	45.1%
South Dakota	58.0%	60.4%	59.1%
Tennessee	52.4%	52.2%	52.4%
Texas	59.6%	59.1%	59.3%
Utah	31.4%	56.7%	41.5%
Vermont	50.6%	70.4%	54.4%
Virginia	27.4%	61.5%	41.7%
Washington	50.6%	45.1%	48.5%
West Virginia	38.9%	75.8%	49.0%
Wisconsin	34.7%	46.8%	38.8%
Wyoming	69.4%	70.2%	69.7%
District of Columbia	56.0%	n/a	56.0%
United States	38.6%	52.2%	44.3%

Note: District of Columbia taxes are treated as state taxes in this analysis. Source: Ernst & Young LLP estimates based on data from the U.S. Census Bureau State and Local Government Finances.

Governmental benefits received by businesses vs. taxes paid

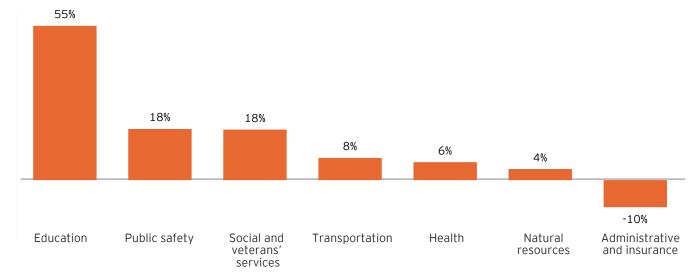
In addition to the TEBTR, the business tax burden can be evaluated by comparing business taxes paid with benefits received by businesses due to government spending. Because government spending can reduce businesses' nontax costs, if two businesses pay the same amount of taxes but one receives larger benefits from government spending, the true burden of taxes is not the same for both businesses. Calculating the business tax-to-benefit ratio estimates the extent to which businesses are "getting what they paid for" from their tax dollars.

Due to the COVID-19 pandemic, in March 2020 the federal government passed a \$2 trillion stimulus bill called the Coronavirus Aid, Relief, and Economic Security (CARES) Act to assist businesses and households affected by business shutdowns and other policies designed to limit the spread of the virus. The bill provided loans and grants for businesses. This funding came from the federal government but in some cases flowed through state and local governments. The analysis presented in this section does not consider these payments.

Figure 6 shows FY20 total estimated state and local government spending by category (net of user charges and other nontax revenue) for both households and businesses. A methodology developed by economists at the Federal Reserve Bank of Chicago was used to allocate expenditures in major categories (see Figure 6) between households and businesses to reflect the extent to which each group benefits from each type of expenditure. Certain expenditures, such as health and human services, were assigned entirely to households, while other categories, such as public safety and highway infrastructure costs (in the transportation category), were split evenly between businesses and households. The tax-to-benefit ratio was calculated by dividing business taxes in each state by estimated government expenditures benefiting businesses.

Since education spending is by far the largest category of net state and local expenditures, estimates of the tax-benefit ratio for businesses are sensitive to the allocation of education expenditures between businesses and households. While economic theory suggests that individuals are the primary beneficiaries of education because they can earn higher wages, business owners can benefit if an educated workforce generates higher returns to capital.

Figure 6. Net state and local government expenditures by category, FY20 (for both households and businesses)11



Source: Ernst & Young LLP estimates of tax-funded revenue based on data from the U.S. Census Bureau State and Local Government Finances and the National Association of State Budget Officers.

Returns to capital would increase if workers do not completely capture productivity gains through higher wages or if an educated workforce improves the productivity of capital (e.g., an educated or trained worker may know how to use machines in production more efficiently, resulting in fewer breakdowns or work stoppages). A review of the literature on this topic finds that a 1% increase in the share of workers with a college education in a city increases output by 0.5 to 0.6 percentage points.⁸ If businesses are able to capture some or all of the additional productivity from increased education, they are deriving benefits from this type of government spending.

Education can increase profits through indirect channels as well. For example, a more educated populace may result in reduced property crime, which may lower business costs and increase the return to capital. One estimate of the social returns of an educated workforce is that social benefits, in the form of lower government spending for police services and incarceration costs, are equal to 14% to 26% of the private return of education (higher wages) that accrues to individuals.⁹

Since the benefit of education to households and businesses is unknown, and the tax-to-benefit ratio is sensitive to this assumption, this analysis presents a range of estimates for the share of educational expenditures that benefit local businesses. The ratio is estimated assuming that 0%, 25% and 50% of in-state education spending benefits in-state businesses. ¹⁰

Figure 7 and Table 7 summarize the results using the three educational share assumptions for FY20. Assuming that education spending does not directly benefit local business, the ratio of business taxes paid to government services received by businesses is 3.29, indicating that businesses are taxed \$3.29 per dollar of government services they receive. The ratio drops to 1.67 when one-quarter of education spending is assumed to benefit business and 1.11 when half of education spending is assumed to benefit local business.

