



Ohio Tax Benchmarking Analysis

Prepared on behalf of the Ohio Chamber
of Commerce Research Foundation

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Building a better
working world

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Executive summary

EY was commissioned by the Ohio Chamber of Commerce Research Foundation to analyze Ohio's tax climate as compared with peer locations in other states.

Ohio's tax structure is characterized by local tax burdens that are generally higher than the selected peer states; however, the Ohio state-level tax system is generally competitive. Combined state and local taxes in Ohio are \$174 higher on a per capita basis compared to the average of the selected peer states. For corporations, Ohio's state tax system provides a generally competitive tax environment due to an average sales and use tax burden below peer states and the reliance on a low-rate gross receipts tax in-lieu of a traditional corporate income tax on apportioned corporate net income.

Also note that in July of 2023, Ohio passed tax reform legislation, referred to as HB 33 in this report. HB 33 included changes to Ohio's individual income tax, the commercial activity tax (CAT), and other changes. This report presents certain estimates pre- and post-HB 33. For the purposes of the tax burdens calculated in this study, an increase in the exemption amount for the CAT is the most significant policy change included in HB 33. The changes in the CAT result in a reduction in aggregate state tax burden of an estimated \$238 million in FY 2024 and \$460 million in FY 2025.¹

Below are key findings of the analysis:

Overall level of state and local business and household taxes. When measured in terms of aggregate tax collections from both businesses and households as a share of Gross State Product (GSP), the level of tax burden is slightly higher in Ohio than the average of the selected peer states. This finding holds both before and after the tax changes associated with HB 33. Specifically:

- ▶ **Ohio's state and local tax collections are in the middle range of the peer states.** As a share of GSP, Ohio's FY 2021 collections from businesses and households were 9.91% pre-HB 33, which ranked 4th of the seven states analyzed. Post-HB 33, the share drops to 9.75%, though Ohio maintains the 4th rank. Of the peer states, Minnesota had the highest burden as a share of GSP and Georgia the lowest.
- ▶ **The overall level of Ohio state taxes is competitive.** At the state-level, Ohio's overall level of taxes on businesses and households is relatively competitive against peer states, with Ohio state-level taxes comprising a GSP share of 5.47% pre-HB 33. Only Georgia (4.7% of GSP) and Texas (3.8% of GSP) have lower relative state tax burdens. HB 33 reduced Ohio's estimated overall state-level taxes on businesses and households as a share of GSP to 5.31%, which maintains Ohio's position at 3rd lowest for state taxes.
- ▶ **Ohio local taxes are higher than the peer state average.** Ohio has the third highest local property tax and second highest overall local tax burden. Of the peer states, only Texas (4.1%) and Michigan (3.0%) have a higher property tax as a share of GSP than Ohio (2.9%).
- ▶ **Ohio is one of the only states with local business entity taxation.** Besides Michigan, none of the other peer states have a local business entity tax, which, as discussed later in the report, can cause administrative complexities for businesses.

Effective tax rates (ETRs) on business investment. An alternative method of gauging the tax competitiveness of a location is measuring the tax burden that would be borne by a hypothetical firm's new business investment over its life. To measure this burden, EY calculated the taxes paid by a firm over a 30-year capital investment schedule in seven Ohio counties, six peer location counties and across 10 industries. Similar to the previous analysis, the state-level tax burden in Ohio is in line with that of peer locations, while local ETRs are above peer location averages.

- ▶ **Ohio businesses face a combined state and local tax burden that is generally in line with that of the peer locations.** Based on EY's Business Tax Competitiveness Model (BTCM), Ohio businesses are taxed at an average ETR of 13.7% (post-HB 33) which is above that of the peer locations at 12.5%. For Ohio, these results are driven by above-average local property taxes and local business income taxes not levied in many of the other peer locations.

¹ Legislative Budget Office of LSC. "Companion Document," Main Operating Budget Bill (FY2024-FY2025), House Bill 33 - 135th General Assembly, January 24, 2024 (p.1071) <https://www.lsc.ohio.gov/assets/legislation/135/hb33/en0/files/hb33-comparison-document-as-enacted-135th-general-assembly.pdf>

- ▶ **When analyzing the results by industry, Ohio's combined state and local tax burden exceeds that of the peer locations by at least 1.5 percentage points for six of the ten industries.** This is primarily driven by higher-than-average local taxes.
- ▶ **In terms of local ETRs, the top-six counties with the highest burden were all in Ohio.** Out of the thirteen total counties analyzed, Montgomery County (Dayton), Cuyahoga County (Cleveland), Lucas County (Toledo), Hamilton County (Cincinnati), Franklin County (Columbus), and Summit County (Akron) had the highest local ETRs (in order of highest ETR).

Compliance survey findings. In addition to the analyses of tax burden described above, EY surveyed 52 firms in Ohio to better understand the time and out of pocket costs faced by Ohio businesses to comply with local taxes. Businesses had many suggestions for changes that would reduce Ohio local compliance costs.

- ▶ **Ohio's municipal income tax system has been identified as especially burdensome in terms of compliance costs.** Ohio's large number of taxing jurisdictions causes complications for the withholding and crediting of income taxes for employees that work and live in separate taxing jurisdictions. Additionally, among peer locations, only Wayne County (Detroit), Michigan, taxes local corporate income. However, Michigan has only 24 local jurisdictions that tax corporate income², in contrast to Ohio, where there are hundreds of local jurisdictions that impose a tax on corporate income. This represents an additional compliance cost for Ohio businesses and these costs have a disproportionate burden for smaller businesses.
- ▶ **The time and money spent filing local taxes varies significantly by firm.** The time cost estimates range from 1 hours (equivalent to \$39) to 600 hours (equivalent to \$23,610) which reflects the estimated time spent complying and the average salary for accounting, tax preparation or bookkeeping in Ohio.
- ▶ **The cost of compliance with Ohio local tax increases with the number of employees due to withholding compliance.** The average cost per business ranges from \$4,022 for businesses with 1-19 employees to \$15,308 for businesses with 100+ employees.

² Citizens Research Council of Michigan. Outline of the Michigan Tax System. Citizens Research Council of Michigan, 2023.

1. Introduction and overview

EY was commissioned by the Ohio Chamber of Commerce Research Foundation to analyze Ohio's state and local tax climate in seven Ohio counties compared with peer location counties in other states. This report presents the findings of that analysis in four sections.

In the first section of the report, the background for the relevant taxes in the Ohio counties and the peer locations are discussed.

The second section of the analysis compares the total amount of taxes collected by state and local governments in the peer states and Ohio. The section looks at different types of taxes as a percentage of the GSP, including analysis of Ohio pre- and post-HB 33.³ The purpose of this section is to give a general idea of the overall tax burden without distinguishing between taxes paid by businesses and households, or different types of businesses or households. While this analysis provides a broad overview of the tax levels in each peer state, it does not explain why there are differences in tax burdens among counties or types of taxes.

The third section evaluates how competitive Ohio's state and local tax system is for different types of businesses in various industries. It uses a financial modeling approach to illustrate how state and local taxes affect the return on investment for a new business venture. The analysis considers Ohio both pre- and post-HB 33. This approach is similar to what a sophisticated business would use when deciding where to establish a new facility.

In sections two and three of the report, Ohio taxes (state, local and combined state and local) are presented both pre- and post-HB 33. Future business decisions will only be impacted by the new tax system, and this analysis can help build understanding of the relative impact of HB 33.

The fourth section provides additional insight to the specific local compliance costs a business might face when doing business in Ohio, through a survey of Ohio businesses. Compliance cost considers the additional out of pocket costs and monetized time spent complying with Ohio's tax system. This section will focus on compliance costs associated with local taxes. Any changes due to HB 33 will not be captured in this analysis, as the survey took place before HB 33 was enacted.

1.1. List of peer locations and state and local tax levies

The counties selected for the Ohio analysis include Franklin, Cuyahoga, Hamilton, Lucas, Summit, Montgomery, and Butler. The respective cities chosen in these counties are Columbus, Cleveland, Cincinnati, Toledo, Akron, Dayton, and Hamilton. The six peer locations are the largest counties found within the respective metro areas – Austin (Travis County), TX; Minneapolis (Hennepin County), MN; Raleigh (Wake County), NC; Indianapolis (Marion County), IN; Atlanta (Fulton County), GA; Detroit (Wayne County), MI and were selected in consultation with the Ohio Chamber of Commerce Research Foundation.

1.2. Major state and local tax characteristics

This section of the report examines the key taxes imposed by Ohio and the peer locations at both the state and local levels. While the list is not exhaustive, it primarily highlights taxes applicable to a majority of businesses. Section 2 of the report encompasses all state and local taxes, including those not covered in this section, such as severance taxes, various excise taxes, estate taxes, and numerous others. Section 3 of the report estimates ETRs for corporate businesses, focusing exclusively on taxes that apply to such entities. This encompasses all the taxes discussed in this section, excluding personal income taxes or pass-through taxes, which are relevant only to non-corporate business.

Ohio's tax system includes a typical mix of major taxes by tax type, which are presented in Table 1 in comparison with the peer locations. Both state, local, and combined state and local taxes are presented and compared throughout this analysis given the state-to-state differences in the way governments are structured, services that are provided, and taxes are collected. Below is a list of relevant taxes that are featured in either the Section 2 or Section 3 analyses.

³ In July 2023, Ohio underwent a tax reform effort through Budget Bill H.B. 33. The tax reform included numerous policy changes specific to Ohio's individual income tax, sales and use taxes, and the CAT. For the purposes of the tax burdens calculated in this study, the change to the CAT is the most significant policy change. The exemption amount in the CAT will increase to \$3 million in 2024 and \$6 million in 2025.

1.3. Business entity taxes

All of the other peer states, except Texas, rely on a traditional corporate income tax to tax business entities (though North Carolina is phasing out its corporate income tax by 2030). All of the peer states with a corporate income tax determine corporate income subject to tax in the state using single sales-factor apportionment, which sets the share of a taxpayer's nationwide income subject to tax in a state equal to the share of the taxpayer's nationwide sales that occurred in the state. Both the tax rate and the apportionment of the tax base attributable to a specific state are important determinants of business tax liability.

Of the peer states, Minnesota has the highest state-level top statutory marginal tax rate on corporate net income of 9.8%, followed by Michigan at 6.0% and Georgia at 5.75%. Ohio utilizes the CAT, a gross receipts tax, which is imposed at a rate of 0.26% on gross receipts allocated based on sales destination. As the peer states tax corporate net profit and Ohio taxes gross receipts for the business entity tax, it is not possible to directly compare the statutory tax rates. Entity level tax burden under a corporate net profit and gross receipts tax regime will vary depending on specific entity attributes.

Each of the peer states with a business entity tax uses a single sales-factor apportionment, which is functionally similar to the siting approach of the CAT, which taxes Ohio sales. Single sales-factor apportionment is typically viewed as a competitive feature of state business taxes.

In addition to state-level business taxes, local business income taxes are levied within each Ohio county, as well as within Wayne County (Detroit), Michigan. Local income tax rates within the Ohio counties vary between 1.8% and 2.5%, with an average of 2.3%. This average is slightly above the local business income tax rate in Wayne County (Detroit) of 2.0%.

1.4. Personal income & passthrough entity taxes

Each peer state, with the exception of Texas, taxes non-corporate business and personal income. In 2023, Ohio's top marginal tax rate for personal income is 3.75% on taxable income above \$115,300. Beginning in 2024, HB 33 will eliminate the top bracket reducing the top marginal rate from 3.75% to 3.5%. Ohio has the fifth highest top marginal rate among the peer states, though Minnesota's top rate of 9.85% does not begin until taxpayers reach taxable income of \$183,340.

While Ohio's state income tax rates are relatively low compared to peer states, the state also provides a Business Income Deduction (BID) for pass-through and sole proprietor businesses. The BID permits a deduction of up to \$250,000 in adjusted gross income (AGI), depending on the taxpayer's filing status. This deduction serves to further decrease the ETR for individuals with pass-through income. In Ohio, eligible businesses can elect taxation under the pass-through entity income tax, which imposes a 3% tax rate on business net income.

Of the peer locations, only the Ohio counties (i.e., municipalities), Marion County (Indianapolis), and Wayne County (Detroit) tax personal income at the local level.

