



# Competitiveness of state and local business taxes on new investment

Ranking states by tax burden on  
new investment

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## The authors

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This study was prepared by the Quantitative Economics and Statistics Practice (QUEST) of Ernst & Young LLP in conjunction with the Council On State Taxation (COST). QUEST is a group of economists, statisticians, and tax policy researchers within Ernst & Young LLP's National Tax practice, located in Washington, D.C. QUEST provides quantitative advisory services to private and public sector clients that enhance business processes, support regulatory compliance, analyze proposed policy issues and provide litigation support.

COST is a nonprofit trade association based in Washington, D.C. COST was formed in 1969 as an advisory committee to the Council of State Chambers of Commerce and today has an independent membership of nearly 600 major corporations engaged in interstate and international business. COST's objective is to preserve and promote the equitable and nondiscriminatory state and local taxation of multijurisdictional business entities.



# Executive summary

As states recover from the recent recession, legislators and policy-makers are focusing attention on state policies designed to retain and expand employment and attract new investment. State and local business tax policy is an important element of this policy discussion, and legislators want to know how a state's current business tax system compares to other states considered to be competitors for jobs and investment.

This study provides a state-by-state comparison of the tax liabilities that new investments in selected industries or types of economic activities would incur in each state, taking into consideration state and local statutory tax provisions and the financial and economic characteristics of the new investments. The analysis focuses on capital investments in industries that have location choices, such as factories or headquarters, rather than those that are tied to a specific geography, such as retailers or hotels. The estimated tax burdens on selected investments are combined to provide an overall measure of the business tax competitiveness of each state.

The results reflect the type of analysis that businesses use to evaluate decisions about where to locate new capital investments in plant and equipment. The business tax competitive indexes reported in this study isolate the impact of state and local business tax systems on new capital investment, the cornerstone of state economic development. Typically, companies select the location for new investments by examining a wide range of tax system features and non-tax cost factors, such as labor, utility, and transportation costs. While non-tax cost factors are usually more significant in determining the overall cost of operating a facility in each state, tax factors can be a determining factor between states with otherwise similar non-tax costs.

Site selection projects typically occur in two phases. The first phase involves a high-level examination of operating cost and tax factors for a number of states. By eliminating states with out-of-line tax and non-tax cost factors from further consideration, the investor narrows its investigation to a "short list" of states with favorable characteristics. Typically, the tax factors considered in determining the short list of

states include readily-available tax features, such as statutory tax rates and income apportionment formulas. Most investors then conduct a more thorough analysis of the tax implications of investing in each of the states on its short list. The competitiveness index reported in this study provides a more accurate measure of the taxes imposed on new investments than a simple comparison of statutory effective tax rates.

State and local taxes imposed on business are extensive and complex. Certain tax system features were not included in the analysis and are discussed in the limitations section, including mandatory unitary combined reporting, tax credits, industry-specific taxes, and

**Table E-1. Top-10 and Bottom-10 states ranked by Ernst & Young LLP/COST business tax competitiveness, 2009**

States with the lowest ETR on new investment			States with the highest ETR on new investment		
State	Effective tax rate	Rank	State	Effective tax rate	Rank
Maine	3.0%	1	West Virginia	9.7%	42
Oregon	3.8%	2	Alabama	9.7%	43
Ohio	4.4%	3	Mississippi	10.2%	44
Wisconsin	4.5%	4	Tennessee	10.3%	45
Illinois	4.6%	5	Hawaii	10.8%	46
Virginia	5.4%	6	Louisiana	11.1%	47
New Hampshire	5.4%	7	Kansas	11.2%	48
Delaware	5.7%	8	Rhode Island	11.5%	49
Wyoming	5.8%	9	District of Columbia	16.6%	50
Minnesota	6.0%	10	New Mexico	16.6%	51



unemployment insurance taxes. The methodology used to estimate the Ernst & Young LLP/Council On State Taxation (COST) business tax competitiveness index reported in this study provides an objective, systematic approach to summarizing the tax impacts of the complex systems of state and local taxes on different types of new mobile capital investments in each state in terms of the effective tax rate on returns from the investments. The approach combines estimates of the actual tax amounts imposed on hypothetical new investments with information on the nation-wide composition of recent new capital investment to create a weighted average of business tax burdens on the types of investments that states are currently pursuing. These overall tax burdens are summarized in the Ernst & Young LLP/COST business tax competitiveness index.

Table E-1 identifies the 10 states with the highest and lowest effective tax rates for the types of new capital investments being made in the U.S.

As explained in detail in this report, the business tax burdens include all major state and local taxes imposed on business activities associated with new capital investments including:

- ▶ Income and franchise taxes on profits (including gross receipts taxes)
- ▶ Real and personal property taxes
- ▶ Sales taxes on business input purchases

The types of mobile capital investments analyzed include:

- ▶ Headquarters facilities
- ▶ Research and development facilities
- ▶ Office and call center facilities
- ▶ Durable manufacturing facilities
- ▶ Non-durable manufacturing facilities

The modeling of business tax burdens combines detailed information on tax provisions affecting the definition of tax bases, as well as statutory tax rates. The rankings show that differences in how states define tax bases are, for many states, more important in determining tax competitiveness than the statutory tax rates.

The results also clearly show that legislators need to examine the entire system of state and local business taxes, not just a single tax, in evaluating their state's tax competitiveness. In fact, the results suggest that legislators have not paid enough attention to the role of "sales" in understanding tax burdens imposed on business investments and on-going operations. This includes both (1) sales to businesses subject to sales taxes imposed on taxable products and (2) services purchased as business inputs, and the "sourcing" or geographic assignment of sales by business in determining instate corporate income and gross receipts tax bases. Because both sales taxes and entity-level business taxes are levied at high rates, variations in the definition of these tax bases have a significant impact on the competitiveness rankings presented in this study.