Using net government spending rather than gross spending to calculate tax-to-benefit ratios yields different results. Net government spending subtracts nontax revenue and estimates tax-funded state and local government spending. While tax revenue is the largest individual source of state and local government revenue, 54% of total revenue was derived from other sources in 2019, the last year for which complete data on state and local government finances is available from the U.S. Census Bureau. A state could maintain the same level of business taxation and gross spending from one year to the next, but its tax to benefit ratio would still differ if its level of nontax revenue changed.

New Jersey has the highest tax-benefit ratio of 5.7, assuming 0% of education benefited businesses. Thirteen additional states have tax-benefit ratios of 4.0 or higher, assuming educational expenditures do not benefit business. If educational expenditures are split evenly between households and businesses, the tax-benefit ratios are fairly similar across states.



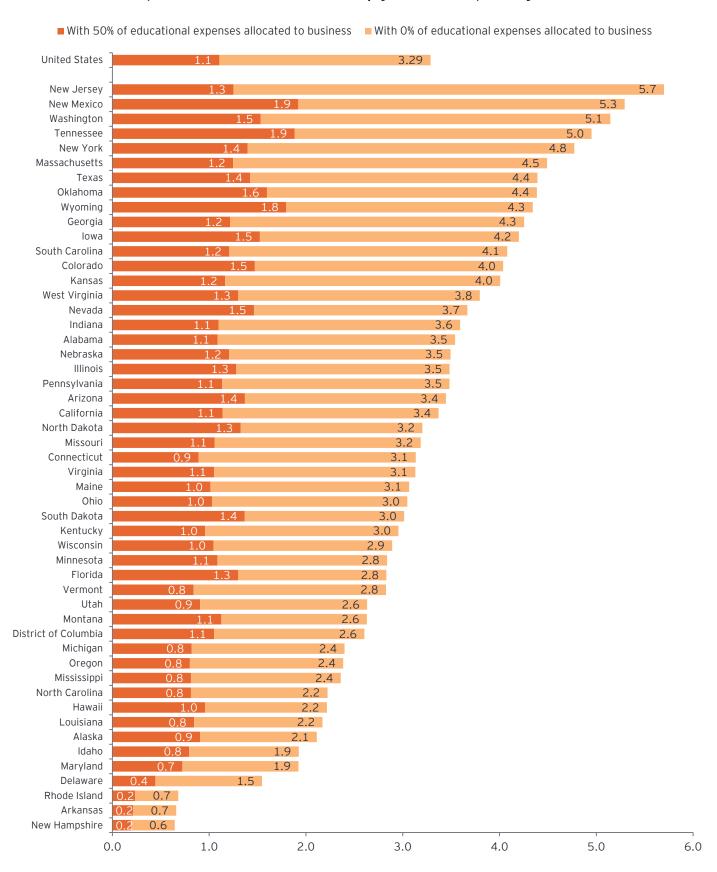
Table 7. Ratio of business taxes to government expenditures benefiting businesses, FY20 (\$ billions)