1.5. Sales and use taxes

A key consideration for a business is the application of the sales and use taxes upon operating inputs. Generally, states exempt a wide variety of capital investment, intermediate inputs, and business services from the sales and use taxes, although the specific treatment can widely vary. Total sales and use taxes at the state and local level are considered in Section 2 of the report, while for the purposes of the Section 3 model, the following categories are included in the tax modeling for each state:

- ▶ Business services
- ▶ Computer equipment
- ▶ Data and telecommunications services
- ▶ Manufacturing equipment
- ▶ Machinery repairs

- ▶ Materials consumed in the manufacturing process
- ▶ Utilities (gas, electric, water)

Ohio's 5.75% state sales and use taxes are levied at a rate that is relatively close to the 5.81% average state sales and use tax rate of the peer states. At the local level, Cuyahoga County's 2.25% local sales and use tax rate is 3rd highest among the peer locations, with two peer states having no local sales and use tax. While the average Ohio location state and local sales and use tax rate is roughly in line with the peer locations (7.4% combined state and local rate compared to 7.7% for the peer locations), Ohio's 86 services subject to tax is well above the 61 average number of services subject to sales and use taxes across all US states.⁴ For example, building maintenance and janitorial services (including extermination and window cleaning) are taxable in Ohio but exempt in all other peer states except Minnesota and Texas.⁵

1.6. Property taxes

Ohio's average real property tax rate among the selected counties is 3.8%, which is higher than the peer location average of 2.2%. Cuyahoga County has the highest gross effective rate at 4.4%, followed by Montgomery County 4.1%, and Lucas County 4.0%. All of the Ohio counties analyzed are above the peer location average of 2.2%. However, Ohio has not taxed personal property (machinery, equipment, vehicles, etc.) for any of the industries analyzed in the Section 3 analysis since 2010, while each of the other peer locations does tax business personal property.⁶

Property tax rates are set by local jurisdictions in each state. To account for this, EY used the assessment ratio and tax rates of each county where the hypothetical firm is located for the Section 3 analysis, while Section 2 considers total state and local property taxes collected in Ohio and the peer states. The specific property types included in the Section 3 analysis are:

- ▶ Commercial Structures
- ▶ Furniture & Fixtures
- ▶ Industrial Structures
- ▶ Land
- ▶ Machinery & Equipment
- ▶ Motor Vehicles
- ▶ Office Equipment and computers

1.7. Unemployment insurance taxes

State unemployment insurance tax rates and the taxable wage base of employees is shown below in Table 1. The rates shown are for new employers in each state and range from 1.0% to 2.7%. The state with the highest maximum tax rate is Ohio at 2.7%.

The following table provides an overview of key tax parameters.

⁴ 2017 Federation of Tax administrators survey, see <https://taxadmin.memberclicks.net/sales-taxation-of-services>

⁵ There have also been important legislative updates since the 2017 survey of taxable services was conducted. In 2021, Ohio joined the rest of the states in the peer locations in repealing its unique tax on employment and employment placement services.

⁶ Ohio does tax certain types of personal property for utilities, though utilities and other regulated industries are not considered for this analysis. For more information, see <https://tax.ohio.gov/help-center/faqs/personal-property/personal-property>

Table 1. Comparison of select key tax characteristics of Ohio and peer locations

State level		OH	OH	OH	OH	OH	OH	OH	OH	GA	IN	MI	MN	NC	TX
Business entity tax ⁷	Top rate ⁸	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	5.75%	4.90%	6.00%	9.80%	2.50%	N/A
	Apportionment	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	single-factor sales	N/A				
Personal Income Tax ⁹	Top marginal rate (non-business income for OH)	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	5.75%	3.23%	4.25%	9.85%	4.75%	N/A
	Top income bracket (single filer)	\$115,300	\$115,300	\$115,300	\$115,300	\$115,300	\$115,300	\$115,300	\$115,300	\$7,000	Flat	Flat	\$183,340	Flat	N/A
Sales & use tax	Top rate	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	4.00%	7.00%	6.00%	6.88%	4.75%	6.25%
Franchise tax	Top rate	0%	0%	0%	0%	0%	0%	0%	0%	\$5k max	0%	0%	0%	0.15%	0.75%
Unemployment insurance tax ¹⁰	Tax rate	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.64%	2.50%	2.70%	1.64%	1.00%	2.70%
	Taxable wage base	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,500	\$9,500	\$9,500	\$35,000	\$26,000	\$9,000
County level		Franklin	Cuyahoga	Hamilton	Lucas	Summit	Montgomery	Butler	Fulton	Marion	Wayne	Hennepin	Wake	Travis	
Sales & use tax	Total local rate	1.75%	2.25%	2.05%	2.00%	1.00%	1.75%	0.75%	4.90%	0.00%	0.00%	1.65%	2.50%	2.00%	
Property tax	Real property ETR ¹¹	4.03%	4.44%	3.81%	4.04%	3.45%	4.11%	2.95%	1.62%	3.00%	3.39%	2.53%	1.01%	1.79%	
	Personal property commercial ETR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.62%	3.00%	2.23%	0.00%	1.01%	1.79%	
	Personal property industrial ETR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.62%	3.00%	2.81%	0.00%	1.01%	1.79%	
	Is personal property taxable? ¹²	No	No	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes
City level		Columbus	Cleveland	Cincinnati	Toledo	Akron	Dayton	Hamilton	Atlanta	Indianapolis	Detroit	Minneapolis	Raleigh	Austin	
Local business	City rate	2.50%	2.50%	1.80%	2.50%	2.50%	2.50%	2.00%	0.00%	0.00%	2.00% ¹³	0.00%	0.00%	0.00%	

⁷ Does not include tax parameters for pass-through entities, nor does it include local income taxes.

⁸ Income exclusion threshold for the Ohio CAT increases to \$3 million in 2024 and \$6 million in 2025.

⁹ Tax rates and brackets are for 2023. In 2024, Ohio will eliminate the top bracket reducing the top marginal rate from 3.75% to 3.5% on income above \$100,000. In Ohio, passthrough entity business income is taxed at a 3% marginal rate.

¹⁰ Unemployment insurance tax rate for new employers is shown here.

¹¹ Ohio property tax rates are statutory gross rates times the assessment ratio of 35%. Tax reduction factors are not shown but applied in the Section 3 model.

¹² Ohio does tax the tangible personal property of public utilities, but these are not included in this study.

¹³ Personal income tax rate is 2.4% for Detroit residents and 1.2% for non-residents. For more information, see https://www.michigan.gov/taxes/-/media/Project/Websites/taxes/Forms/2022/2022-City-Withholding/5469_ty2022.pdf?rev=c65501d2c5db424e81640f0f4de06098&hash=EB44E8ABBC7086595727EAAA95E1C58C

2. Ohio economic and tax profiles

2.1. Ohio economy and peer states

This section compares the profile of the Ohio economy to the peer states using Bureau of Economic Analysis (BEA) and US Census data.

Figure 1 shows Ohio's GSP per capita relative to that of the peer states. Ohio ranks third highest among the peer states with \$55,980 in per capita GSP, which is slightly below the peer average of \$56,911. Minnesota ranks highest at \$65,515 and Michigan ranks lowest at \$50,990.

Figure 1. GSP per capita, FY 2021



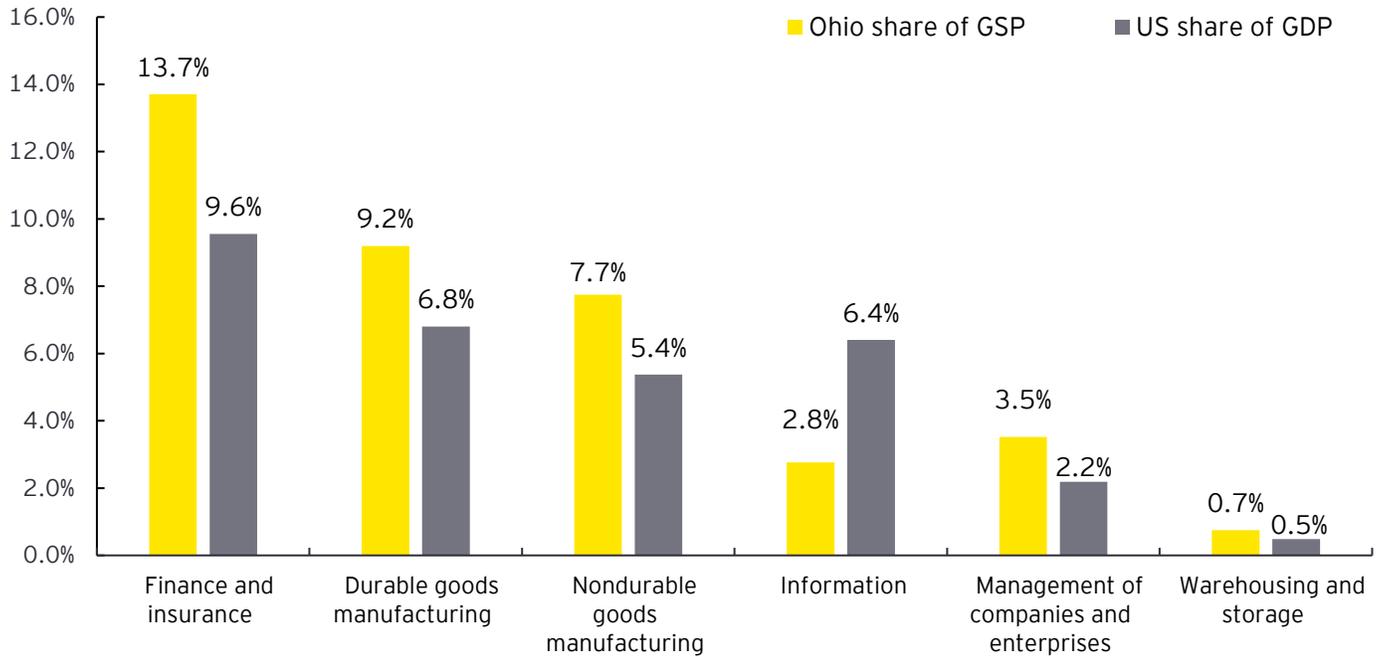
Source: EY analysis of Bureau of Economic Analysis and US Census data.

Figure 2 illustrates the industries included in this study, categorized at the 2-digit North American Industry Classification System (NAICS) level.¹⁴ The representation of each industry is based on its contribution to Ohio's GSP compared to its contribution to the overall Gross Domestic Product (GDP) of the United States.

The finance and insurance industry ranks highest for Ohio, composing 13.7% of state GSP. The industry share of US GDP is 9.6%, which is 4.1 percentage points lower than in Ohio. Durable goods manufacturing and non-durable goods manufacturing also represent significant portions of the Ohio economy and are greater than the US share by 2.4 and 2.3 percentage points, respectively. Of the selected industry groups, only the information industry has a higher share of US GDP (6.4%) than Ohio GSP (2.8%). Together, the six industries below represent nearly 38% of Ohio's economic activity. See Figure 2.

¹⁴ NAICS codes are numerical classifications of industries. The broadest category of NAICS codes are two digits, and the most detailed are six-digit. For example, NAICS 23 represents the construction industry, NAICS 2381 represents Foundation, Structure, and Building Exterior Contractors and NAICS 238150 represents Glass and Glazing contractors. For more information on NAICS codes, see <https://www.census.gov/programs-surveys/economic-census/year/2022/guidance/understanding-naics.html>

Figure 2. Industries by share of GSP in Ohio versus the US, FY 2021



Source: EY analysis of Bureau of Economic Analysis data.

2.2. Ohio state and local taxes compared with peer states

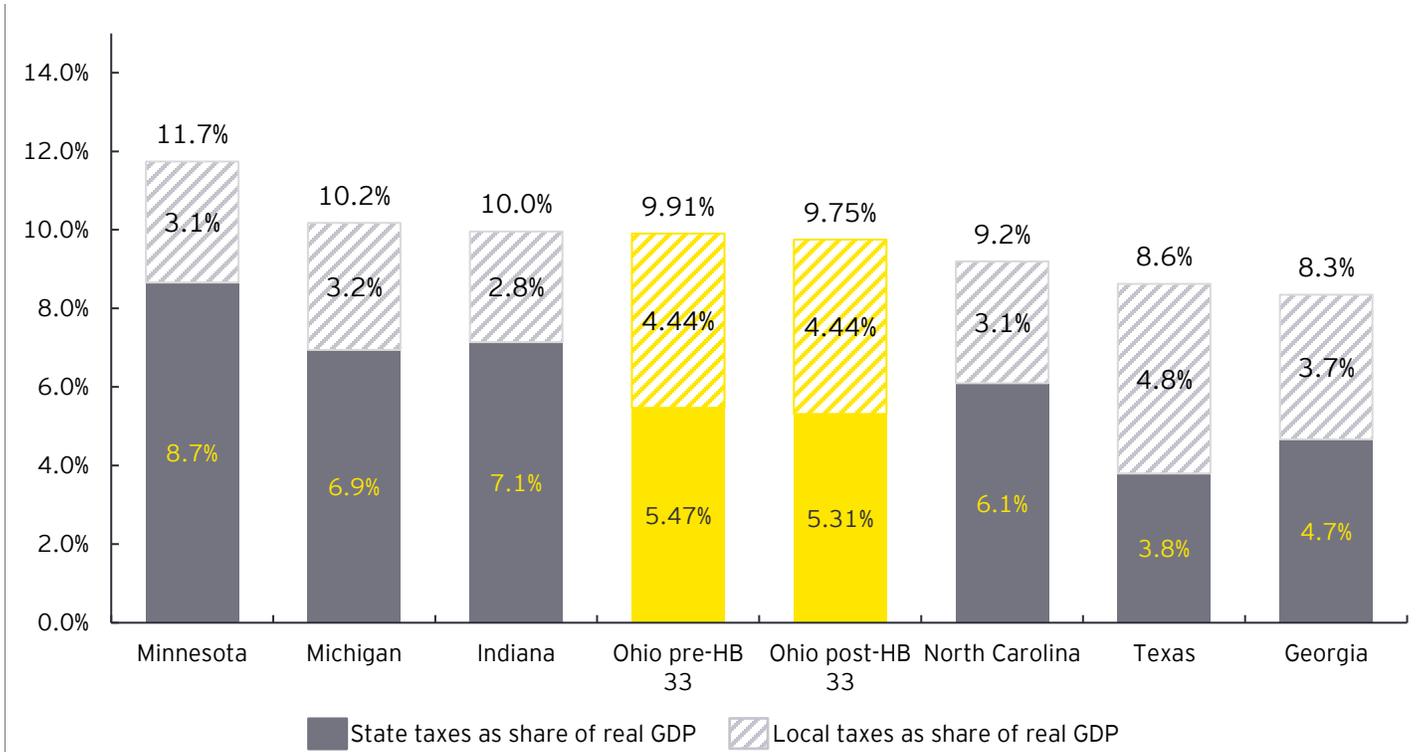
Figure 3 shows a comparison of state and local taxes from both businesses and households as a share of GSP for Ohio and the peer states. For comparison purposes, the results for Ohio are shown pre- and post-HB 33, with the post-HB 33 representing the FY 2021 tax burden if the reforms had been in place at the time. The difference reflects our estimate of the static revenue impact of HB 33. Based on our estimate, changes to the CAT would decrease FY 2021 collections from \$2.0 billion in revenue to about \$1.7 billion. This estimate will differ from the official scoring of HB 33, as it reflects a different year.¹⁵