In addition to providing a snapshot at a point in time of the competitiveness of current state and local business tax systems, the competitiveness index provides an objective, systematic way for evaluating the positive or negative impacts of legislative tax changes on a state's competitiveness. These impacts will be visible in changes in the annual business tax competitiveness index rankings over time.

# Introduction

When comparing the attractiveness of state 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 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.

This analysis provides a state-by-state 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 state. The results reflect the type of analysis undertaken by businesses when evaluating investments decisions to reveal the impact of state and local business tax systems on capital investment, the cornerstone of state economic development.

The business tax competitiveness analysis builds on a decade of Ernst & Young LLP's experience in analyzing state and local business taxes, drawing on the following:

- ▶ Ernst & Young LLP's annual study estimating total state and local taxes paid by business, done in conjunction with the COST, is used to identify the major taxes imposed in each state on new business investments in selected industries.<sup>1</sup>
  - ▶ Ernst & Young LLP's annual study of the state-by-state amounts and industry distribution of new capital investments and jobs.<sup>2</sup> This information is used in the business competitiveness analysis to create an index that measures the relative business tax burdens for the types of mobile capital investments that businesses are actually making.
- The methodology used in this business tax competitiveness study 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 states. This allows 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 the sales tax, property taxes on real and personal property, gross receipts taxes and the sourcing and apportionment of corporate income and excise tax bases.
  - ▶ The financial characteristics of the selected "representative" firms automatically weight the importance of each state and local tax in determining the overall competitiveness index. The weights assigned to each tax type (property tax, corporate income tax and sales tax on inputs, for example) recognize differences in the state and local tax mix across industries.



- ▶ The tax burdens for representative investments in selected industries are aggregated to derive a weighted-average competitiveness index for each state. The weights assigned to each industry's result when averaging to a single overall result are based on the relative importance of each type of capital investment in the mix of recent mobile capital investments in the US. In other words, the result for facilities that accounted for a larger share of recent investment is given more weight in the overall average than the result for facilities that generated a smaller share of the total investment. This approach provides an objective way of weighting the different industry tax burdens to derive an overall business tax competitiveness index for each state.
- ▶ The use of actual data on capital investments that businesses are undertaking nation-wide provides important information about how competitive current state and local business tax systems are for mobile capital investments.

It is important to note that while this analysis provides estimates of the state and local taxes that would be paid by businesses on a new investment, the analysis does not attempt to estimate the final economic incidence of those taxes.<sup>3</sup> The results presented in this study are also dependent on the facility types analyzed and the assumptions used in the analysis. In addition, the results are sensitive to certain assumptions, such as the distribution of nation-wide apportionment factors and the value of taxable property.

The Ernst & Young LLP business tax competitiveness index can be used by state legislators and officials to evaluate their current state and local tax systems and to identify tax changes that could improve their business tax competitiveness. The analysis focuses on taxes imposed on new capital investments. As states begin to recover from the recent recession, decision-makers will be focusing on economic development initiatives to retain and expand in-state jobs and investments in plant and equipment. This study's focus on capital investment also reflects the increasing international mobility of capital and associated jobs.

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<sup>1</sup>For the latest study, see Ernst & Young LLP, Total State and Local Business Taxes: State-by-State Estimates for Fiscal Year 2009, March 2010.

<sup>2</sup>Ernst & Young LLP, 2010 US Investment Monitor: Tracking Mobile Capital Investments During the 2007-2009 Recession, February 2010 provides detailed information on capital investments by state and by industry.

<sup>3</sup>For an analysis of the economic incidence of state and local business taxes, see Cline, Robert; Andrew Phillips; Joo Mi Kim; and Tom Neubig, "The Economic Incidence of Additional State Business Taxes," State Tax Notes, January 11, 2010 p. 105.

# Detailed description of approach

The Ernst & Young LLP/COST business tax competitiveness index 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 policy-makers, marginal tax rates on new investment have the greatest impact on a state's economic development because these are the taxes that affect business investment decisions.<sup>4</sup>

To estimate these marginal taxes on new investment, the analysis uses the Ernst & Young LLP business tax competitiveness model (BTCM) to estimate the effective state and local taxes imposed on investment in each state. The following is a brief overview of the steps used in developing the BTCM and estimating the taxes paid by the expanding businesses.