		0% of education	on spending	25% of educati	ion spending	50% of educat	ion spending
		benefiting	business	benefiting		benefiting	
		Total state and		Total state and		Total state and	
		local spending		local spending		local spending	
	State and local	benefiting	Tax-benefit	benefiting	Tax-benefit	benefiting	Tax-benefit
State	business taxes	business	ratio	business	ratio	business	ratio
Alabama	\$8.6	\$2.4	3.5	\$5.1	1.7	\$7.9	1.1
Alaska	2.2	1.0	2.1	1.7	1.3	2.4	0.9
Arizona	12.6	3.6	3.4	6.3	2.0	9.2	1.4
Arkansas	5.3	8.0	0.7	16.3	0.3	24.6	0.2
California	118.4	35.1	3.4	68.2	1.7	104.1	1.1
Colorado	15.5	3.8	4.0	7.0	2.2	10.5	1.5
Connecticut	10.4	3.3	3.1	7.4	1.4	11.7	0.9
Delaware	3.0	2.0	1.5	4.3	0.7	6.9	0.4
Florida	45.3	16.0	2.8	25.1	1.8	34.8	1.3
Georgia	19.2	4.5	4.3	10.1	1.9	15.8	1.2
Hawaii	4.3	1.9	2.2	3.2	1.4	4.5	1.0
Idaho	3.1	1.6	1.9	2.7	1.1	3.9	0.8
Illinois	37.4	10.7	3.5	20.0	1.9	29.2	1.3
Indiana	12.8	3.6	3.6	7.6	1.7	11.7	1.1
lowa	8.1	1.9	4.2	3.6	2.2	5.3	1.5
Kansas	6.7	1.7	4.0	3.7	1.8	5.8	1.2
Kentucky	8.7	2.9	3.0	6.0	1.5	9.1	1.0
Louisiana	10.1	4.6	2.2	8.2	1.2	11.9	0.8
Maine	4.8	1.6	3.1	3.1	1.6	4.7	1.0
Maryland	12.8	6.7	1.9	12.1	1.1	17.8	0.7
Massachusetts	19.0	4.2	4.5	9.6	2.0	15.2	1.2
Michigan	15.5	6.5	2.4	12.5	1.2	18.9	0.8
Minnesota	14.7	5.2	2.8	9.3	1.6	13.5	1.1
Mississippi	5.9	2.5	2.4	4.8	1.2	7.2	0.8
Missouri	9.7 2.4	3.0 0.9	3.2 2.6	6.1	1.6	9.1 2.1	1.1
Montana	5.2	1.5	2.6 3.5	1.5 2.9	1.6 1.8	4.3	1.1
Nebraska	5.2 8.1	2.2	3.5 3.7	3.8	2.1	4.3 5.6	1.2 1.5
Nevada New Hampshire	3.3	5.1	3. <i>1</i> 0.6	3.6 11.0	0.3	5.6 17.2	0.2
New Jersey	31.7	5.6	5.7	15.3	2.1	25.3	1.3
New Mexico	6.2	1.2	5.3	2.2	2.8	3.2	1.9
New York	88.5	18.5	4.8	40.6	2.2	63.4	1.4
North Carolina	16.6	7.5	2.2	13.9	1.2	20.5	0.8
North Dakota	4.2	1.3	3.2	2.2	1.9	3.2	1.3
Ohio	23.4	7.7	3.0	15.2	1.5	22.8	1.0
Oklahoma	7.9	1.8	4.4	3.4	2.4	5.0	1.6
Oregon	9.1	3.8	2.4	7.5	1.2	11.3	0.8
Pennsylvania	32.5	9.3	3.5	18.8	1.7	28.6	1.1
Rhode Island	2.7	3.9	0.7	7.4	0.4	11.4	0.2
South Carolina	9.6	2.3	4.1	5.1	1.9	7.9	1.2
South Dakota	2.3	0.8	3.0	1.2	1.9	1.7	1.4
Tennessee	13.7	2.8	5.0	5.0	2.7	7.3	1.9
Texas	82.9	18.9	4.4	38.2	2.2	58.3	1.4
Utah	6.1	2.3	2.6	4.4	1.4	6.7	0.9
Vermont	2.4	0.8	2.8	1.8	1.3	2.8	0.8
Virginia	20.1	6.4	3.1	12.6	1.6	19.1	1.1
Washington	23.5	4.6	5.1	9.8	2.4	15.3	1.5
West Virginia	3.8	1.0	3.8	1.9	2.0	2.9	1.3
Wisconsin	12.2	4.2	2.9	7.9	1.5	11.7	1.0
Wyoming	2.2	0.5	4.3	0.9	2.5	1.2	1.8
District of Columbia	4.8	1.8	2.6	3.1	1.6	4.6	1.1
United States	\$839.3	\$255.3	3.29	\$501.5	1.67	\$759.3	1.11