For the purposes of this analysis, the recent tax changes in Ohio are estimated to impact only the amount of state taxes collected, and do not appear to materially impact local taxes. There are provisions in the legislation that could increase or decrease local taxes; however, most of these provisions were not significant enough to warrant an official revenue score by Ohio's Legislative Services Commission. As such, we assume there is no net impact of HB 33 on aggregate local tax collections.¹⁶ This assumption should be reevaluated once the impacts of the bill are fully understood.

Minnesota has the highest combined state and local taxes as a share of GSP at 11.7%, whereas Georgia has the lowest at 8.3%. Ohio's tax burden pre-HB 33 change is 9.91% and drops to 9.75% after the implementation of HB 33. Only Texas has a higher local tax burden (4.8%) than Ohio (4.44%).

¹⁵ Legislative Budget Office of LSC. "Companion Document," Main Operating Budget Bill (FY2024-FY2025), House Bill 33 - 135th General Assembly, January 24, 2024 (p.1071) <https://www.lsc.ohio.gov/assets/legislation/135/hb33/en0/files/hb33-comparison-document-as-enacted-135th-general-assembly.pdf>

Figure 3. State and local taxes as a share of state GSP, FY 2021 (Ohio shown pre- and post-HB 33)



Source: EY analysis of Census State and Local Finance Survey data.
 Notes: Bars may not sum due to rounding. Yellow represents Ohio.

To better understand the total tax burden shown in Figure 3, the following tables segment the state and local tax burden from businesses and households by tax type. Table 2 presents state-level taxes as a share of GSP by tax type. Ohio does not levy residential or commercial property taxes at the state level, and therefore has a share of 0.0%. With a state sales and use tax rate of 5.75%, Ohio has the 4th highest share (1.9%) of sales and use taxes among the peer states.

Ohio also levies the CAT at a rate of 0.26% on business gross receipts in excess of \$1 million, which is increased to \$6 million in 2025 by HB 33. This tax is categorized as a business entity tax, and results in businesses contributing 0.30% of taxes as a share GSP pre-HB 33 and drops to 0.26% once the HB 33 tax changes are implemented (it is coincidental that this share is the same as the tax rate of the CAT). Combined license and other tax and unemployment insurance tax represent only a 0.5% share of GSP. At 1.5% of GSP post-HB 33, individual income tax is an additional driver of state tax in Ohio but is ranked the lowest of states with an individual income tax. Ohio pre- and post-HB 33 has the third and fourth lowest state and local burden after Georgia (2nd lowest burden) and Texas (lowest burden).

Minnesota has a relatively high household income (ranked 13th in the country for real median household income across all US states), and thus has a larger income tax base to extract tax revenue. Besides Minnesota, no other peer state ranks within the top 20 states for median household income.¹⁷

¹⁷ U.S. Census Bureau (2022). Real Median Household Income by State, Annual. Retrieved from <https://fred.stlouisfed.org/release/tables?eid=259515&rid=249>

Table 2. State taxes as a share of GSP, FY 2021 (Ohio shown pre- and post-HB 33)

Tax type	Ohio pre-HB 33	Ohio post-HB 33	Georgia	Indiana	Michigan	Minnesota	North Carolina	Texas
Property taxes	0.0%	0.0%	0.1%	0.0%	0.5%	0.2%	0.0%	0.0%
Sales and use taxes	1.9%	1.9%	1.1%	2.4%	2.2%	1.8%	1.7%	2.0%
Excise taxes	1.2%	1.2%	0.5%	1.2%	0.9%	1.2%	0.8%	0.9%
License and other taxes*	0.3%	0.3%	0.1%	0.2%	0.5%	0.6%	0.5%	0.5%
Individual income taxes	1.6%	1.5%	2.3%	2.8%	2.3%	4.1%	2.8%	0.0%
Business entity taxes**	0.30%	0.26%	0.3%	0.4%	0.3%	0.6%	0.3%	0.3%
Unemployment insurance taxes	0.2%	0.2%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%
Total	5.5%	5.3%	4.7%	7.1%	6.9%	8.7%	6.1%	3.8%
Rank	4	3	2	7	6	8	5	1

Source: EY analysis of Census State and Local Finance Survey data. *The "License and other taxes" category include death and gift taxes, documentary and stock transfer taxes, severance taxes, and NEC taxes. **Gross receipts tax collections for Ohio and Texas have been shifted into the "business entity tax" category but otherwise reflect US Census data.

Note: Columns may not sum due to rounding.

For Ohio, property taxes are the main driver of local taxes at 2.9% of GSP. Only Texas and Michigan have a higher share of property taxes, and Texas taxes property well above the national average. For sales and use taxes, Ohio's share is lower than that of Georgia, North Carolina, and Texas. Indiana and Michigan do not levy local sales and use taxes. Individual income tax is an additional driver of local taxes in Ohio with a 0.9% tax burden as a share of GSP. Ohio's local income tax burden is an outlier among the peer states.

Table 3. Local taxes as a share of GSP, FY 2021

Tax type	Ohio	Georgia	Indiana	Michigan	Minnesota	North Carolina	Texas
Property taxes	2.9%	2.5%	2.3%	3.0%	2.8%	2.2%	4.1%
Sales and use taxes	0.4%	0.8%	0.0%	0.0%	0.1%	0.7%	0.5%
Excise taxes	0.0%	0.3%	0.1%	0.0%	0.1%	0.1%	0.2%
License and other taxes*	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Individual income taxes	0.9%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%
Business entity taxes	0.04%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	4.4%	3.7%	2.8%	3.2%	3.1%	3.1%	4.8%
Rank	6	5	1	4	2	3	7

Source: EY analysis of Census State and Local Finance Survey data. *The "License and other taxes" category include death and gift taxes, documentary and stock transfer taxes, severance taxes, and NEC taxes.

Note: Columns may not sum due to rounding.

Table 4 illustrates the per capita differential between Ohio's state and local taxes pre- and post-HB 33 and the peer state average. Ohio's state and local taxes are higher than the peer state average for excise, individual income, and business entity taxes, but lower for property, sales and use, and license and other taxes. Combined state and local individual income taxes contribute most significantly to the difference from the peer state average. For Ohio, HB 33 reduces the CAT (business entity tax) by \$25 per capita to \$168 per capita and brings Ohio below the peer state average of \$177 per capita. On average, total state and local taxes are \$174 (\$262 pre-HB 33) higher in Ohio than the average of the peer states.

Table 4. Composition of Ohio state and local taxes compared to peer states per capita average, FY 2021 (Ohio shown pre- and post-HB 33)

Tax type	Ohio pre-HB 33 change (A)	Ohio post-HB 33 change (B)	Peer State Average (C)	Difference (B-C)
Property taxes	\$1,629	\$1,629	\$1,871	-\$242
Sales and use taxes	\$1,287	\$1,287	\$1,326	-\$39
Excise taxes	\$687	\$687	\$587	\$100
License and other taxes*	\$223	\$223	\$290	-\$67
Individual income taxes	\$1,434	\$1,372	\$941	\$431
Business entity taxes**	\$193	\$168	\$177	-\$9
Total	\$5,454	\$5,366	\$5,192	\$174

Source: EY analysis using Census State and Local Finance Survey data. *The "License and other tax" category include death and gift taxes, documentary and stock transfer taxes, severance taxes, and NEC taxes. **Gross receipts tax collections for Ohio have been shifted into the "business entity tax" category but otherwise reflect US Census data.

Note: Rows and columns may not sum due to rounding.

3. Business tax competitiveness analysis

When comparing the attractiveness of state and local tax systems to businesses making investments in new or expanded facilities, much of the focus of legislators and the public centers on statutory tax rates. These tax rates are often used in interstate comparisons to illustrate purported differences in the level of corporate income, sales and use, and property taxes by comparing the statutory rates and other tax features rather than the total tax burden. Businesses contemplating a new investment, however, are concerned with the actual tax liability that results from an investment in a given location, not simply statutory tax features which are difficult to compare and combine into an overall estimate of tax burden.

This analysis provides a county-by-county comparison of the tax liabilities that new investments in selected industries would incur, taking into consideration state and local statutory tax provisions and the financial and economic characteristics of the new investments. The resulting specific industry tax burdens are aggregated to provide an overall measure of the business tax competitiveness of each location in each state. The results reflect the type of analysis undertaken by businesses when evaluating investment decisions to reveal the impact of state and local business tax systems on capital investment, the cornerstone of state economic development.

The methodology used in this section provides an overall index measuring the state and local taxes that new business investments face in each state. Unique features of the study include:

- ▶ The financial characteristics of new investments in each industry are held constant across the peer locations. This allows for isolation of the tax burden differences to the specific features of each state and local business tax system.
- ▶ The financial characteristics of the selected industries provide the level of financial detail needed to estimate the size of state and local business tax bases in each state. This includes detailed information on business purchases taxable under sales and use taxes, real and personal property taxes, gross receipts taxes, and the sourcing and apportionment of the corporate income tax bases.
- ▶ The financial characteristics of the selected “representative” firms automatically weight the importance of each of the state and local taxes in determining the overall competitiveness index. The weights assigned to each tax type (property taxes, corporate income taxes and sales and use taxes on inputs, for example) recognize differences in the state and local tax mix across industries.
- ▶ Detailed results for average tax burden by tax type, location and industry are broken out in the Appendix.

3.1. Business tax burden estimation approach

The business tax competitiveness analysis presents a comparison of the state and local business taxes that would be incurred by a company making an investment in a new facility or expansion of an existing facility. This approach compares marginal taxes on new capital investment, rather than the average level of taxes paid by all businesses in the state. While both measures of tax (average and marginal) are of interest to policymakers, marginal tax rates on new investment have the greatest tax related impact on a state’s economic development because these are the taxes that affect business investment decisions.¹⁸

To estimate these marginal taxes on new investment, the analysis uses the EY BTCM to estimate the effective state and local taxes imposed on investment in each peer location. The following is a brief overview of the steps used in developing the BTCM and estimating the taxes paid by the expanding businesses.

- ▶ The first step of the analysis is the construction of financial profiles for each of the ten industry types analyzed. The financial profiles are based on IRS Statistics of Income data and other data that include information on assets, liabilities, receipts, deductions, and net income. The financial profile is then projected for 30-years so that differences in the timing of certain taxes can be incorporated into the analysis.
- ▶ The analysis includes estimates of the major state and local taxes, including corporate income and alternative business income taxes applicable to corporations, sales and use taxes, and property taxes. For the types of industries included in the analysis,

¹⁸ Studies that use this approach and provide a more detailed description of the benefits of the hypothetical firm methodology include: Papke, James, and Leslie Papke. “Measuring Differential State-local Tax Liabilities and Their Implications for Business Investment Location.” *National Tax Journal*, (1986): 357-366 and Fisher, Peter S and Alan H Peters. “Measuring tax and incentive competition: What is the best yardstick?” *Regional Studies* (1997); 31:751-764.

these taxes represent the overwhelming majority of total tax liability and provide a good indicator of the level of total state and local taxes on a new investment.