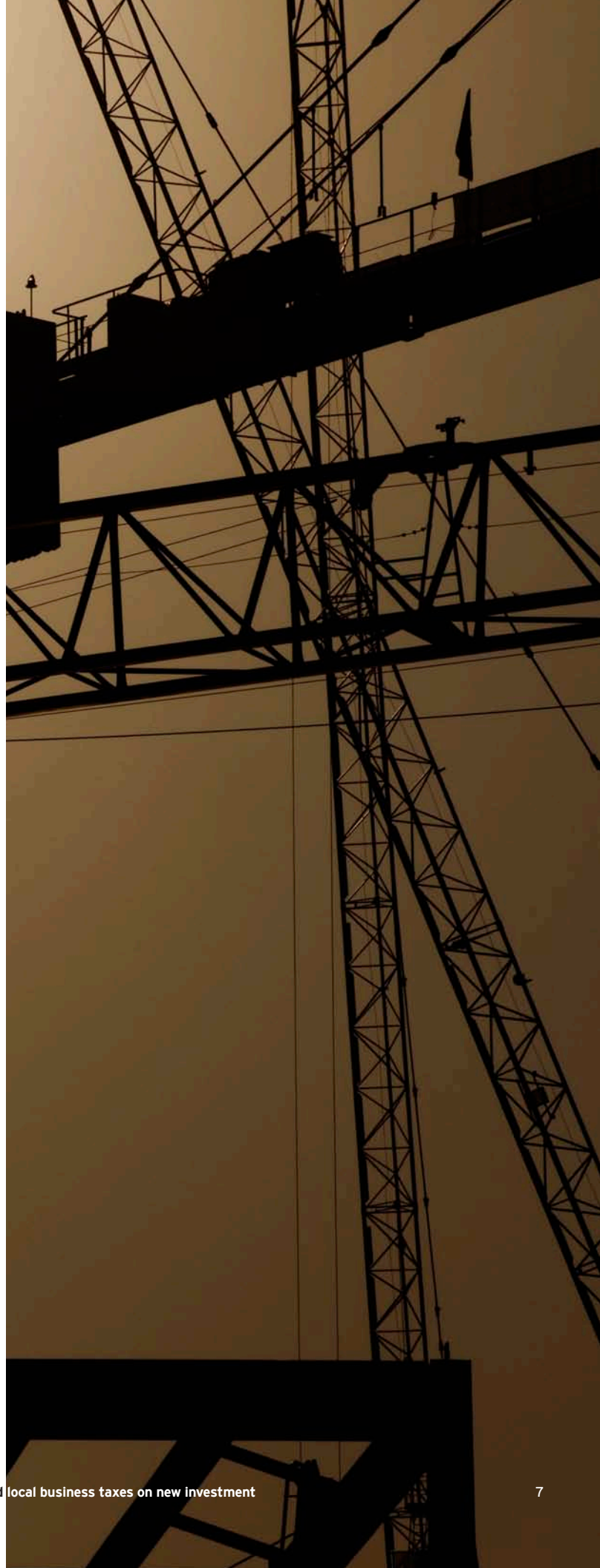
- ▶ The first step of the analysis is the construction of financial profiles for each of the five facility types analyzed. The financial profiles are based on Internal Revenue Service (IRS) Statistics of Income data and other data that include information on assets, liabilities, receipts, deductions 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, sales tax, property tax and net worth taxes. For the types of facilities included in the analysis, these taxes represent the overwhelming majority of total tax liability and provide a good indicator of the level of total state and local tax burden on a new investment.

- ▶ For each tax, the most significant tax system features are incorporated. For corporate/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 tax, state and local sales rates are incorporated along with variations in the tax base for operating inputs and capital investment. The property tax considers tax rates on five major classes of real and personal property, to reflect both the level of the statutory tax rate as well as the breadth of the tax base.
- ▶ Taxes are estimated by year, considering changes in rates and other key tax system features scheduled to occur through 2014 under current law. For example, Indiana is phasing-in single sales factor apportionment through 2011 and the model reflects this phase-in rather than simply relying on the apportionment formula weight in 2009.
- ▶ 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 facility types. The effective tax rate 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 two percentage point decrease, this translates into a 13.3% effective tax rate (the two percentage point decrease divided by the original 15% rate of return). The interpretation of this effective tax rate 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.

## Limitations of the analysis

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

- ▶ As explained in detail in a separate Ernst & Young LLP report, combined reporting may increase or decrease the additional corporate income taxes that the new investments would pay compared to states that require separate filing.<sup>6</sup> Given the fact that the impact of combined reporting is dependent upon the specific U.S.-wide operations of each taxpayer, the index calculations do not include any impact from combined reporting.
- ▶ State and local governments often offer significant discretionary tax credits, tax abatements and cash grants to companies locating a major facility in their state. These negotiated incentive programs vary by jurisdiction and can affect the attractiveness of a location to a potential investor. Similarly, companies locating a facility in an enterprise zone may qualify for reduced tax rates, abatements, or exemptions based on the geographic location of the facility within a state. Because they are not generally available to all taxpayers, neither negotiated incentives nor enterprise zone incentives are included in the analysis.
- ▶ Statutory investment and job-creation tax credits offered by many states can reduce tax costs for several years after the initial investment in a new facility. These credits often vary depending on the level of investment, number of jobs created and geographic location of the investment but are often limited to certain industries. Similarly, research and development credits can offset the ongoing tax costs by providing a credit equal to the incremental or total annual expenditure on research and development. These credits are not included in the analysis.
- ▶ The study's approach is to calculate the before-credit tax burdens on new investments; in other words, the study describes the competitiveness of the general state and local business tax structure, before targeted or negotiated incentives and credits. Significant tax credits are adopted in many states to offset non-competitive features of the general tax structure. Decision-makers need to understand how competitive the general tax system is before evaluating the role of credits and incentives.
- ▶ The analysis examines C corporations, which are the typical legal form of companies making large investments in new facilities. However, companies are increasingly organized as pass-through entities, such as limited liability companies and partnerships, which will incur individual income taxes. For companies organized as pass-through entities, individual income tax will be a significant factor in determining the overall state and local tax burden and is not considered in this analysis.
- ▶ Certain corporate income tax system features can significantly affect the amount of corporate income subject to tax in each state. Two important features not analyzed in this study are the treatment of foreign source income and combined reporting. Certain types of foreign source income from passive investments reported by a corporate taxpayer on its federal tax return are subject to corporate income tax at the state level by certain states, possibly increasing the amount of income subject to apportionment and, typically, the amount of tax.
- ▶ Tax compliance costs and enforcement actions vary across states and can contribute to the overall burden of a state and local business tax system. These costs are not considered in the analysis but can be significant for taxpayers.
- ▶ Unemployment insurance taxes represent a large tax cost for business taxpayers and tend to grow rapidly coming out of a recession as states replenish unemployment insurance funds. Based on the current level of unemployment and the balance of state unemployment trust funds, experience suggests that unemployment insurance contribution rates may increase by more than 50% over the next three years. Because the unemployment insurance contribution is typically determined by



the unemployment benefit claims of an employer's terminated employees, these contributions vary significantly from employer to employer and are not included in the analysis.