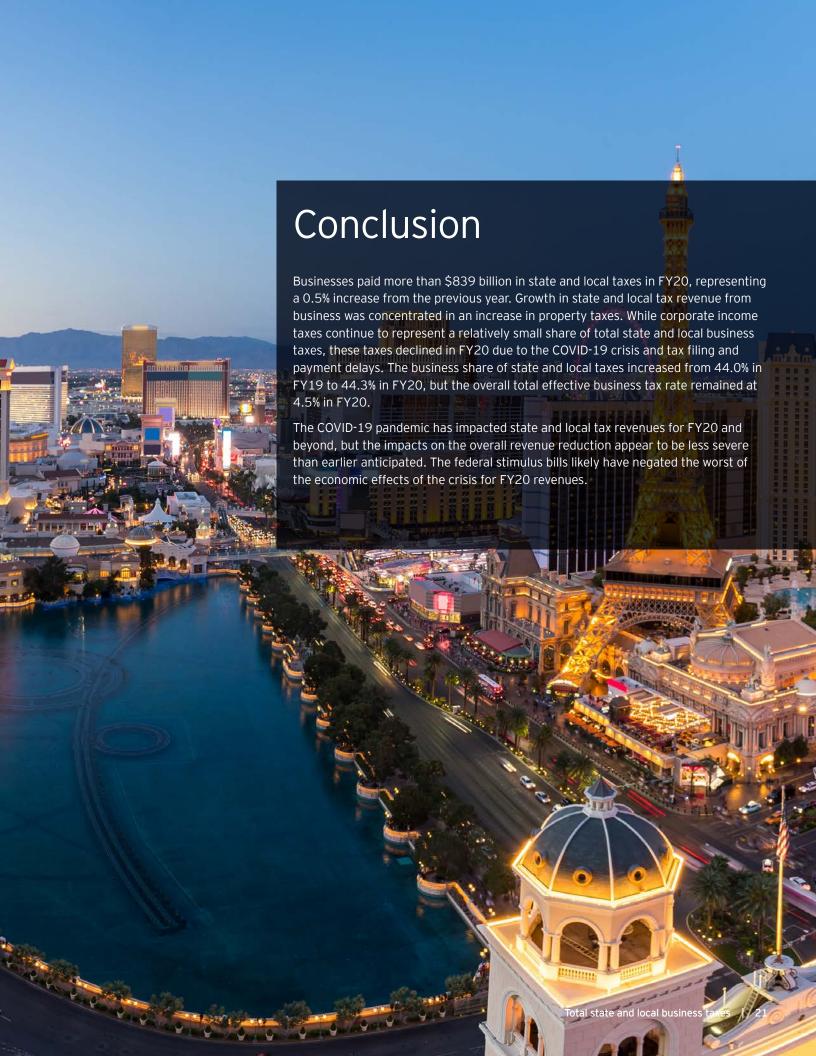
Note: amounts may not sum because of rounding.

Source: Ernst & Young LLP estimates based on data from the U.S. Census Bureau State and Local Government Finances and the National Association of State Budget Officers.

Figure 7. Business taxes per dollar of net government spending that benefits businesses, FY20 (values shown are equal to business taxes divided by government spending that benefits businesses)



Source: Ernst & Young LLP estimates based on data from the U.S. Census Bureau State and Local Government Finances and the National Association of State Budget Officers. Wyoming's state and local expenditures benefiting business were estimated using state financial reports.



Appendix



Appendix Table A1. Total state and local taxes, FY16-FY20 (\$ billions):

State and local taxes	2016	2017	2018	2019	2020
Total business taxes	\$725.5	\$745.1	\$789.2	\$834.9	\$839.3
Individual income taxes on nonbusiness income	331.4	338.0	374.5	394.2	372.8
Other taxes	585.7	606.8	636.5	667.0	681.1
Total state and local taxes	\$1,642.5	\$1,689.8	\$1,800.2	\$1,896.1	\$1,893.3

Composition of state and local taxes	2016	2017	2018	2019	2020
Total business taxes	44.2%	44.1%	43.8%	44.0%	44.3%
Individual income taxes on nonbusiness income	20.2%	20.0%	20.8%	20.8%	19.7%
Other taxes	35.7%	35.9%	35.4%	35.2%	36.0%
Total state and local taxes	100%	100%	100%	100%	100%

Note: Amounts may not sum because of rounding. FY19 tax estimates are revised from the COST FY19 study because of newly released data from the U.S. Census Bureau.

Source: Ernst & Young LLP estimates based on data from the U.S. Census Bureau State and Local Government Finances.

Appendix Table A2. Composition of state and local business taxes, FY16-FY20 (\$ billions)

Business tax	2016	2017	2018	2019	2020
Property tax on business property	\$273.1	\$285.9	\$300.0	\$317.0	\$329.2
General sales and use tax on inputs	153.9	158.6	167.4	176.6	180.1
Corporate net income	63.6	61.8	65.9	76.5	71.7
Unemployment comp.	43.1	40.1	38.1	36.2	34.8
Business license tax	33.9	37.3	38.5	41.1	41.5
Excise taxes on business inputs	42.7	43.7	49.0	51.4	52.6
Public utility tax	27.6	27.2	27.9	27.4	26.3
Individual income tax	44.9	46.0	51.3	53.4	50.4
Severance taxes	7.7	8.9	12.7	15.0	11.6
Insurance premium tax	21.3	21.9	23.5	24.6	25.7
Other business taxes	13.7	13.8	15.0	15.7	15.4
Total business taxes	\$725.5	\$745.1	\$789.2	\$834.9	\$839.3

Note: Amounts may not sum because of rounding. FY19 tax estimates are revised from the COST FY19 study because of newly released data from the U.S. Census Bureau.