- ▶ For each tax, the most significant tax system features are incorporated. For corporate and business income taxes, the model incorporates tax rates, base definitions (net income or alternate tax base), apportionment formula weights, and sourcing of sales. For the sales and use taxes, state and local sales and use tax rates are incorporated along with variations in the tax base for operating inputs and capital investment. For the property taxes, tax rates on five major classes of real and personal property are used, to reflect both the level of the statutory tax rate as well as the breadth of the tax base.¹⁹
- ▶ Taxes are estimated by year, considering changes in tax rates and other key tax system features scheduled to occur between 2023 and 2053 under current law.
- ▶ Based on the taxes estimated for each year of the 30-year period, the before and after-tax rate of return is estimated for each of the industry types. The ETR is then calculated based on the estimated change in the rate of return. For example, if the rate of return falls from 15% to 13%, a 2-percentage point decrease, this translates into a 13.3% ETR (the 2-percentage point decrease divided by the original 15% rate of return). The interpretation of this ETR measure is that it represents the percentage change in the rate of return on the investment in a new facility due to state and local taxes.

While the estimates provide results that can be used to evaluate the competitiveness of each locations' business tax system for the selected industry types included in the analysis, the study has several important limitations that should be understood when using the results:

- ▶ Other industry-specific taxes are not included in the analysis and can be significant for certain taxpayers. Insurance premium taxes, severance taxes, utility gross receipts, and public utility personal property taxes, and other excise taxes are not included in the analysis but would influence investment decisions for businesses operating in certain industries.
- ▶ The study examines the general tax system as it would apply to most businesses and accordingly does not consider statutory credits or negotiated incentives that relate to job creation, investment, or research activities. In some cases, these credits and incentives may significantly impact tax burdens, but are not generally available to a wide range of taxpayers and are therefore not included in the analysis.²⁰
- ▶ Non-tax costs are typically the most significant variable business cost and are not considered in this analysis. For example, labor costs account for approximately 30% of total US gross economic output, making it the most significant operating cost for most industries. Other operating costs, such as utilities and freight costs, can also influence location decisions. While this analysis identifies only state and local tax cost differences across locations, non-tax cost differentials may cause a high tax location to be a more desirable investment location than a low tax location. At the margin, however, taxes certainly influence investment location decisions.

3.2. Selected industries

The analysis generally focuses on industries that have a choice in location (e.g., headquarters, packaged software, and advanced manufacturing), but also industries that are strategically important to the state of Ohio.

Based on these considerations, the following industries were chosen for evaluation:

1. Headquarters (NAICS 5511)
2. Pharmaceutical, R&D, Gene therapy (NAICS 3254)
3. Hospitals (NAICS 622)

¹⁹ For the property tax portion of the model, Class II net ETRs are used for Ohio property tax rates. These net ETRs adjust for tax reduction factors established in HB 920 of 1976. The net ETRs are slightly adjusted upwards to account for nationwide commercial property value decreases from May 2022 through December 2023, as established by the Green Street Commercial Property Price Index.

²⁰ The one exception is the Michigan Industrial Facilities exemption, which is ubiquitous for new industrial investment. It reduces property taxes by 50% for a period of 12-years. This exemption is applied to qualifying investments in the model.

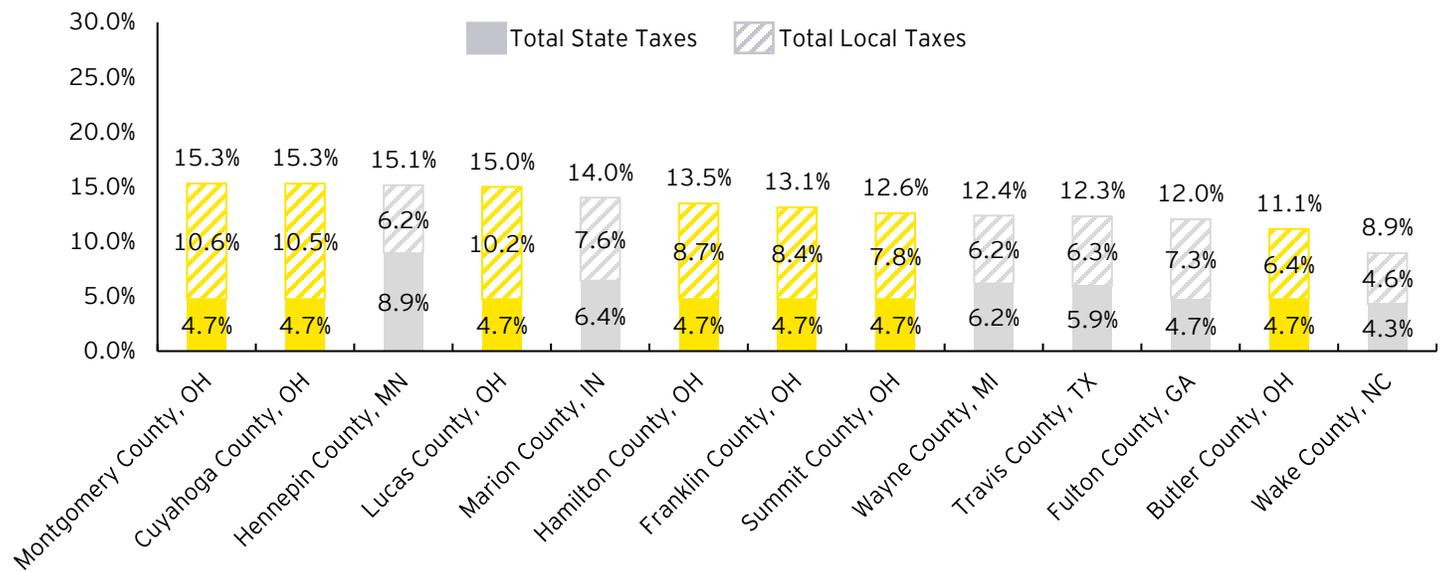
4. Auto parts manufacturing (NAICS 3363)
5. Advanced manufacturing (NAICS 335)
6. Food processing (NAICS 311)
7. Consumer goods (NAICS 3256 / 322)
8. Financial investment activities (NAICS 523)
9. Warehouse & Storage logistics (NAICS 4931)
10. Packaged software (NAICS 5112)

3.3. Overall business tax competitiveness results

Figure 4 below presents estimates of the average state and local tax burden for all industries included in the analysis. Unless otherwise indicated, these results represent the tax burden of a representative firm in Ohio after HB 33 has been implemented.

For counties in Ohio, the overall state and local tax burden ranges between an ETR of 11.1% (Hamilton, Butler County) and 15.3% (Dayton, Montgomery County). While not shown in Figure 4, the difference in the ETR between these two counties is mainly driven by a variation in effective property tax rates (5.4% in Hamilton, Butler County and 8.9% in Dayton, Montgomery County). Again, while not shown in Figure 4, Ohio's overall ETR average of 13.7% is slightly above that of the peer locations at 12.5%.

Figure 4. Average state and local ETRs across all industries



Source: EY analysis using BTCM.

Notes: Bars may not sum due to rounding. Yellow represents Ohio.

Table 5 further disaggregates the average local ETRs across all industries by peer location. Compared to the peer locations, most of the Ohio counties are less competitive in terms of local taxes. Only Wayne County (Detroit) and the counties (i.e., municipalities) in Ohio levy local business income taxes. In addition, property taxes tend to be higher in Ohio (average ETR of 7.4%) than in the peer locations (average ETR of 5.2%). Montgomery County (Dayton), in particular, stands out with an average property tax ETR of 8.9%. However, for local sales and use taxes, Ohio is more competitive than many of its peers that levy local sales and use taxes. On average, the Ohio counties have a lower local sales and use tax ETR than all of the peer locations with local sales and use taxes. In total, however, most Ohio counties rank in the bottom half of the distribution due to the dominant impact of local property taxes.

Table 5. Average local ETRs across all industries

Location	Local business income ETR (A)	Local property ETR (B)	Local sales and use ETR (C)	Total local ETR (A+B+C)	Rank
Wake County, NC	0.0%	3.0%	1.7%	4.6%	1
Wayne County, MI	0.6%	5.6%	0.0%	6.2%	2
Hennepin County, MN	0.0%	5.2%	1.0%	6.2%	3
Travis County, TX	0.0%	5.0%	1.3%	6.3%	4
Butler County, OH	0.6%	5.4%	0.4%	6.4%	5
Fulton County, GA	0.0%	4.7%	2.6%	7.3%	6
Marion County, IN	0.0%	7.6%	0.0%	7.6%	7
Summit County, OH	0.7%	6.6%	0.5%	7.8%	8
Franklin County, OH	0.7%	6.7%	0.9%	8.4%	9
Hamilton County, OH	0.5%	7.1%	1.1%	8.7%	10
Lucas County, OH	0.7%	8.4%	1.1%	10.2%	11
Cuyahoga County, OH	0.7%	8.6%	1.2%	10.5%	12
Montgomery County, OH	0.7%	8.9%	0.9%	10.6%	13

Source: EY analysis using BTCM.

Notes: Rows may not sum due to rounding. Yellow represents Ohio.

Table 6 summarizes the average tax burden for all industries for state-level taxes, which is where Ohio counties are most competitive. Ohio's sales and use tax on business capital and operating inputs has an average ETR of 3.3% compared with 3.5% for the peer locations. Ohio's 5.75% state sales and use tax rate is higher than North Carolina's and Georgia's, though Ohio's rate is slightly below the 5.81% average sales and use tax rate in the peer states.

Ohio's business entity tax, the CAT, results in an approximately 0.6% ETR, as opposed to an average of 1.5% ETR in the peer locations. For the CAT, these results will vary significantly by industry, driven by relative differences in gross receipts and profit margins. For corporations that operate in more than one state, many states use a multi-factor apportionment approach to determine the share of total corporate income subject to tax in the state. These factors typically include the share of sales, payroll, and or property within a state. The latter two apportionment factors increase taxable corporate income if a corporation chooses to invest in property or hire employees within a state and could thus act as a disincentive to invest or employ in a state using these apportionment factors. Ohio's CAT is based on destination sales (sales within Ohio) with market-based sourcing for services (based on location of the customer), a siting approach which does not result in additional tax when investment or employment occurs in the state. In this way, Ohio's CAT does not provide the investment disincentive that occurs from some other states' use of three-factor apportionment. However, in the selected peer locations, all states with a corporate net income tax use a similar single-factor sales apportionment approach.

Table 6. Average state ETRs across all industries

Peer Locations	State sales and use ETR (A)	State business income ETR (B)	Unemploy. Insur. ETR (C)	Total state ETR (A+B+C)	Rank
Wake County, NC	3.2%	0.2%	0.9%	4.3%	1
Fulton County, GA	2.1%	1.7%	0.9%	4.7%	2
Cuyahoga County, OH	3.3%	0.6%	0.9%	4.7%	3
Franklin County, OH	3.3%	0.6%	0.9%	4.7%	4
Hamilton County, OH	3.3%	0.6%	0.9%	4.7%	5
Lucas County, OH	3.3%	0.6%	0.9%	4.7%	6
Summit County, OH	3.3%	0.6%	0.9%	4.7%	7
Montgomery County, OH	3.3%	0.6%	0.9%	4.7%	8
Butler County, OH	3.3%	0.6%	0.9%	4.7%	9
Travis County, TX	4.2%	0.9%	0.8%	5.9%	10
Wayne County, MI	3.5%	1.8%	0.9%	6.2%	11
Marion County, IN	4.1%	1.5%	0.8%	6.4%	12
Hennepin County, MN	4.1%	2.9%	1.9%	8.9%	13

Source: EY analysis using BTCM.

Notes: Rows may not sum due to rounding. Yellow represents Ohio.

3.4. Business tax competitiveness by industry

Table 7 shows the results of the business tax analysis by industry. Average ETRs vary significantly depending on the relative profit margins, business inputs, expenditures, and the financial profile of each industry. Ohio's combined state and local tax ETRs exceeds that of the peer locations by at least 1.5 percentage points for six of the ten industries.

Table 7. State and local ETRs by industry in Ohio and peer averages

Industry ²¹	Ohio high ETR (A)	Ohio low ETR (B)	Ohio average ETR (C)	Peer average ETR (D)	Difference (C-D)
Headquarters	5.7%	4.1%	5.1%	4.6%	0.5%
Pharmaceutical manufacturing	12.7%	9.1%	11.3%	9.7%	1.6%
Hospitals	38.4%	29.1%	34.8%	32.4%	2.5%
Auto parts manufacturing	13.0%	9.4%	11.6%	11.0%	0.6%
Advanced manufacturing	13.1%	9.4%	11.6%	9.8%	1.8%
Food processing	13.9%	9.6%	12.2%	10.2%	1.9%
Consumer goods	17.9%	12.5%	15.8%	13.4%	2.4%
Financial investment activities	5.9%	4.2%	5.2%	4.5%	0.8%
Warehouse & Storage logistics	23.6%	17.0%	21.1%	22.3%	-1.2%
Packaged software	9.2%	6.9%	8.3%	6.8%	1.5%
Average	15.3%	11.1%	13.7%	12.5%	1.2%

Source: EY analysis using BTCM.

Notes: Rows may not sum due to rounding. Averages calculated from the table may differ from reported averages due to rounding.