- ▶ Other industry-specific taxes are not included in the analysis and can be significant for certain taxpayers. Insurance premium tax, severance tax, utility gross receipts tax and other excise taxes are not included in the analysis but would influence investment decisions for businesses operating in certain industries.
- ▶ Non-tax costs are typically the most significant variable business cost and are not considered in this analysis. For example, in 2008, labor compensation was 30% of total US gross output, making it the most significant operating cost for most industries. Other operating costs such as utilities and freight costs to major suppliers can also influence location decisions. While this analysis identifies only state and local tax cost differences across states, non-tax cost differentials may cause a high tax location to be a more desirable investment location than a low tax location.

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<sup>4</sup> 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.



# Results

The competitiveness analysis determines the combined state and tax liabilities for each type of new investment in each state: headquarters operations, research and development facilities, durable and non-durable manufacturing facilities and office and call center activities.

A key step in determining the competitiveness index is to combine the results for each specific type of facility into an overall result for each state. The combined index is calculated by weighting the tax burdens for each type of activity by the significance of each facility type in the overall mix of business facility investments over the past several years. These weights are calculated from Ernst & Young LLP's study of announced capital investments by companies investing in new or expanded facilities from December 2007 through September 2009.<sup>5</sup> The investment announcements include the projected number of new jobs and amount of capital investments related to new and expanded facilities in each state. Table 1 shows the distribution of announced jobs and capital investments by facility type. The overall tax burden calculations can be weighted by either the distribution of capital expenditures or the distribution of jobs associated with the investments.

Based on the financial profiles and major tax system characteristics described in the appendix and the shares of capital expenditures and jobs shown in Table

1, Table 2 presents the overall burden of major state and local taxes on investments in new or expanded facilities over a 30-year period for each state.

The competitiveness results are summarized by calculating an effective business tax rate for each state. The effective tax rate (ETR) is calculated as the percentage change in the rate-of-return over the 30-year period analyzed. For example, if state and local taxes reduce the before-tax rate of return from 15% to 13%, the effective tax rate is 13.3% (a two percentage point decrease divided by the 15% pre-tax rate of return). The results in the table reflect the average ETRs on hypothetical investments in five different types of facilities: headquarters, research and development, office/call center, durable manufacturing, and non-durable manufacturing. The ETRs for each type of investment are weighted by capital expenditures for each type in deriving the overall competitive index. (See the appendix for results weighted by employment rather than capital expenditures.) The states that are ranked highest in business tax competitiveness have the lowest overall ETRs.

<sup>5</sup>Observed capital investment and employment data as reported in the Ernst & Young LLP US Investment Monitor for various facility types.

**Table 1. Distribution of capital investment and jobs in announced facilities, 2008 to 2009**

Facility type	Capital expenditures	Jobs
Headquarters facility	6%	11%
Research and development facility	3%	5%
Office and call center facility	9%	26%
Durable manufacturing facility	40%	40%
Non-durable manufacturing facility	42%	18%

**Table 2. State and Local Business Tax Competitiveness Index:  
Taxes on New Investment by Selected Industries**

State	Weighted by Capital Investment		Weighted by Jobs	
	ETR	Rank	ETR	Rank
Maine	3.0%	1	4.3%	1
Oregon	3.8%	2	4.4%	2
Ohio	4.4%	3	5.6%	3
Wisconsin	4.5%	4	5.7%	4
Illinois	4.6%	5	6.0%	8
Virginia	5.4%	6	6.6%	10
New Hampshire	5.4%	7	5.9%	6
Delaware	5.7%	8	5.8%	5
Wyoming	5.8%	9	6.4%	9
Minnesota	6.0%	10	7.5%	13
Montana	6.1%	11	6.0%	7
Maryland	6.3%	12	8.7%	25
South Dakota	6.4%	13	7.1%	11
Iowa	6.4%	14	8.1%	18
Kentucky	6.5%	15	7.8%	15
Georgia	6.6%	16	7.9%	16
Utah	6.7%	17	8.0%	17
Colorado	6.8%	18	7.7%	14
Indiana	6.8%	19	8.3%	21
Texas	6.9%	20	8.2%	19
Pennsylvania	7.1%	21	8.3%	20
Missouri	7.1%	22	8.4%	24
New York	7.1%	23	8.9%	27
Michigan	7.2%	24	8.4%	22
Alaska	7.2%	25	7.2%	12
North Dakota	7.3%	26	8.4%	23
Florida	7.4%	27	8.7%	26
New Jersey	7.5%	28	9.2%	31
California	7.7%	29	10.0%	35
Idaho	7.7%	30	9.1%	30
Vermont	7.8%	31	9.0%	29
Massachusetts	8.2%	32	9.7%	34
Nevada	8.2%	33	8.9%	28
North Carolina	8.6%	34	10.2%	36
Oklahoma	8.8%	35	10.5%	38
Arkansas	8.9%	36	10.5%	39
South Carolina	8.9%	37	9.5%	33
Connecticut	8.9%	38	9.4%	32
Arizona	9.3%	39	11.0%	42
Washington	9.4%	40	12.4%	47
Nebraska	9.4%	41	10.2%	37
West Virginia	9.7%	42	10.9%	41
Alabama	9.7%	43	11.0%	44
Mississippi	10.2%	44	10.8%	40
Tennessee	10.3%	45	11.8%	45
Hawaii	10.8%	46	11.0%	43
Louisiana	11.1%	47	12.0%	46
Kansas	11.2%	48	12.5%	48
Rhode Island	11.5%	49	13.4%	49
District of Columbia	16.6%	50	16.7%	50
New Mexico	16.6%	51	17.9%	51
50-state mean	7.9%		9.1%	
50-state median	7.3%		8.7%	