Appendix Table A3. Composition of state and local business taxes by type, FY20

						I walls shall and		
				Corporate	Unemployment	Individual income tax on	License and	Total business
State	Property tax	Sales tax	Excise tax	income tax		business income	other taxes*	taxes
Alabama	28.1%	23.1%	22.1%	8.8%	2.4%	5.0%	10.5%	100.0%
Alaska	46.6%	_	7.5%	7.4%	5.6%	_	32.9%	100.0%
Arizona	40.1%	33.4%	10.0%	4.2%	3.3%	3.4%	5.6%	100.0%
Arkansas	29.4%	35.4%	12.1%	8.9%	3.2%	4.6%	6.4%	100.0%
California	34.7%	20.0%	11.6%	8.3%	5.0%	9.4%	11.0%	100.0%
Colorado	48.4%	22.6%	9.8%	4.5%	3.7%	6.5%	4.5%	100.0%
Connecticut	30.2%	17.1%	12.4%	19.8%	7.0%	11.1%	2.4%	100.0%
Delaware	11.9%		9.7%	8.3%	2.9%	6.4%	60.8%	100.0%
Florida	43.1%	27.8%	16.2%	5.5%	0.9%	-	6.5%	100.0%
Georgia	42.8%	23.4%	13.9%	5.1%	3.0%	7.1%	4.7%	100.0%
Hawaii	28.1%	33.6%	20.8%	1.0%	4.4%	6.7%	5.3%	100.0%
Idaho	37.7%	22.1%	10.7%	7.9%	4.1%	9.9%	7.7%	100.0%
Illinois	45.6%	14.7%	16.5%	9.3%	4.5%	4.9%	4.6%	100.0%
Indiana	43.5%	20.4%	14.1%	5.9%	3.8%	9.8%	2.4%	100.0%
lowa	41.1%	22.7%	9.8%	7.7%	5.2%	7.0%	6.6%	100.0%
Kansas	44.9%	27.7%	12.4%	6.4%	4.1%	-	4.5%	100.0%
Kentucky	32.4%	20.9%	19.9%	9.5%	4.1%	7.1%	6.1%	100.0%
Louisiana	32.7%	31.8%	14.2%	4.5%	2.0%	5.5%	9.3%	100.0%
Maine	66.3%	12.1%	6.4%	4.5%	2.5%	4.1%	4.1%	100.0%
Maryland	27.8%	16.0%	20.2%	10.3%	3.7%	14.3%	7.7%	100.0%
Massachusetts	38.3%	17.3%	6.9%	13.4%	9.6%	9.9%	4.6%	100.0%
Michigan	42.1%	21.7%	10.7%	5.3%	7.4%	5.5%	7.3%	100.0%
Minnesota	31.1%	21.7%	16.4%	10.9%	5.1%	7.4%	7.7%	100.0%
Mississippi	44.2%	23.4%	13.2%	7.2%	1.6%	3.5%	6.9%	100.0%
• •	39.7%	28.6%	8.6%	4.6%	3.6%	6.4%		100.0%
Missouri Montana	48.4%	20.0% -	12.7%	4.6% 7.8%	4.8%	7.5%	8.4% 18.8%	100.0%
	46.4% 47.2%		7.2%			7.5% 7.7%	6.9%	
Nebraska		22.1%		7.5%	1.4%	7.7%		100.0%
Nevada	18.5%	34.5%	16.5%	2.8%	8.4%		19.3%	100.0%
New Hampshire	49.5%		13.5%	23.7%	1.1%	0.5%	11.8%	100.0%
New Jersey	46.9%	15.2%	9.3%	11.2%	6.7%	6.3%	4.4%	100.0%
New Mexico	16.7%	43.4%	8.0%	1.5%	2.1%	1.8%	26.5%	100.0%
New York	44.5%	16.4%	9.6%	12.5%	2.6%	10.5%	3.9%	100.0%
North Carolina	33.9%	29.2%	12.3%	4.0%	3.1%	7.5%	10.0%	100.0%
North Dakota	19.6%	15.3%	6.5%	1.9%	3.0%	1.3%	52.4%	100.0%
Ohio	34.0%	22.9%	14.6%	9.7%	4.6%	6.4%	7.9%	100.0%
Oklahoma	25.6%	31.4%	9.5%	3.8%	3.1%	8.2%	18.4%	100.0%
Oregon	37.7%	_	12.5%	15.6%	10.4%	10.0%	13.9%	100.0%
Pennsylvania	36.6%	16.4%	13.1%	9.4%	8.7%	7.5%	8.4%	100.0%
Rhode Island	44.4%	15.8%	15.0%	8.0%	8.1%	4.3%	4.3%	100.0%
South Carolina	46.8%	17.7%	11.0%	5.3%	2.9%	5.1%	11.2%	100.0%
South Dakota	35.1%	40.5%	11.2%	1.6%	1.9%	-	9.7%	100.0%
Tennessee -	25.1%	35.1%	15.6%	11.0%	1.9%	0.1%	11.2%	100.0%
Texas	45.9%	27.2%	11.3%	5.1%	2.8%	-	7.8%	100.0%
Utah	38.8%	25.3%	16.0%	5.9%	2.6%	6.5%	4.8%	100.0%
Vermont	58.0%	9.6%	14.8%	6.0%	4.5%	3.9%	3.2%	100.0%
Virginia	48.0%	14.5%	14.7%	6.8%	1.8%	5.6%	8.5%	100.0%
Washington	25.4%	27.5%	16.2%	19.0%	4.7%	_	7.3%	100.0%
West Virginia	34.4%	16.7%	19.2%	4.0%	5.1%	5.0%	15.6%	100.0%
Wisconsin	38.0%	21.6%	10.4%	11.8%	4.7%	6.4%	7.0%	100.0%
Wyoming	40.3%	22.8%	5.2%	_	3.4%	_	28.4%	100.0%
District of Columbia	50.7%	10.6%	7.2%	15.1%	3.3%	8.2%	4.9%	100.0%
United States	39.2%	21.5%	12.5%	8.5%	4.1%	6.0%	8.2%	100.0%