²¹ The ETRs tied to Ohio's CAT depend on the chosen business size within the model. Business size is determined based on the average size of the industry using IRS Statistics of Income (SOI) data. As an illustration, when considering the average size of business receipts in the Headquarters industry, which is less than \$6 million, the resulting ETR for the CAT is 0%. However, for businesses in the top 10% of the size distribution based on income for the Headquarters industry, the CAT ETR in Ohio is 0.01%. This is 0.2 percent higher overall ETR than the current Ohio high ETR for Headquarters, holding everything else constant across the two models.

The results shown in Section 3 thus far have been specific to Ohio's tax burden after the implementation of HB 33. Table 8 compares the average business income ETRs by industry in Ohio pre- and post-HB 33. Due to an increase in the CAT exemption amount to \$6 million in 2025, the average ETRs decrease up to 0.8%. The post-HB 33 column in Table 8 reflects the \$6 million exemption in taxable gross receipt subject to the CAT.

For further detail regarding any of the tax burdens shown in this section, please see the results for average tax burden by tax type, location, and industry broken out in the Appendix.

Table 8. Ohio state business income ETRs pre- and post-HB 33 changes

Industry	Ohio state business income ETR pre-HB 33 (A)	Ohio state business income ETR post-HB 33 (B)	Difference (B) - (A)
Headquarters	0.0%	0.0%	0.00%
Pharmaceutical manufacturing	0.5%	0.5%	-0.03%
Hospitals	3.0%	3.0%	-0.03%
Auto parts manufacturing	0.9%	0.9%	-0.05%
Advanced manufacturing	1.0%	0.8%	-0.26%
Food processing	0.7%	0.4%	-0.25%
Consumer goods	0.5%	0.4%	-0.13%
Financial investment activities	0.1%	0.1%	0.00%
Warehouse & Storage logistics	0.8%	0.0%	-0.80%
Packaged software	0.0%	0.0%	-0.04%
Average	0.8%	0.6%	-0.16%

Source: EY analysis using BTCM.

Notes: Rows may not sum due to rounding. Averages calculated from the table may differ from reported averages due to rounding.

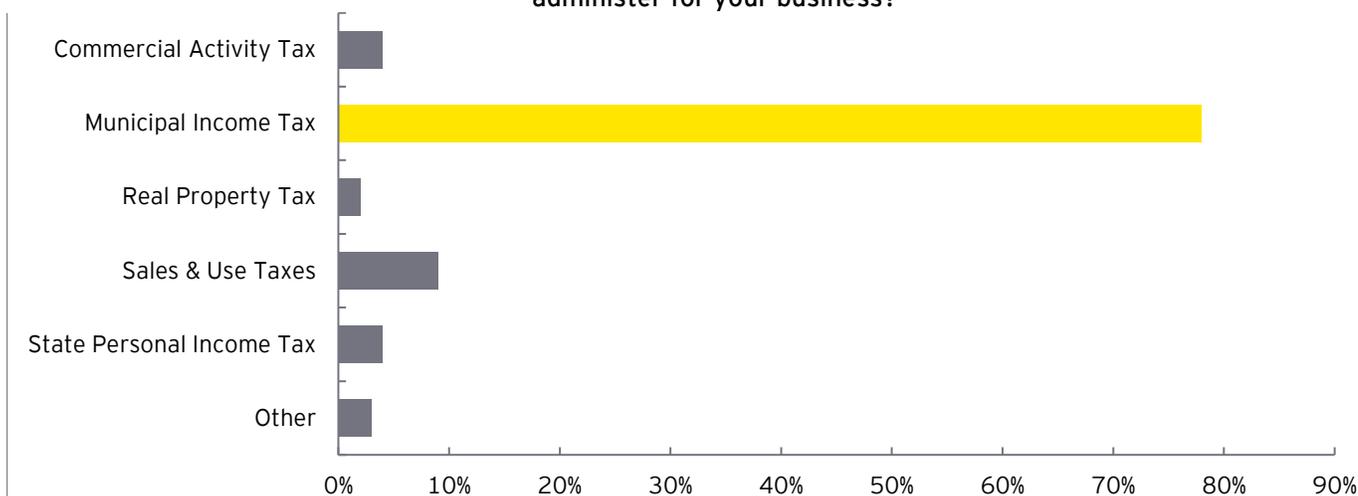
4. Local compliance costs for Ohio businesses

Compliance costs are the non-tax costs of complying with a tax system. These costs include time spent complying with taxes (e.g., record keeping, learning new laws, etc.) and out of pocket costs (e.g., software, hiring a paid preparer or bookkeeper, etc.). To capture the time and out-of-pocket costs faced by Ohio businesses to comply with local taxes, EY surveyed 52 firms in Ohio (see Appendix for details).²²

Similar to the EY survey's findings discussed below, a survey conducted by the Ohio Society of CPAs revealed that most respondents believe Ohio's municipal income tax imposes the greatest administrative burden on businesses of Ohio's local tax features (refer to Figure 5 below). In Ohio, the municipal income tax poses a higher compliance burden because there are numerous taxing jurisdictions, and it is common for employees to work and live in different locations, or to work in multiple jurisdictions. To partially address this, credits are provided for at least some of the variance between the taxes paid at the work jurisdiction and the employee's residential location. However, managing these credits, understanding the applicable rules, and accurately calculating the amount a business must withhold and remit for each employee can be a complex and burdensome task from a business standpoint, a task not required in most other states.

Ohio's multitude of local taxing jurisdictions also adds another layer of business income compliance costs not found in other states due to apportionment of local business income. This burden is even greater for businesses dealing with inventory and other personal property, which is a factor used in the determination of local income apportionment.

Figure 5. Survey result: "from a compliance standpoint, which Ohio tax is the most burdensome and costly to administer for your business?"



Source: The Ohio Society of CPAs Advocacy & Thought Leadership report.

Table 9 shows the estimated Ohio local income tax compliance cost per business by number of employees. Most survey respondents were small businesses, with 48% of respondents having fewer than 20 employees. The cost of compliance increases with the number of employees driven by the cost of handling local income tax withholding. While this compliance issue has existed in Ohio for decades, the recent trend to hybrid and remote work presents an additional burden to even small Ohio firms as the number of different working locations increase, and businesses need to comply with other municipal income taxes.

While the dollar value of compliance costs increases with the size of the business, the costs as a share of payroll decrease as firms get larger. The compliance costs for small businesses (1-19 employees) represent 1.8% of average payroll costs, compared to larger businesses (100+ employees) with compliance costs as a share of payroll of 0.1%. This finding is in line with numerous studies, which have found that smaller businesses are disproportionately impacted by compliance costs.²³ The costs for larger business are comparatively less significant, while a tax system that is difficult to comply with can have substantial costs and limit competitiveness

²² Due to the timing of the survey, firms would not have experienced the tax regime after Ohio HB 33. Any compliance changes resulting from the change in the tax structure would not be captured in this analysis. However, due to the focus of the survey on local taxes only, and limited changes to local taxes contained in Ohio HB 33, this should have no effect.

²³ Slemrod, Joel B., and Varsha Venkatesh. "The income tax compliance cost of large and mid-size businesses." Ross School of Business Paper 914 (2002).

of small business. But, in any event, even larger businesses do not face these compliance costs in other states, making Ohio less competitive.

Table 9. Ohio local tax compliance cost estimates per business by number of employees

Average annual cost estimates per business	# of Employees		
	1-19	20-99	100+
Time-cost of compliance (A)	\$3,000	\$5,282	\$8,893
Responding to local tax notices (a.1)	\$155	\$398	\$1,181
Handling local income tax withholding (a.2)	\$1,671	\$2,435	\$5,509
Other costs (a.3)	\$1,173	\$2,448	\$2,204
Additional Out of Pocket expenses (B)	\$1,023	\$1,559	\$6,414
Average payroll (statewide by size of business) (C)	\$227,000	\$1,940,000	\$20,500,000
Total annual compliance cost per business (A+B)	\$4,022	\$6,840	\$15,308
Compliance cost as a share of payroll ((A+B)/C)	1.8%	0.4%	0.1%
<i>Response count</i>	13	8	5

Source: EY Ohio municipal tax compliance cost survey, Bureau of Labor Statistics Occupational Employment and Wage Statistics, County Business Patterns.

Notes: Columns might not sum due to rounding. Not all survey recipients responded to every question; therefore, the response count does not total 52 respondents.

The survey conducted by the Ohio Society of CPAs has similar compliance burden findings. While not shown in the charts below, 78% of the CPAs indicated the municipal income tax as the most burdensome to their business in terms of compliance. 61% of the CPAs with businesses that also operate outside of Ohio believed the municipal income tax was the most anti-competitive tax compared to other state tax systems. A plurality of the CPAs agreed that the municipal income tax was most in need of reform compared to the other major state and local taxes.

Surveyed businesses provided many suggestions for improvements to reduce compliance cost and improve efficiency. Table 10 summarizes themes in respondents' suggestions to reduce the burden of Ohio local tax compliance. The recent survey conducted by the Ohio Society of CPAs has similar compliance burden findings.

Table 10. Respondent suggestions to reduce burden of Ohio local compliance

Suggestions	Count
Process improvements	17
Eliminate certain taxes	10
Tax policy simplifications	5
Other / no response	20

Source: EY Ohio municipal tax compliance cost survey.

Survey respondents provided hourly estimates for 1) Ohio local tax compliance, 2) responding to Ohio local tax notices, 3) Ohio local employee income tax withholding compliance, and 4) a dollar estimate for additional out of pocket costs attributable to Ohio local taxes. Table 11 shows the average annual per business cost estimates of Ohio local tax compliance. The time cost estimates are calculated by multiplying the survey respondents' hourly estimates by the average hourly wage for a tax professional. According to the Bureau of Labor Statistics the average salary for an accounting, tax preparation or bookkeeping professional (NAICS 54121) in the state of Ohio was \$81,856. This equates to an average rate of \$39 per hour for a standard work year of 2,080 hours. The total compliance costs are estimated by adding the cost of hours spent complying to the out-of-pocket costs.

The time cost estimates range from 1 hour (\$39) to 600 hours (\$23,610) depending in large part on the number of employees per business. On average, complying with Ohio local employee income tax withholding accounts for approximately 34% of the total compliance cost. Out of pocket costs range from \$50 to \$20,800 annually.

Table 11. Ohio local tax compliance cost estimates per business

Average annual cost estimates per business	Cost	Share of total
Total time cost	\$4,852	69%
Responding to local tax notices	\$376	5%
Handling local income tax withholding	\$2,366	34%
Other costs	\$2,110	30%
Additional out of pocket costs	\$2,171	31%
Total annual compliance cost per business	\$7,023	100%

Source: EY Ohio municipal tax compliance cost survey and Bureau of Labor Statistics Occupational Employment and Wage Statistics.
 Note: Columns might not sum due to rounding.

5. Conclusion

This study presents two approaches to benchmark state and local taxes in Ohio relative to the selected peer states and locations. The first approach measures the overall level of business and household state and local taxes in Ohio and peer states using aggregate tax collections as a share of GSP. By this measure, Ohio's tax burden is roughly equivalent to peer states, a finding that holds true both pre- and post-HB 33. However, Ohio's local tax collections are second highest as a share of GSP, only behind Texas.

The second approach evaluates the tax burden that would be faced by a hypothetical firm on a new business investment over the 30-year life of a capital investment in each of the seven Ohio counties and six peer locations in other states. This evaluation is done for ten industries. The second analysis, which focuses exclusively on businesses, shows that businesses located in the selected Ohio counties face combined state and local taxes that are higher than the average of peer locations (13.7% vs 12.5% average ETR, respectively). Generally, the state-level ETRs are slightly lower in Ohio as compared with peer locations, and the statutory rates are competitive. For example, Ohio's state-level sales and use tax rate of 5.75% is slightly below the 5.81% average sales and use tax rate in the peer states, which in turn reduces Ohio's sales and use tax ETR on business capital and operating inputs (average of 3.3% in Ohio vs 3.5% for the peer locations). When analyzing the results by industry, Ohio ETRs are at least 1.5 percentage points higher for six of the ten industries. This is in large part driven by Ohio's local tax ETRs. For local-level taxes, Ohio is less competitive than the peer locations examined in this analysis. Particularly, local property taxes tend to be higher in Ohio counties (average ETR of 7.4%) than in the peer locations (average ETR of 5.2%).

The results of the combined analyses suggest that Ohio's state-level tax structure generally provides a competitive business tax environment, but Ohio's local tax system and tax rates result in higher ETRs than the local taxes levied in peer locations. Additionally, the fragmented structure of Ohio's local tax system creates additional compliance burden for Ohio companies compared to companies in the peer locations.

To measure the compliance burden in Ohio, EY surveyed 52 firms on their time spent complying with taxes (e.g., record keeping, learning new laws, etc.) and out of pocket costs (e.g., software, hiring a paid preparer or bookkeeper, etc.). The results of the survey indicate that compliance with local tax forms represents a burden for 63% of respondents and leads to reported annual time costs between \$39 (1 hour) and \$23,610 (600 hours) per business. Ohio's municipal income tax was identified as most burdensome in terms of compliance by respondents in another survey conducted by the Ohio Society of CPAs. The hundreds of local taxing jurisdictions in Ohio result in local compliance costs in Ohio that are not experienced by businesses in other states.