The ETR for each of the hypothetical investments varies significantly by the type of facility. Weighting these results by capital investment, as shown in the left section of Table 2, places more importance on the effective tax rate on investments by capital intensive industries with the largest capital expenditures, such as manufacturing industries. The right section of Table 2, which weights the results by the number of jobs created by each facility type, presents an alternative view of the relative level of business tax burdens that puts more weight on the effect of state and local business taxes on labor intensive service activities.

As shown in Table 2, Maine's business tax structure imposes the smallest burden on new investment for the selected industries analyzed with an overall index of 3.0%, when weighted by capital investment. This relatively low burden is due to the following factors:

- ▶ Maine uses a single sales factor corporate income apportionment formula. While Maine's corporate tax rate is higher than average (8.93% in Maine compared to 6.7% nation-wide), Maine's favorable income apportionment regime more than offsets the rate differential for the hypothetical investments included in the competitiveness index.
- ▶ Maine has an average property tax rate. Maine's real property tax rate (in Portland) is 1.69% compared to a national average of 1.97%. Personal property tax rates in Maine are slightly above average at 1.77% compared to a national average of 1.65%, but new equipment is exempt from the property tax and any local property tax paid on qualified equipment is refunded through the Business Equipment Tax Reimbursement Program.
- ▶ Maine has no franchise tax.
- ▶ Maine's combined state and local sales tax rate is one of the lowest in the nation (5% compared to a national average of 6.2%)

Oregon's business tax structure imposes the second smallest burden on new investment for the selected industries analyzed, reducing the rate of return by an average 3.8% when weighted by capital investment. This relatively low state and local tax burden (effective tax rate) results from several factors:

- ▶ Oregon uses a single sales factor corporate income apportionment formula, meaning that the hypothetical investment in a new facility will have a very small impact on the amount of corporate income subject to tax in Oregon due to sales outside of Oregon.
- ▶ Oregon imposes no sales tax on business inputs. Two of the five facilities analyzed are service-oriented operations that do not generally qualify for manufacturing sales tax exemptions available in many states. Because many of the operating inputs purchased by these facilities are subject to state and local sales tax, Oregon's lack of sales tax is a significant benefit.
- ▶ While Portland, Oregon has a slightly higher than average tangible personal property tax (2.11% in Oregon compared to 1.65% nation-wide), it imposes a below average tax on real property (1.07% in Oregon compared to 1.97% nation-wide).
- ▶ Oregon imposes no franchise tax. For the headquarters location especially, franchise tax can be a significant tax expense because it is a tax on a taxpayer's net worth

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<sup>6</sup>Robert Cline, "Combined Reporting: Understanding the Revenue and Competitive Effects of Combined Reporting," State Tax Notes, May 30, 2008. The study was prepared for the Council on State Taxation. Combined reporting could produce higher corporate income taxes on the new capital investments, compared to separate filing, if combination increases the profits per dollar of factors attributable to the state. In this case, combined reporting states would have higher corporate tax burdens than calculated in the competitiveness index.



Ohio has the third lowest overall business effective tax rate. Ohio's high business competitiveness ranking reflects the major business tax reforms adopted in 2005 that substituted the modified gross receipts tax for corporate income and franchise taxes and eliminated business tangible personal property taxes. The modified gross receipts tax uses destination sales to determine Ohio tax liabilities and significantly lowers taxes on businesses making new in-state investments. The remaining top-ten states in terms of business tax competitiveness all have ETRs less than or equal to 6%.

For the selected facility types, New Mexico's state and local business tax system imposes the greatest tax burden of any state, reducing the rate of return by an average 16.9%. This relatively high tax burden results from several factors:

- ▶ New Mexico uses an equally weighted corporate income apportionment formula. New Mexico's formula apportions to the state a share of national income equal to the average of the percentage of the taxpayer's nation-wide sales, payroll and property in the state. For the hypothetical facilities, this means that roughly two thirds of the additional income attributable to the new investment will be subject to tax in New Mexico. In addition, New Mexico's corporate tax rate is slightly above average (7.6% in New Mexico compared to a nation-wide average of 6.7%).

- ▶ New Mexico imposes a gross receipts tax on virtually all business activity. The tax is levied at a relatively high tax rate for a gross receipts tax (5.125% at the state level) plus a local tax comparable to retail sales taxes. However, unlike a retail sales tax, it applies to most services. While this tax is technically a liability of the seller, in practice it is passed forward to purchasers and is typically stated separately on invoices. Therefore, this analysis treats the tax as a sales tax with few exemptions, resulting in a significant tax burden for facilities that purchase a large amount of services and other inputs typically exempt from state and local sales taxes. In sharp contrast to New Mexico, Ohio, ranked the 4th most competitive state, imposes a gross receipts tax at a rate of 0.26%.

- ▶ New Mexico taxes both real and tangible personal property, although the property tax rate in Albuquerque is slightly below average.

The business tax competitiveness index shows the large difference in business tax burdens among the states. Based on the ETRs presented in Table 2, the average state and local business tax burden in the 10 most competitive states (5.0%) is only 42% as large as the average tax burdens for the 10 least competitive states (11.8%). The results also show that more than 20 states have business tax burdens that vary in the narrow range of 6% to 8%.