^{*&}quot;Corporate income" and "individual income tax on business income" include gross receipts taxes levied in Nevada, Ohio, Texas, and Washington and the business enterprise tax in New Hampshire. "Excise taxes" include insurance premiums and public utilities. "Other taxes" include death and gift taxes, documentary and stock transfer taxes, severance taxes and local gross receipts taxes. Certain Ohio localities impose a net profits tax, which is included in the "Corporate income" column. The small amount of corporate profits taxes at the local level in Michigan is included in "other taxes."

Note: amounts may not sum because of rounding. "-" indicates 0; "0.0%" indicates less than 0.05%.

Appendix Table A4. Composition of total state and local taxes by type, FY20

State	Property tax	Sales tax	Excise tax	Corporate income tax	Unemployment insurance tax	Individual income tax	License and other taxes*	Total business taxes
Alabama	16.6%	29.9%	17.9%	4.0%	1.1%	23.4%	7.1%	100.0%
Alaska	47.9%	8.2%	12.2%	4.8%	3.6%		23.3%	100.0%
Arizona	28.3%	41.8%	7.8%	1.7%	1.4%	15.0%	4.0%	100.0%
Arkansas	18.5%	38.3%	11.6%	3.6%	1.3%	22.3%	4.4%	100.0%
California	27.2%	21.4%	9.0%	3.4%	2.1%	29.6%	7.3%	100.0%
Colorado	34.4%	25.2%	9.4%	2.1%	1.7%	22.8%	4.4%	100.0%
Connecticut	37.8%	14.8%	9.3%	6.7%	2.3%	26.4%	2.8%	100.0%
Delaware	16.7%	_	10.3%	4.3%	1.5%	28.9%	38.3%	100.0%
Florida	38.1%	34.7%	14.4%	2.9%	0.5%	_	9.4%	100.0%
Georgia	32.3%	23.1%	11.1%	2.2%	1.3%	26.5%	3.4%	100.0%
Hawaii	19.8%	36.5%	14.0%	0.4%	1.7%	21.7%	6.0%	100.0%
Idaho	27.4%	27.6%	8.8%	3.2%	1.7%	25.0%	6.4%	100.0%
Illinois	35.6%	17.5%	14.6%	4.1%	2.0%	21.3%	4.8%	100.0%
Indiana	25.2%	25.3%	13.8%	2.3%	1.5%	28.7%	3.3%	100.0%
lowa	32.5%	22.0%	9.9%	3.5%	2.3%	22.9%	6.9%	100.0%
Kansas	31.7%	29.1%	9.2%	2.8%	1.8%	21.6%	3.8%	100.0%
Kentucky	20.2%	21.2%	16.2%	4.2%	1.8%	32.3%	4.1%	100.0%
Louisiana	21.3%	37.9%	13.6%	2.2%	1.0%	19.0%	5.1%	100.0%
Maine	46.5%	18.0%	8.0%	2.3%	1.3%	19.9%	4.1%	100.0%
Maryland	24.4%	11.8%	13.3%	3.2%	1.1%	39.7%	6.5%	100.0%
Massachusetts	34.3%	13.0%	6.0%	4.8%	3.5%	33.2%	5.1%	100.0%