6. Appendix

Effective tax rates by tax type, location, and industry:

Note: All Appendix table subcategories may not sum due to rounding.

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
Headquarters (Management): Post-HB 33 changes	Travis County, TX	0.0%	1.6%	0.7%	2.2%	2.1%	0.0%	0.1%	2.2%	4.4%	4
	Hennepin County, MN	0.0%	2.1%	0.4%	2.5%	1.8%	1.0%	0.3%	3.2%	5.7%	11
	Wake County, NC	0.0%	0.9%	0.8%	1.7%	1.5%	0.1%	0.2%	1.7%	3.4%	1
	Marion County, IN	0.0%	2.6%	0.0%	2.6%	1.7%	0.5%	0.1%	2.3%	4.9%	7
	Fulton County, GA	0.0%	1.4%	0.9%	2.3%	0.7%	0.6%	0.1%	1.5%	3.8%	2
	Wayne County, MI	0.2%	2.8%	0.0%	3.0%	1.4%	0.6%	0.2%	2.2%	5.2%	9
	Franklin County, OH	0.3%	2.7%	0.4%	3.4%	1.3%	0.0%	0.1%	1.5%	4.8%	6
	Cuyahoga County, OH	0.3%	3.5%	0.5%	4.3%	1.3%	0.0%	0.1%	1.5%	5.7%	13
	Hamilton County, OH	0.2%	2.9%	0.5%	3.5%	1.3%	0.0%	0.1%	1.5%	5.0%	8
	Lucas County, OH	0.3%	3.4%	0.5%	4.1%	1.3%	0.0%	0.1%	1.5%	5.6%	10
	Summit County, OH	0.3%	2.7%	0.2%	3.1%	1.3%	0.0%	0.1%	1.5%	4.6%	5
	Montgomery County, OH	0.3%	3.6%	0.4%	4.3%	1.3%	0.0%	0.1%	1.5%	5.7%	12
	Butler County, OH	0.2%	2.2%	0.2%	2.6%	1.3%	0.0%	0.1%	1.5%	4.1%	3
	Ohio average	0.2%	3.0%	0.4%	3.6%	1.3%	0.0%	0.1%	1.5%	5.1%	--
	Peer average	0.0%	1.9%	0.5%	2.4%	1.5%	0.5%	0.2%	2.2%	4.6%	--
Total average	0.1%	2.5%	0.4%	3.1%	1.4%	0.2%	0.2%	1.8%	4.9%	--	
Pharmaceutical manufacturing: Post-HB 33 changes	Travis County, TX	0.0%	4.2%	0.9%	5.0%	2.8%	0.7%	0.5%	4.0%	9.0%	2
	Hennepin County, MN	0.0%	4.5%	0.7%	5.2%	3.0%	2.7%	1.1%	6.8%	12.0%	10
	Wake County, NC	0.0%	2.5%	1.1%	3.6%	2.1%	0.1%	0.5%	2.7%	6.2%	1
	Marion County, IN	0.0%	6.5%	0.0%	6.5%	3.0%	1.3%	0.5%	4.8%	11.3%	9
	Fulton County, GA	0.0%	4.0%	2.2%	6.1%	1.7%	1.6%	0.5%	3.8%	9.9%	5
	Wayne County, MI	0.5%	4.4%	0.0%	4.9%	2.6%	1.6%	0.5%	4.7%	9.6%	4
	Franklin County, OH	0.7%	5.8%	0.8%	7.3%	2.6%	0.5%	0.5%	3.5%	10.8%	7
	Cuyahoga County, OH	0.7%	7.5%	1.0%	9.2%	2.6%	0.5%	0.5%	3.5%	12.7%	12
	Hamilton County, OH	0.5%	6.2%	0.9%	7.6%	2.6%	0.5%	0.5%	3.5%	11.1%	8
	Lucas County, OH	0.7%	7.3%	0.9%	8.9%	2.6%	0.5%	0.5%	3.5%	12.4%	11
	Summit County, OH	0.7%	5.7%	0.4%	6.8%	2.6%	0.5%	0.5%	3.5%	10.4%	6
	Montgomery County, OH	0.7%	7.7%	0.8%	9.2%	2.6%	0.5%	0.5%	3.5%	12.7%	13

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
	Butler County, OH	0.5%	4.7%	0.3%	5.6%	2.6%	0.5%	0.5%	3.5%	9.1%	3
	Ohio average	0.6%	6.4%	0.7%	7.8%	2.6%	0.5%	0.5%	3.5%	11.3%	--
	Peer average	0.1%	4.3%	0.8%	5.2%	2.5%	1.3%	0.6%	4.5%	9.7%	--
	Total average	0.4%	5.5%	0.8%	6.6%	2.5%	0.9%	0.5%	4.0%	10.6%	--
Hospitals: Post-HB 33 changes	Travis County, TX	0.0%	9.4%	4.2%	13.6%	13.2%	4.5%	1.8%	19.5%	33.1%	6
	Hennepin County, MN	0.0%	10.7%	3.0%	13.7%	12.3%	8.4%	4.2%	24.9%	38.6%	13
	Wake County, NC	0.0%	5.4%	5.6%	11.0%	10.6%	1.2%	1.9%	13.8%	24.7%	1
	Marion County, IN	0.0%	13.9%	0.0%	13.9%	12.8%	4.2%	1.8%	18.9%	32.8%	5
	Fulton County, GA	0.0%	8.7%	9.0%	17.7%	7.3%	4.8%	1.9%	14.0%	31.8%	3
	Wayne County, MI	1.6%	13.6%	0.0%	15.2%	10.8%	5.2%	1.9%	17.9%	33.1%	7
	Franklin County, OH	2.0%	13.4%	2.9%	18.3%	10.6%	3.0%	1.9%	15.5%	33.8%	8
	Cuyahoga County, OH	2.0%	17.2%	3.7%	22.9%	10.6%	3.0%	1.9%	15.5%	38.4%	12
	Hamilton County, OH	1.5%	14.3%	3.4%	19.1%	10.6%	3.0%	1.9%	15.5%	34.6%	9
	Lucas County, OH	2.0%	16.8%	3.3%	22.1%	10.6%	3.0%	1.9%	15.5%	37.6%	10
	Summit County, OH	2.0%	13.1%	1.6%	16.8%	10.6%	3.0%	1.9%	15.5%	32.2%	4
	Montgomery County, OH	2.0%	17.7%	2.9%	22.6%	10.6%	3.0%	1.9%	15.5%	38.1%	11
	Butler County, OH	1.6%	10.8%	1.2%	13.7%	10.6%	3.0%	1.9%	15.5%	29.1%	2
	Ohio average	1.9%	14.7%	2.7%	19.4%	10.6%	3.0%	1.9%	15.5%	34.8%	--
Peer average	0.3%	10.3%	3.6%	14.2%	11.2%	4.7%	2.3%	18.2%	32.4%	--	
Total average	1.1%	12.7%	3.1%	17.0%	10.8%	3.8%	2.1%	16.7%	33.7%	--	
Auto parts manufacturing: Post-HB 33 changes	Travis County, TX	0.0%	6.7%	0.8%	7.5%	2.5%	0.6%	0.7%	3.7%	11.2%	6
	Hennepin County, MN	0.0%	4.5%	0.6%	5.2%	2.6%	2.7%	1.5%	6.8%	12.0%	9
	Wake County, NC	0.0%	4.0%	0.9%	4.9%	1.7%	0.2%	0.7%	2.6%	7.5%	1
	Marion County, IN	0.0%	9.1%	0.0%	9.1%	2.7%	1.4%	0.6%	4.7%	13.8%	13
	Fulton County, GA	0.0%	6.4%	1.8%	8.1%	1.4%	1.6%	0.7%	3.7%	11.8%	8
	Wayne County, MI	0.5%	4.4%	0.0%	4.9%	2.3%	1.7%	0.7%	4.7%	9.6%	3
	Franklin County, OH	0.7%	5.8%	0.7%	7.2%	2.3%	0.9%	0.7%	3.8%	11.0%	5
	Cuyahoga County, OH	0.7%	7.5%	0.9%	9.1%	2.3%	0.9%	0.7%	3.8%	12.9%	11
	Hamilton County, OH	0.5%	6.2%	0.8%	7.5%	2.3%	0.9%	0.7%	3.8%	11.3%	7
	Lucas County, OH	0.7%	7.3%	0.8%	8.8%	2.3%	0.9%	0.7%	3.8%	12.7%	10
	Summit County, OH	0.7%	5.7%	0.4%	6.8%	2.3%	0.9%	0.7%	3.8%	10.7%	4

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
	Montgomery County, OH	0.7%	7.7%	0.7%	9.1%	2.3%	0.9%	0.7%	3.8%	13.0%	12
	Butler County, OH	0.6%	4.7%	0.3%	5.6%	2.3%	0.9%	0.7%	3.8%	9.4%	2
	Ohio average	0.6%	6.4%	0.6%	7.7%	2.3%	0.9%	0.7%	3.8%	11.6%	--
	Peer average	0.1%	5.8%	0.7%	6.6%	2.2%	1.4%	0.8%	4.4%	11.0%	--
	Total average	0.4%	6.2%	0.7%	7.2%	2.3%	1.1%	0.7%	4.1%	11.3%	--
Advanced manufacturing: Post-HB 33 changes	Travis County, TX	0.0%	4.4%	0.4%	4.8%	1.3%	1.0%	1.6%	4.0%	8.8%	2
	Hennepin County, MN	0.0%	4.8%	0.3%	5.1%	1.2%	3.2%	3.9%	8.3%	13.4%	13
	Wake County, NC	0.0%	2.6%	0.5%	3.1%	1.0%	0.2%	1.7%	2.9%	6.0%	1
	Marion County, IN	0.0%	6.9%	0.0%	6.9%	1.3%	1.6%	1.6%	4.4%	11.3%	9
	Fulton County, GA	0.0%	4.2%	0.8%	5.0%	0.7%	1.8%	1.7%	4.2%	9.2%	3
	Wayne County, MI	0.6%	4.7%	0.0%	5.3%	1.1%	1.9%	1.7%	4.7%	10.1%	5
	Franklin County, OH	0.8%	6.3%	0.4%	7.4%	1.2%	0.8%	1.6%	3.6%	11.0%	7
	Cuyahoga County, OH	0.8%	8.1%	0.5%	9.3%	1.2%	0.8%	1.6%	3.6%	12.9%	11
	Hamilton County, OH	0.6%	6.6%	0.4%	7.6%	1.2%	0.8%	1.6%	3.6%	11.2%	8
	Lucas County, OH	0.8%	7.9%	0.4%	9.1%	1.2%	0.8%	1.6%	3.6%	12.7%	10
	Summit County, OH	0.8%	6.2%	0.2%	7.2%	1.2%	0.8%	1.6%	3.6%	10.7%	6
	Montgomery County, OH	0.8%	8.3%	0.4%	9.5%	1.2%	0.8%	1.6%	3.6%	13.1%	12
	Butler County, OH	0.6%	5.1%	0.2%	5.9%	1.2%	0.8%	1.6%	3.6%	9.4%	4
	Ohio average	0.8%	6.9%	0.3%	8.0%	1.2%	0.8%	1.6%	3.6%	11.6%	--
Peer average	0.1%	4.6%	0.3%	5.1%	1.1%	1.6%	2.0%	4.7%	9.8%	--	
Total average	0.5%	5.9%	0.3%	6.6%	1.1%	1.2%	1.8%	4.1%	10.8%	--	
Food processing: Post-HB 33 changes	Travis County, TX	0.0%	5.9%	0.5%	6.4%	1.6%	0.6%	1.0%	3.3%	9.7%	3
	Hennepin County, MN	0.0%	5.8%	0.4%	6.2%	1.6%	2.2%	2.4%	6.3%	12.5%	9
	Wake County, NC	0.0%	3.6%	0.6%	4.2%	1.2%	0.1%	1.1%	2.4%	6.5%	1
	Marion County, IN	0.0%	9.0%	0.0%	9.0%	1.7%	1.1%	1.0%	3.8%	12.8%	10
	Fulton County, GA	0.0%	5.6%	1.1%	6.8%	0.9%	1.3%	1.1%	3.3%	10.0%	5
	Wayne County, MI	0.4%	5.6%	0.0%	6.1%	1.4%	1.4%	1.1%	3.9%	10.0%	4
	Franklin County, OH	0.6%	7.5%	0.4%	8.5%	1.5%	0.4%	1.0%	2.9%	11.4%	7
	Cuyahoga County, OH	0.6%	9.7%	0.6%	10.8%	1.5%	0.4%	1.0%	2.9%	13.7%	12
	Hamilton County, OH	0.4%	7.9%	0.5%	8.9%	1.5%	0.4%	1.0%	2.9%	11.8%	8
	Lucas County, OH	0.6%	9.5%	0.5%	10.5%	1.5%	0.4%	1.0%	2.9%	13.5%	11