## Results by facility type

Because of differing levels of profitability, capital intensity, and taxable input purchases, state and local business taxes affect each facility type differently. Table 3 shows the composition of the total tax burden on each facility type analyzed in this study.

As shown in Table 3, service facilities such as business support and research facilities pay more sales tax as a share of their total state and local tax burden than other types of facilities. This higher sales tax burden results from the lack of sales tax exemptions for most input purchases by service facilities compared to manufacturing facilities that generally receive sales tax exemptions for their purchases of inputs used in the production process.

In contrast, manufacturing industries pay significantly more property tax as a share of their total state and local tax burden than service industries. This higher-than-average property tax burden results from the higher average capital intensity of these facilities and their significant investments in personal property, which is often taxed at a higher property tax rate than real property.

Headquarters facilities generate the largest share of their tax liability from business income taxes due to their typically high profitability per dollar of receipts and assets. In contrast to other facility types, these headquarters facilities have generally low operating expenses and depreciable property relative to profits, reducing the significance of these other taxes on headquarters location decisions.

## Conclusion

The Ernst & Young LLP/COST state business tax competitive index is a useful ranking for companies and policy-makers to assess the relative state and local tax burden on mobile business investment. The index includes all major business taxes, incorporating key features of the rates and tax bases, and weights the different taxes by their relative size. The index also focuses on five types of mobile corporate investments, which would be most likely to affect the location decisions of multistate and multinational businesses. The index distinguishes between destination and origin-based taxes, the latter of which affect the relative production costs of particular locations.

**Table 3. Distribution of effective tax rates by facility type and tax type**

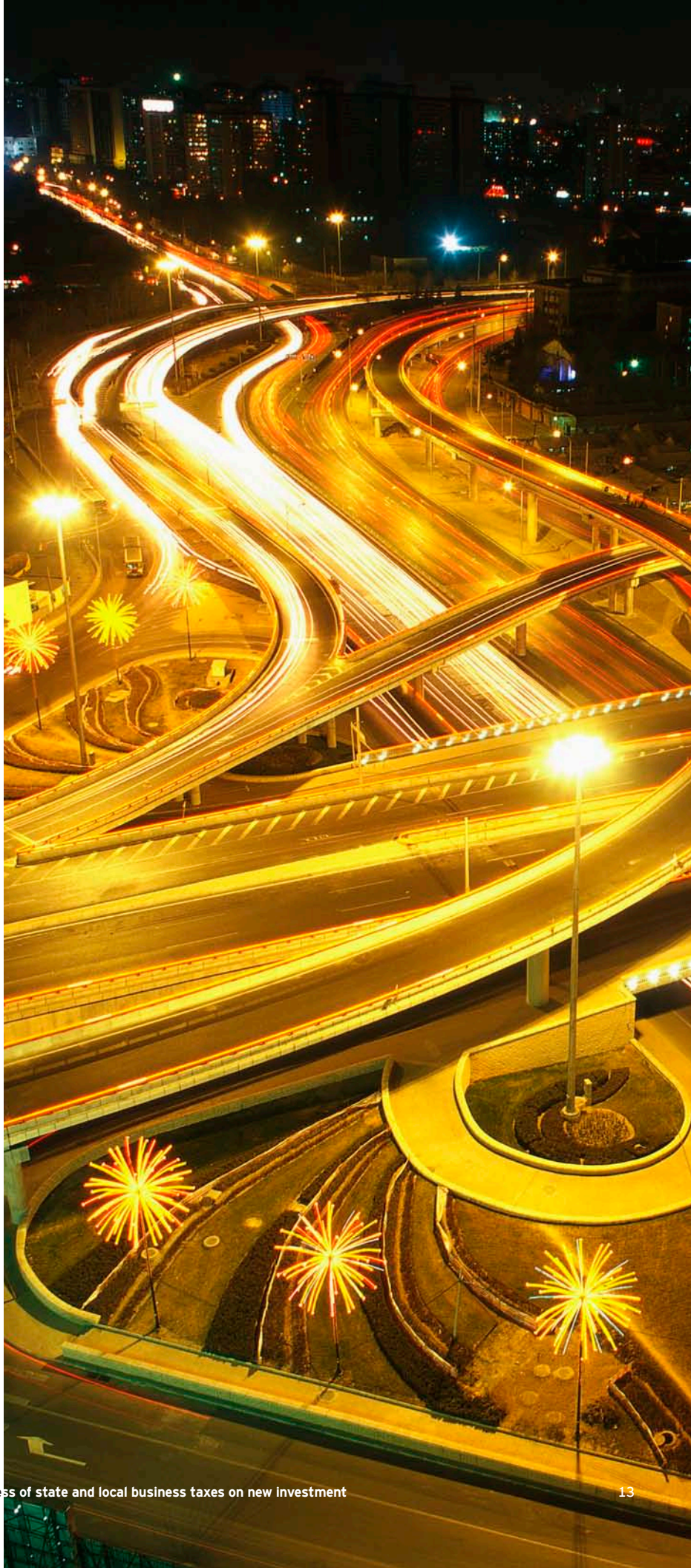
Tax type	Headquarters facility	Research and development facility	Office and call center facility	Durable manufacturing facility	Non-durable manufacturing facility
Sales tax	0.16%	4.20%	10.14%	3.31%	1.87%
Corporate/business taxes	2.51%	3.41%	3.65%	2.46%	2.42%
Property tax	0.12%	1.61%	0.81%	2.79%	2.19%
<b>Total effective tax rate</b>	<b>2.79%</b>	<b>9.21%</b>	<b>14.61%</b>	<b>8.56%</b>	<b>6.48%</b>

Amounts may not appear to sum due to rounding.