Michigan	36.0%	21.0%	10.1%	1.9%	2.6%	22.0%	6.4%	100.0%
•		21.0% 17.9%	13.7%			22.0%		
Minnesota	26.6%			4.3%	2.0%		6.6%	100.0%
Mississippi	28.7%	32.4%	13.4%	3.6%	0.8%	15.8%	5.2%	100.0%
Missouri	28.9%	28.8%	7.8%	1.8%	1.4%	26.0%	5.3%	100.0%
Montana	38.2%	- 22.0%	14.3%	3.8%	2.4%	27.5%	13.8%	100.0%
Nebraska	35.4%	23.9%	6.8%	3.5%	0.7%	22.2%	7.6%	100.0%
Nevada	21.1%	39.6%	20.5%	1.5%	4.5%		12.9%	100.0%
New Hampshire	62.7%	-	14.2%	11.3%	0.5%	1.8%	9.4%	100.0%
New Jersey	44.1%	15.2%	7.4%	4.9%	2.9%	21.2%	4.2%	100.0%
New Mexico	18.1%	42.0%	8.8%	0.9%	1.2%	11.5%	17.4%	100.0%
New York	31.2%	16.8%	7.4%	5.4%	1.1%	33.0%	5.0%	100.0%
North Carolina	25.7%	26.5%	10.8%	1.5%	1.1%	28.0%	6.4%	100.0%
North Dakota	19.7%	22.4%	8.8%	1.4%	2.1%	6.3%	39.2%	100.0%
Ohio	28.9%	22.9%	13.0%	3.9%	1.9%	24.6%	4.8%	100.0%
Oklahoma	20.8%	31.7%	10.9%	1.8%	1.5%	20.4%	12.9%	100.0%
Oregon	32.4%	-	9.7%	6.1%	4.1%	37.6%	10.0%	100.0%
Pennsylvania	28.7%	17.0%	13.9%	4.1%	3.8%	24.1%	8.4%	100.0%
Rhode Island	41.9%	17.6%	11.5%	3.2%	3.3%	18.9%	3.6%	100.0%
South Carolina	32.2%	21.6%	10.5%	2.4%	1.3%	24.0%	7.9%	100.0%
South Dakota	34.0%	40.9%	13.5%	1.0%	1.1%	_	9.5%	100.0%
Tennessee	22.5%	45.5%	16.1%	5.7%	1.0%	0.2%	8.9%	100.0%
Texas	45.8%	30.7%	12.5%	3.0%	1.7%	_	6.3%	100.0%
Utah	26.7%	28.2%	12.2%	2.4%	1.1%	25.3%	4.0%	100.0%
Vermont	44.4%	10.3%	17.1%	3.3%	2.4%	17.6%	4.9%	100.0%
Virginia	32.3%	15.1%	11.5%	2.8%	0.8%	31.1%	6.5%	100.0%
Washington	27.6%	36.4%	14.1%	9.2%	2.3%	_	10.4%	100.0%
West Virginia	22.3%	18.5%	19.5%	1.9%	2.5%	25.0%	10.3%	100.0%
Wisconsin	31.5%	20.1%	9.5%	4.6%	1.8%	27.1%	5.3%	100.0%
Wyoming	38.7%	27.2%	7.2%	-	2.3%	-	24.6%	100.0%
District of Columbia	34.0%	14.2%	5.0%	8.5%	1.9%	27.7%	8.7%	100.0%
United States	31.6%	22.8%	11.0%	3.8%	1.8%	22.4%	6.7%	100.0%

^{*}Taxes in the "License and other taxes" column include death and gift taxes, documentary and stock transfer taxes, severance taxes and local gross receipts taxes.

Note: amounts may not sum because of rounding. "-" indicates 0; "0.0%" indicates less than 0.05%.