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
	Summit County, OH	0.6%	7.4%	0.3%	8.2%	1.5%	0.4%	1.0%	2.9%	11.1%	6
	Montgomery County, OH	0.6%	10.0%	0.4%	11.0%	1.5%	0.4%	1.0%	2.9%	13.9%	13
	Butler County, OH	0.5%	6.1%	0.2%	6.7%	1.5%	0.4%	1.0%	2.9%	9.6%	2
	Ohio average	0.5%	8.3%	0.4%	9.2%	1.5%	0.4%	1.0%	2.9%	12.2%	--
	Peer average	0.1%	5.9%	0.4%	6.4%	1.4%	1.1%	1.3%	3.8%	10.2%	--
	Total average	0.3%	7.2%	0.4%	7.9%	1.4%	0.7%	1.2%	3.3%	11.3%	--
Consumer goods: Post-HB 33 changes	Travis County, TX	0.0%	7.4%	1.1%	8.5%	3.4%	0.6%	0.6%	4.7%	13.2%	4
	Hennepin County, MN	0.0%	7.1%	0.9%	8.0%	3.6%	2.2%	1.4%	7.3%	15.3%	8
	Wake County, NC	0.0%	4.4%	1.3%	5.8%	2.5%	0.1%	0.7%	3.3%	9.0%	1
	Marion County, IN	0.0%	11.1%	0.0%	11.1%	3.7%	1.1%	0.6%	5.4%	16.6%	10
	Fulton County, GA	0.0%	7.0%	2.6%	9.7%	2.1%	1.3%	0.6%	4.0%	13.7%	5
	Wayne County, MI	0.4%	6.9%	0.0%	7.4%	3.2%	1.3%	0.6%	5.2%	12.5%	3
	Franklin County, OH	0.6%	9.2%	0.9%	10.7%	3.2%	0.4%	0.6%	4.2%	14.9%	7
	Cuyahoga County, OH	0.6%	11.9%	1.2%	13.6%	3.2%	0.4%	0.6%	4.2%	17.8%	12
	Hamilton County, OH	0.4%	9.8%	1.1%	11.3%	3.2%	0.4%	0.6%	4.2%	15.4%	9
	Lucas County, OH	0.6%	11.6%	1.1%	13.3%	3.2%	0.4%	0.6%	4.2%	17.5%	11
	Summit County, OH	0.6%	9.1%	0.5%	10.2%	3.2%	0.4%	0.6%	4.2%	14.3%	6
	Montgomery County, OH	0.6%	12.3%	0.9%	13.8%	3.2%	0.4%	0.6%	4.2%	17.9%	13
	Butler County, OH	0.5%	7.5%	0.4%	8.3%	3.2%	0.4%	0.6%	4.2%	12.5%	2
	Ohio average	0.5%	10.2%	0.9%	11.6%	3.2%	0.4%	0.6%	4.2%	15.8%	--
	Peer average	0.1%	7.3%	1.0%	8.4%	3.1%	1.1%	0.8%	5.0%	13.4%	--
Total average	0.3%	8.9%	0.9%	10.1%	3.1%	0.7%	0.7%	4.5%	14.7%	--	
Financial investment activities: Post-HB 33 changes	Travis County, TX	0.0%	1.5%	0.6%	2.1%	1.8%	0.2%	0.2%	2.2%	4.3%	4
	Hennepin County, MN	0.0%	2.0%	0.4%	2.4%	1.6%	1.2%	0.4%	3.2%	5.6%	10
	Wake County, NC	0.0%	0.9%	0.7%	1.6%	1.4%	0.1%	0.2%	1.6%	3.2%	1
	Marion County, IN	0.0%	2.5%	0.0%	2.5%	1.6%	0.6%	0.2%	2.3%	4.8%	5
	Fulton County, GA	0.0%	1.4%	0.9%	2.3%	0.8%	0.7%	0.2%	1.6%	3.9%	2
	Wayne County, MI	0.2%	2.6%	0.0%	2.9%	1.3%	0.7%	0.2%	2.2%	5.1%	8
	Franklin County, OH	0.3%	2.5%	0.4%	3.3%	1.5%	0.1%	0.2%	1.7%	5.0%	7
	Cuyahoga County, OH	0.3%	3.3%	0.6%	4.1%	1.5%	0.1%	0.2%	1.7%	5.9%	13
	Hamilton County, OH	0.2%	2.7%	0.5%	3.4%	1.5%	0.1%	0.2%	1.7%	5.2%	9

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
	Lucas County, OH	0.3%	3.2%	0.5%	4.0%	1.5%	0.1%	0.2%	1.7%	5.8%	11
	Summit County, OH	0.3%	2.5%	0.3%	3.1%	1.5%	0.1%	0.2%	1.7%	4.8%	6
	Montgomery County, OH	0.3%	3.4%	0.4%	4.1%	1.5%	0.1%	0.2%	1.7%	5.9%	12
	Butler County, OH	0.2%	2.1%	0.2%	2.5%	1.5%	0.1%	0.2%	1.7%	4.2%	3
	Ohio average	0.3%	2.8%	0.4%	3.5%	1.5%	0.1%	0.2%	1.7%	5.2%	--
	Peer average	0.0%	1.8%	0.4%	2.3%	1.4%	0.6%	0.2%	2.2%	4.5%	--
	Total average	0.2%	2.3%	0.4%	2.9%	1.4%	0.3%	0.2%	1.9%	4.9%	--
Warehouse & Storage logistics: Post-HB 33 changes	Travis County, TX	0.0%	7.2%	2.9%	10.1%	9.1%	0.9%	1.5%	11.5%	21.6%	8
	Hennepin County, MN	0.0%	8.5%	2.3%	10.8%	9.6%	4.8%	3.4%	17.8%	28.5%	13
	Wake County, NC	0.0%	4.2%	3.6%	7.7%	6.8%	0.5%	1.5%	8.8%	16.5%	1
	Marion County, IN	0.0%	11.2%	0.0%	11.2%	9.7%	2.4%	1.4%	13.6%	24.8%	12
	Fulton County, GA	0.0%	6.6%	5.5%	12.1%	4.5%	2.8%	1.5%	8.8%	20.9%	6
	Wayne County, MI	0.9%	8.1%	0.0%	9.0%	8.1%	2.9%	1.5%	12.5%	21.5%	7
	Franklin County, OH	1.2%	10.8%	1.4%	13.4%	5.1%	0.0%	1.5%	6.7%	20.1%	4
	Cuyahoga County, OH	1.2%	13.9%	1.9%	16.9%	5.1%	0.0%	1.5%	6.7%	23.6%	10
	Hamilton County, OH	0.9%	11.4%	1.7%	14.0%	5.1%	0.0%	1.5%	6.7%	20.7%	5
	Lucas County, OH	1.2%	13.6%	1.6%	16.4%	5.1%	0.0%	1.5%	6.7%	23.1%	9
	Summit County, OH	1.2%	10.6%	0.8%	12.6%	5.1%	0.0%	1.5%	6.7%	19.3%	3
	Montgomery County, OH	1.2%	14.3%	1.4%	16.9%	5.1%	0.0%	1.5%	6.7%	23.6%	11
	Butler County, OH	1.0%	8.8%	0.6%	10.3%	5.1%	0.0%	1.5%	6.7%	17.0%	2
	Ohio average	1.1%	11.9%	1.4%	14.4%	5.1%	0.0%	1.5%	6.7%	21.1%	--
Peer average	0.2%	7.6%	2.4%	10.1%	8.0%	2.4%	1.8%	12.2%	22.3%	--	
Total average	0.7%	9.9%	1.8%	12.4%	6.4%	1.1%	1.7%	9.2%	21.6%	--	
Packaged software: Post-HB 33 changes	Travis County, TX	0.0%	1.9%	1.3%	3.2%	4.0%	0.1%	0.3%	4.5%	7.7%	7
	Hennepin County, MN	0.0%	2.2%	0.8%	3.0%	3.2%	0.9%	0.7%	4.9%	7.8%	8
	Wake County, NC	0.0%	1.1%	1.6%	2.7%	3.1%	0.1%	0.3%	3.5%	6.2%	2
	Marion County, IN	0.0%	3.0%	0.0%	3.0%	3.2%	0.5%	0.3%	4.0%	7.0%	5
	Fulton County, GA	0.0%	1.8%	1.4%	3.2%	1.2%	0.5%	0.3%	2.0%	5.2%	1
	Wayne County, MI	0.2%	3.0%	0.0%	3.1%	2.8%	0.6%	0.3%	3.7%	6.8%	3
	Franklin County, OH	0.2%	2.8%	1.1%	4.2%	3.6%	0.0%	0.3%	3.9%	8.1%	9
	Cuyahoga County, OH	0.2%	3.7%	1.4%	5.3%	3.6%	0.0%	0.3%	3.9%	9.2%	13

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
	Hamilton County, OH	0.2%	3.0%	1.3%	4.5%	3.6%	0.0%	0.3%	3.9%	8.3%	10
	Lucas County, OH	0.2%	3.6%	1.2%	5.1%	3.6%	0.0%	0.3%	3.9%	9.0%	11
	Summit County, OH	0.2%	2.8%	0.6%	3.7%	3.6%	0.0%	0.3%	3.9%	7.5%	6
	Montgomery County, OH	0.2%	3.8%	1.1%	5.1%	3.6%	0.0%	0.3%	3.9%	9.0%	12
	Butler County, OH	0.2%	2.3%	0.5%	3.0%	3.6%	0.0%	0.3%	3.9%	6.9%	4
	Ohio average	0.2%	3.1%	1.0%	4.4%	3.6%	0.0%	0.3%	3.9%	8.3%	--
	Peer average	0.0%	2.2%	0.8%	3.0%	2.9%	0.4%	0.4%	3.7%	6.8%	--
	Total average	0.1%	2.7%	0.9%	3.8%	3.3%	0.2%	0.4%	3.8%	7.6%	--
Headquarters (Management): Pre-HB 33 changes	Franklin County, OH	0.3%	2.7%	0.4%	3.4%	1.3%	0.0%	0.1%	1.5%	4.8%	3
	Cuyahoga County, OH	0.3%	3.5%	0.5%	4.3%	1.3%	0.0%	0.1%	1.5%	5.7%	7
	Hamilton County, OH	0.2%	2.9%	0.5%	3.5%	1.3%	0.0%	0.1%	1.5%	5.0%	4
	Lucas County, OH	0.3%	3.4%	0.5%	4.1%	1.3%	0.0%	0.1%	1.5%	5.6%	5
	Summit County, OH	0.3%	2.7%	0.2%	3.1%	1.3%	0.0%	0.1%	1.5%	4.6%	2
	Montgomery County, OH	0.3%	3.6%	0.4%	4.3%	1.3%	0.0%	0.1%	1.5%	5.7%	6
	Butler County, OH	0.2%	2.2%	0.2%	2.6%	1.3%	0.0%	0.1%	1.5%	4.1%	1
	Ohio average	0.2%	3.0%	0.4%	3.6%	1.3%	0.0%	0.1%	1.5%	5.1%	--
Pharmaceutical manufacturing: Pre-HB 33 changes	Franklin County, OH	0.7%	5.8%	0.8%	7.3%	2.6%	0.5%	0.5%	3.6%	10.8%	3
	Cuyahoga County, OH	0.7%	7.5%	1.0%	9.2%	2.6%	0.5%	0.5%	3.6%	12.7%	6
	Hamilton County, OH	0.5%	6.2%	0.9%	7.6%	2.6%	0.5%	0.5%	3.6%	11.1%	4
	Lucas County, OH	0.7%	7.3%	0.9%	8.9%	2.6%	0.5%	0.5%	3.6%	12.5%	5
	Summit County, OH	0.7%	5.7%	0.4%	6.8%	2.6%	0.5%	0.5%	3.6%	10.4%	2
	Montgomery County, OH	0.7%	7.7%	0.8%	9.2%	2.6%	0.5%	0.5%	3.6%	12.8%	7
	Butler County, OH	0.5%	4.7%	0.3%	5.6%	2.6%	0.5%	0.5%	3.6%	9.1%	1
	Ohio average	0.6%	6.4%	0.7%	7.8%	2.6%	0.5%	0.5%	3.6%	11.4%	--
Hospitals: Pre-HB 33 changes	Franklin County, OH	2.0%	13.4%	2.9%	18.3%	10.5%	3.0%	1.9%	15.5%	33.9%	3
	Cuyahoga County, OH	2.0%	17.2%	3.7%	22.9%	10.5%	3.0%	1.9%	15.5%	38.4%	7
	Hamilton County, OH	1.5%	14.3%	3.4%	19.1%	10.5%	3.0%	1.9%	15.5%	34.6%	4
	Lucas County, OH	2.0%	16.8%	3.3%	22.1%	10.5%	3.0%	1.9%	15.5%	37.7%	5
	Summit County, OH	2.0%	13.1%	1.6%	16.8%	10.5%	3.0%	1.9%	15.5%	32.3%	2
	Montgomery County, OH	2.0%	17.7%	2.9%	22.6%	10.5%	3.0%	1.9%	15.5%	38.1%	6
	Butler County, OH	1.6%	10.8%	1.2%	13.7%	10.5%	3.0%	1.9%	15.5%	29.2%	1