Any index or state ranking has certain limitations, and these are clearly spelled out in the report. Nonetheless, the new Ernst & Young LLP/COST state business tax competitiveness index can help companies narrow the number of states to do more thorough tax and non-tax location comparison. And the index provides government policy-makers and their staffs with an empirical-based, objective measure of the relative tax burden of state business taxes on mobile investments.

The report shows very different rankings than simple comparisons of statutory tax rates. As corporate tax departments know, the details of different taxes matter greatly and factors like apportionment formula weights can be more significant than statutory tax rates for certain taxpayers. The analysis also shows that non-income taxes such as the property and sales tax are often more important than state income tax in cross-state tax comparisons.

Ernst & Young LLP will continue to make refinements to the index in future releases. We hope the information is helpful, and a useful supplement to the other Ernst & Young LLP state tax publications, including the annual Ernst & Young LLP /COST 50-state business tax study, the annual U.S. Investment Monitor tracking the locations of new mobile capital investments, and the recent Ernst & Young LLP study analyzing the economic incidence of state business taxes.



# Appendix



# Modeling methodology and assumptions

This appendix provides additional description of the modeling approach, assumptions and data used in the analysis.

## Financial profile

The business tax competitiveness modeling begins with the development of a financial and operating profile for each hypothetical company. Financial profiles are developed for each hypothetical company (one per industry) using average balance sheet and income statement information for all firms in each industry from federal tax return information reported by the IRS in Statistics of Income Corporate Tax Reports. The federal corporate tax data includes business receipts, other income, depreciable and financial assets, equity and liabilities, cost of goods sold, and selected other operating expenses reported on federal corporate tax returns.

The federal corporate tax data is then supplemented with detailed data from the Bureau of Economic Analysis (BEA) describing the distribution of assets and operating expenses by industry. The distribution of assets, from BEA's fixed asset data, shows the net value (after depreciation) of each type of structure and equipment owned by each industry. Similarly, detailed operating expense information from the BEA's input-output tables is used to disaggregate "other deductions" reported on the federal tax return into detailed operating expense categories.

The assumed financial profile for each hypothetical investment is summarized in Table A-1. The table shows the level of key financial metrics per dollar of investment. The financial profile of the investments influences the calculation of the tax bases and the significance of each tax type in the overall business tax liability. For example, firms with high levels of depreciable assets and land per dollar of business receipts and income will be more affected by property taxes, while firms that have high levels of profit per dollar of assets or receipts will be more affected by corporate income taxes.

The financial profiles are projected for a 30-year period. This multiyear perspective recognizes differences in the timing of tax provisions, such as depreciation allowances and scheduled, current-law changes in tax rates and other tax features. For example, sales taxes on investments occur initially and at intervals when investment is replaced over time. In contrast, property and corporate income taxes are an annual expense that the business will incur in each of the 30 years. This multiyear perspective also enables the calculation of the present value of the tax stream, recognizing that taxes that are paid sooner have more of a negative impact on the investor's return from the investment.

An important note is that while the analysis attempts to isolate the taxes that would result from an investment in specific types of facilities, most facilities will be operated as part of a larger entity involved in many different activities. For example, the financial profile for the research and development facility is based on tax return information and economic data for the research industry (NAICS 5417), but many research and development facilities are operated by companies in the manufacturing sector. Because the IRS does not report financial data by facility or operating unit, this analysis is based on industry-level information that most closely approximates the activities occurring at each of the hypothetical facility types.<sup>7</sup>

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<sup>7</sup>This assumption has limited impact on the estimates of the sales taxes and property taxes because these taxes are, in most cases, determined by the type and use of property rather than by the type of purchaser. However, corporate income taxes may be affected if, for example, the taxpayer can qualify for special apportionment or other preferential treatment because of activities conducted by another part of the business.



**Table A-1. High-level financial profile of hypothetical investments  
(amounts shown as a percentage of invested assets)**

	Headquarters facility	Research and development facility	Office and call center facility	Non-durable manufacturing facility	Durable manufacturing facility
<b>Assets and liabilities</b>					
Depreciable assets and land	0.7%	11.2%	13.8%	9.3%	13.9%
Cash and other current assets	25.3	27.7	39.1	41.2	21.3
Investments and intangibles	68.6	53.4	42.8	44.9	57.5
Other assets	5.4	7.7	4.3	4.7	7.3
<b>Total assets</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Equity	72.4	47.4	38.1	31.6	35.9
Debt and other liabilities	27.6	52.6	61.9	68.4	64.1
<b>Total equity and liabilities</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Receipts and deductions</b>					
Business receipts	0.4%	49.8%	242.1%	53.8%	101.1%
Other receipts	11.2	11.2	7.3	3.4	6.1
<b>Total receipts</b>	<b>11.7%</b>	<b>61.0%</b>	<b>249.4%</b>	<b>57.2%</b>	<b>107.2%</b>
Cost of goods sold	0.1%	14.7%	112.7%	36.7%	75.7%
Interest	1.2	1.3	2.3	1.6	3.1
Depreciation*	0.1	2.2	2.5	0.9	1.7
Other expenses	1.7	33.3	114.9	13.2	21.1
<b>Total deductions</b>	<b>3.1%</b>	<b>51.4%</b>	<b>232.4%</b>	<b>52.3%</b>	<b>101.6%</b>
Net income	8.6	9.6	17.0	4.9	5.6
Note: Total labor cost**	0.5	26.9	97.4	7.7	18.2

Source: Internal Revenue Service Statistics of Income, Corporate Source Book, 2006.