Appendix Table A5. Comparison of the COVID-19 pandemic impact on state tax collections, FY19Q4-FY21Q1 (\$ billions)

Tax category	FY19Q4	FY20Q4	% change
General sales tax	\$117	\$104	-10.9%
Corporate income tax	29	16	-45.1%
Personal income tax	155	102	-34.2%

Composition of state and local taxes	FY19Q4 + FY20Q1	FY20Q4 + FY21Q1	% change
General sales tax	\$225	\$214	-4.9%
Corporate income tax	44	44	-1.5%
Personal income tax	256	244	-4.7%

Source: Ernst & Young LLP calculations based on data from the U.S. Census Bureau Quarterly Summary of State & Local Revenue.

Endnotes

- 1. States that follow a different fiscal year are Alabama (ends September 30), Michigan (ends September 30), New York (ends March 31) and Texas (ends August 31). The data presented in this study is for each state's fiscal year.
- The EY sales tax model used to estimate business share was updated for all 50 states in FY17. Certain prior year estimates from FY14 to FY17 were restated to reflect updated business sales tax estimates. Prior year estimates for sales taxes paid by businesses were updated and are shown in the historical appendix tables. See Andrew Phillips and Muath Ibaid, The Impact of Imposing Sales Taxes on Business Inputs, prepared for the State Tax Research Institute and Council On State Taxation, Ernst & Young LLP, May 2019.
- The general methodology used to estimate state and local business taxes is described in detail in the Appendix of the EY/COST FY05 50-state business tax study published in March 2006 (available at cost.org). Note that business tax estimates for prior years have been revised from those published in earlier editions of this study because of the use of newly released U.S. Census Bureau data and refinements to the estimation of individual income taxes. All references to business taxes in prior fiscal years refer to the updated estimates included in this study, rather than the previously published estimates.
- Andrew Phillips and Muath Ibaid. The Impact of Imposing Sales Taxes on Business Inputs. prepared for the State Tax Research Institute and Council On State Taxation, Ernst & Young LLP, May 2019.
- The report uses data from the U.S. Census Bureau State and Local Government Finances survey. Assessing tax revenue trends before the start of the COVID-19 pandemic in March 2020 uses the U.S. Census Bureau Quarterly Summary of State and Local
- Robert Cline, Andrew Phillips, Joo Mi Kim and Tom Neubig, "The Economic Incidence of Additional State Business Taxes," State Tax Notes, January 11, 2010.
- Richard H. Mattoon and William A. Testa, "How Closely Do Business Taxes Conform to the Benefits Principle?" presentation at the Future State Business Tax Reforms: Perspectives from the Business, Government and Academic Communities conference, Federal Reserve Bank of Chicago (September 17, 2007). The authors distributed state and local government expenditures between businesses and households. Services benefiting businesses included shares of expenditures for transportation, water and sewer infrastructure, police and fire protection, general government "overhead" (e.g., legislative, administrative and judicial services), interest and regulatory activities. The methodology used is described in detail in William H. Oakland and William A. Testa, "State-local business taxation and the benefits principle," Economic Perspectives, January/February 1996. The authors also note that selective excise taxes, such as the severance tax, impact a small portion of businesses and could be removed from the business tax numerator to provide a measure of the tax-to-benefit ratio generally applicable to most firms. Ernst & Young LLP added in expenditure categories to the analysis not included in the 2007 data.
- Enrico Moretti, "Workers' Education, Spillovers, and Productivity: Evidence from Plant-Level Production Functions," American Economic Review, June 2004.
- An example of work related to the social benefits of education is Lance Lochner and Enrico Moretti, "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports," National Bureau of Economic Research Working Paper 8605, November 2001.
- 10. The tax-benefit ratios shown in this study were constructed in line with the general methodology used by Mattoon and Testa that allocates expenditures, net of user charges and federal transfers, to businesses and households. Like Mattoon and Testa, Ernst & Young LLP identified major categories of state and local spending. Using data from the U.S. Census Bureau's 2017 State and Local Government Finances, expenditures, charges, federal transfers and other category-specific nontax revenue were assigned to each category. These items were used to calculate the net expenditures for each category. The net expenditures were then allocated to businesses and households in an identical manner to the Mattoon and Testa allocation for all categories included in their analysis. For new categories, Ernst & Young LLP followed Mattoon and Testa's general principles in allocating net expenditures.
- 11. Administration and insurance share is negative because nontax revenue from investments, interest and other sources exceed total outlays.

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