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
	Ohio average	1.9%	14.7%	2.7%	19.4%	10.5%	3.0%	1.9%	15.5%	34.9%	--
Auto parts manufacturing: Pre-HB 33 changes	Franklin County, OH	0.7%	5.8%	0.7%	7.2%	2.3%	0.9%	0.7%	3.9%	11.1%	3
	Cuyahoga County, OH	0.7%	7.5%	0.9%	9.1%	2.3%	0.9%	0.7%	3.9%	13.0%	6
	Hamilton County, OH	0.5%	6.2%	0.8%	7.5%	2.3%	0.9%	0.7%	3.9%	11.4%	4
	Lucas County, OH	0.7%	7.3%	0.8%	8.8%	2.3%	0.9%	0.7%	3.9%	12.7%	5
	Summit County, OH	0.7%	5.7%	0.4%	6.8%	2.3%	0.9%	0.7%	3.9%	10.7%	2
	Montgomery County, OH	0.7%	7.7%	0.7%	9.1%	2.3%	0.9%	0.7%	3.9%	13.0%	7
	Butler County, OH	0.6%	4.7%	0.3%	5.6%	2.3%	0.9%	0.7%	3.9%	9.5%	1
	Ohio average	0.6%	6.4%	0.6%	7.7%	2.3%	0.9%	0.7%	3.9%	11.6%	--
Advanced manufacturing: Pre-HB 33 changes	Franklin County, OH	0.8%	6.3%	0.4%	7.4%	1.2%	1.0%	1.6%	3.8%	11.2%	3
	Cuyahoga County, OH	0.8%	8.1%	0.5%	9.3%	1.2%	1.0%	1.6%	3.8%	13.2%	6
	Hamilton County, OH	0.6%	6.6%	0.4%	7.6%	1.2%	1.0%	1.6%	3.8%	11.5%	4
	Lucas County, OH	0.8%	7.9%	0.4%	9.1%	1.2%	1.0%	1.6%	3.8%	12.9%	5
	Summit County, OH	0.8%	6.2%	0.2%	7.2%	1.2%	1.0%	1.6%	3.8%	11.0%	2
	Montgomery County, OH	0.8%	8.3%	0.4%	9.5%	1.2%	1.0%	1.6%	3.8%	13.3%	7
	Butler County, OH	0.6%	5.1%	0.2%	5.9%	1.2%	1.0%	1.6%	3.8%	9.7%	1
	Ohio average	0.8%	6.9%	0.3%	8.0%	1.2%	1.0%	1.6%	3.8%	11.8%	--
Food processing: Pre-HB 33 changes	Franklin County, OH	0.6%	7.5%	0.4%	8.5%	1.5%	0.7%	1.0%	3.2%	11.7%	3
	Cuyahoga County, OH	0.6%	9.7%	0.6%	10.8%	1.5%	0.7%	1.0%	3.2%	14.0%	6
	Hamilton County, OH	0.4%	7.9%	0.5%	8.9%	1.5%	0.7%	1.0%	3.2%	12.0%	4
	Lucas County, OH	0.6%	9.5%	0.5%	10.5%	1.5%	0.7%	1.0%	3.2%	13.7%	5
	Summit County, OH	0.6%	7.4%	0.3%	8.2%	1.5%	0.7%	1.0%	3.2%	11.4%	2
	Montgomery County, OH	0.6%	10.0%	0.4%	11.0%	1.5%	0.7%	1.0%	3.2%	14.2%	7
	Butler County, OH	0.5%	6.1%	0.2%	6.7%	1.5%	0.7%	1.0%	3.2%	9.9%	1
	Ohio average	0.5%	8.3%	0.4%	9.2%	1.5%	0.7%	1.0%	3.2%	12.4%	--
Consumer goods: Pre-HB 33 changes	Franklin County, OH	0.6%	9.2%	0.9%	10.7%	3.2%	0.5%	0.6%	4.3%	15.0%	3
	Cuyahoga County, OH	0.6%	11.9%	1.2%	13.6%	3.2%	0.5%	0.6%	4.3%	18.0%	6
	Hamilton County, OH	0.4%	9.8%	1.1%	11.3%	3.2%	0.5%	0.6%	4.3%	15.6%	4
	Lucas County, OH	0.6%	11.6%	1.1%	13.3%	3.2%	0.5%	0.6%	4.3%	17.6%	5
	Summit County, OH	0.6%	9.1%	0.5%	10.2%	3.2%	0.5%	0.6%	4.3%	14.5%	2
	Montgomery County, OH	0.6%	12.3%	0.9%	13.8%	3.2%	0.5%	0.6%	4.3%	18.1%	7

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
	Butler County, OH	0.5%	7.5%	0.4%	8.3%	3.2%	0.5%	0.6%	4.3%	12.6%	1
	Ohio average	0.5%	10.2%	0.9%	11.6%	3.2%	0.5%	0.6%	4.3%	15.9%	--
Financial investment activities: Pre-HB 33 changes	Franklin County, OH	0.3%	2.5%	0.4%	3.3%	1.5%	0.1%	0.2%	1.7%	5.0%	3
	Cuyahoga County, OH	0.3%	3.3%	0.6%	4.1%	1.5%	0.1%	0.2%	1.7%	5.9%	7
	Hamilton County, OH	0.2%	2.7%	0.5%	3.4%	1.5%	0.1%	0.2%	1.7%	5.2%	4
	Lucas County, OH	0.3%	3.2%	0.5%	4.0%	1.5%	0.1%	0.2%	1.7%	5.8%	5
	Summit County, OH	0.3%	2.5%	0.3%	3.1%	1.5%	0.1%	0.2%	1.7%	4.8%	2
	Montgomery County, OH	0.3%	3.4%	0.4%	4.1%	1.5%	0.1%	0.2%	1.7%	5.9%	6
	Butler County, OH	0.2%	2.1%	0.2%	2.5%	1.5%	0.1%	0.2%	1.7%	4.2%	1
	Ohio average	0.3%	2.8%	0.4%	3.5%	1.5%	0.1%	0.2%	1.7%	5.2%	--
	Warehouse & Storage logistics: Pre-HB 33 changes	Franklin County, OH	1.2%	10.8%	1.4%	13.4%	5.1%	0.8%	1.5%	7.4%	20.8%
Cuyahoga County, OH		1.2%	13.9%	1.9%	16.9%	5.1%	0.8%	1.5%	7.4%	24.3%	6
Hamilton County, OH		0.9%	11.4%	1.7%	14.0%	5.1%	0.8%	1.5%	7.4%	21.4%	4
Lucas County, OH		1.2%	13.6%	1.6%	16.4%	5.1%	0.8%	1.5%	7.4%	23.8%	5
Summit County, OH		1.2%	10.6%	0.8%	12.6%	5.1%	0.8%	1.5%	7.4%	20.0%	2
Montgomery County, OH		1.2%	14.3%	1.4%	16.9%	5.1%	0.8%	1.5%	7.4%	24.3%	7
Butler County, OH		1.0%	8.8%	0.6%	10.3%	5.1%	0.8%	1.5%	7.4%	17.7%	1
Ohio average		1.1%	11.9%	1.4%	14.4%	5.1%	0.8%	1.5%	7.4%	21.8%	--
Packaged software: Pre-HB 33 changes	Franklin County, OH	0.2%	2.8%	1.1%	4.2%	3.6%	0.0%	0.3%	3.9%	8.1%	3
	Cuyahoga County, OH	0.2%	3.7%	1.4%	5.3%	3.6%	0.0%	0.3%	3.9%	9.2%	7
	Hamilton County, OH	0.2%	3.0%	1.3%	4.5%	3.6%	0.0%	0.3%	3.9%	8.4%	4
	Lucas County, OH	0.2%	3.6%	1.2%	5.1%	3.6%	0.0%	0.3%	3.9%	9.0%	5
	Summit County, OH	0.2%	2.8%	0.6%	3.7%	3.6%	0.0%	0.3%	3.9%	7.6%	2
	Montgomery County, OH	0.2%	3.8%	1.1%	5.1%	3.6%	0.0%	0.3%	3.9%	9.0%	6
	Butler County, OH	0.2%	2.3%	0.5%	3.0%	3.6%	0.0%	0.3%	3.9%	6.9%	1
	Ohio average	0.2%	3.1%	1.0%	4.4%	3.6%	0.0%	0.3%	3.9%	8.3%	--
Average across all industries: Post-HB 33 changes	Travis County, TX	0.0%	5.0%	1.3%	6.3%	4.2%	0.9%	0.8%	5.9%	12.3%	4
	Hennepin County, MN	0.0%	5.2%	1.0%	6.2%	4.1%	2.9%	1.9%	8.9%	15.1%	11
	Wake County, NC	0.0%	3.0%	1.7%	4.6%	3.2%	0.2%	0.9%	4.3%	8.9%	1
	Marion County, IN	0.0%	7.6%	0.0%	7.6%	4.1%	1.5%	0.8%	6.4%	14.0%	9
	Fulton County, GA	0.0%	4.7%	2.6%	7.3%	2.1%	1.7%	0.9%	4.7%	12.0%	3

Industry	Location	Local business taxes	Local property taxes	Local sales & use taxes	Total local taxes	State sales & use taxes	State business taxes	Unemp. insur. taxes	Total state taxes	Total taxes	Total rank
	Wayne County, MI	0.6%	5.6%	0.0%	6.2%	3.5%	1.8%	0.9%	6.2%	12.4%	5
	Franklin County, OH	0.7%	6.7%	0.9%	8.4%	3.3%	0.6%	0.9%	4.7%	13.1%	7
	Cuyahoga County, OH	0.7%	8.6%	1.2%	10.5%	3.3%	0.6%	0.9%	4.7%	15.3%	12
	Hamilton County, OH	0.5%	7.1%	1.1%	8.7%	3.3%	0.6%	0.9%	4.7%	13.5%	8
	Lucas County, OH	0.7%	8.4%	1.1%	10.2%	3.3%	0.6%	0.9%	4.7%	15.0%	10
	Summit County, OH	0.7%	6.6%	0.5%	7.8%	3.3%	0.6%	0.9%	4.7%	12.6%	6
	Montgomery County, OH	0.7%	8.9%	0.9%	10.6%	3.3%	0.6%	0.9%	4.7%	15.3%	13
	Butler County, OH	0.6%	5.4%	0.4%	6.4%	3.3%	0.6%	0.9%	4.7%	11.1%	2
Average across all industries: Pre-HB 33 changes	Travis County, TX	0.0%	5.0%	1.3%	6.3%	4.2%	0.9%	0.8%	5.9%	12.3%	4
	Hennepin County, MN	0.0%	5.2%	1.0%	6.2%	4.1%	2.9%	1.9%	8.9%	15.1%	11
	Wake County, NC	0.0%	3.0%	1.7%	4.6%	3.2%	0.2%	0.9%	4.3%	8.9%	1
	Marion County, IN	0.0%	7.6%	0.0%	7.6%	4.1%	1.5%	0.8%	6.4%	14.0%	9
	Fulton County, GA	0.0%	4.7%	2.6%	7.3%	2.1%	1.7%	0.9%	4.7%	12.0%	3
	Wayne County, MI	0.6%	5.6%	0.0%	6.2%	3.5%	1.8%	0.9%	6.2%	12.4%	5
	Franklin County, OH	0.7%	6.7%	0.9%	8.4%	3.3%	0.8%	0.8%	4.9%	13.3%	7
	Cuyahoga County, OH	0.7%	8.6%	1.2%	10.5%	3.3%	0.8%	0.8%	4.9%	15.4%	12
	Hamilton County, OH	0.5%	7.1%	1.1%	8.7%	3.3%	0.8%	0.8%	4.9%	13.6%	8
	Lucas County, OH	0.7%	8.4%	1.1%	10.2%	3.3%	0.8%	0.8%	4.9%	15.1%	10
	Summit County, OH	0.7%	6.6%	0.5%	7.8%	3.3%	0.8%	0.8%	4.9%	12.7%	6
	Montgomery County, OH	0.7%	8.9%	0.9%	10.6%	3.3%	0.8%	0.8%	4.9%	15.4%	13
Butler County, OH	0.6%	5.4%	0.4%	6.4%	3.3%	0.8%	0.8%	4.9%	11.3%	2	

Table 12. Survey respondents by industry

Industry	Number of respondents
Advanced Manufacturing	5
Aerospace	1
Agriculture	2
Aviation	1
Construction	6
Education	2
Energy	2
Financial Services	4
Food Processing	1
Research and Development	2
Prefer Not to Stay	3
Other	23
Total	52

Source: EY Ohio municipal tax compliance cost survey.

Table 13. Survey respondents by number of employees

Employees	Number of respondents
1-19	25
20-49	11
50-99	6
100-249	5
250-499	1
500-999	0
1000-2500	1
2501-4999	2
5000 or more	1
Total	52

Source: EY Ohio municipal tax compliance cost survey.

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