\*Includes depreciation, depletion and amortization.

\*\*Includes imputed labor embedded in cost of goods sold deduction, salaries and wages, compensation of officers, employee benefit programs, pension and profit-sharing.

Amounts may not appear to sum due to rounding.



## Modeling assumptions

The modeling approach used in this analysis requires certain assumptions about the distribution of nation-wide sales, ongoing replacement of depreciating assets and other operational and financial characteristics. These tax features can have a significant impact, for example, on comparative corporate income tax liabilities.

There are a number of key assumptions related to the corporate income tax. Nation-wide corporate income of a multistate company is apportioned to each state based partially or wholly on the share of the company's nation-wide sales attributable to the state. A state's share of sales from a new or expansion investment will vary by type of activity and sales sourcing rules. This analysis makes the assumption that 5% of a manufacturing company's additional sales resulting from the investment will be sold in the state where the facility investment is located. The other 95% of sales are assumed to be sold in other states. For activities primarily involving the sales of services, two different percentages are used for in-state sales, 20% in states with market based sourcing and 30% in states with cost of performance. The analysis assumes that the share of in-state sales is the same in every state to maintain comparability between the results for each state.<sup>8</sup>

While the analysis assumes that only a portion of the sales from the new facility is in-state, the estimates assume that all of the payroll and property related to the expansion are in-state. In other words, by locating the expansion in a specific state, the analysis assumes that all of the additional employees and property are also located in the state.

Another important assumption relates to depreciating property. The analysis assumes that as equipment and structures are used and depreciated, they are replaced. The result of this assumption is that the level of assets and property potentially subject to the property tax is constant over the 30-year time horizon.

Finally, the analysis assumes that the investment is an expansion by a company that already has a significant presence in the state, is profitable and would incur additional state corporate income tax liability at the highest marginal tax rate. This is generally consistent with the operations of a large, multistate taxpayer that has operations in a number of states.

## State and local tax system features

The current-law statutory tax components, including tax rates and tax base calculations, for each of the major state and local business taxes in each state, are incorporated into the analysis. State and local taxes included in this report are: corporate income taxes, corporate franchise taxes, sales and use taxes on business input purchases, gross receipts taxes and property taxes. Sales and use taxes collected from customers by the representative firm are not included as business taxes. The BTCM calculations include depreciation allowances and apportionment formulas for each corporate expansion. Except where noted, tax rates and other tax system characteristics reflect statewide averages that combine state and local tax rates, such as sales taxes or average over geographic locations, such as property taxes.

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<sup>8</sup>The results are sensitive to changes in this assumption. If the assumed percentage of sales in-state is increased to 20% for manufacturers, 30% for service providers using market sourcing and 40% for service providers using cost of performance, states with high corporate tax rates and single sales factor apportionment formulas are less competitive. If all of the marginal sales are assumed to be made to in-state customers, some states with high corporate tax rates and single sales factor apportionment become significantly less competitive. Oregon, which is ranked second most competitive in our base case, moves to least competitive if all of the sales from the hypothetical facilities are assumed to be sold in the state.

## Corporate income tax and other business entity taxes

Corporate income taxes and other types of general business entity taxes are in place in 46 states and the District of Columbia. In most states, the business entity tax is based on corporate income, but a recent trend has been the movement toward taxes based on modified gross receipts. Table A-2 shows the basic features of each state's general business entity tax, including the general rate, type of tax base, special apportionment allowed for select industries and apportionment formula weighting. As discussed below, each of these factors is significant in determining the overall burden of the business entity tax on the hypothetical firms making investments in the state.

**Tax rate:** In states taxing corporate income, the rate ranges from 4.6% in Colorado to 12.0% in Iowa. In addition, Ohio's commercial activity tax based on gross receipts has a rate of 0.26%, the Texas margin tax on modified gross receipts has a general rate of 1.0%, and the Michigan business tax has a permanent rate of 0.8% on modified gross receipts (in addition to a 4.94% tax on corporate net income). New Hampshire levies its business enterprise tax on value-added at 0.75% as a form of minimum business tax. Washington imposes its business and occupation tax on gross income at varying rates. Note that since the analysis was completed, Illinois increased its total corporate tax rate (base rate plus personal property replacement) from 7.3% to 9.5 until 2015, when it will drop to 7.75% through 2025. This change is not reflected in the results because it was not current law in 2009. However, due to Illinois' single sales factor apportionment formula and the assumptions used in this analysis about the percentage of in-state sales, the impact of this change on Illinois' ranking is relatively minor.

**Tax base:** Corporate net income is the most common business entity tax base, but as noted above, there has been a movement over the past several years to broader tax bases based on gross receipts. Among the states that tax corporate income, most use similar definitions of net income with most beginning with federal income definitions with certain state adjustments.

**Apportionment formula:** The state corporate income apportionment formula rivals the tax rate as the most important feature of state business entity tax systems in this analysis because of the assumption that a relatively small portion of increased sales from the facility is sold to in-state customers. In order for multistate corporations that earn income across the United States to be taxed by each state, they must determine what share of their national income is attributable to each state. The method used is described as formulary apportionment. The typical apportionment formula uses a corporation's sales, payroll and property located in a state divided by those same factors everywhere to determine what percentage of its nation-wide income is attributable to the state.

Many states use what is called a double-weighted sales factor apportionment formula. This method of apportionment applies a weight of 50% to the sales ratio (in-state sales divided by everywhere sales). This formula simultaneously reduces the importance of payroll and property in determining a state's tax base. The significance of this factor weighting is that the location of sales is twice as important as the other factors.

An increasing number of states have moved to apportionment formulas based entirely on the sales factor. These states, which are described as having "single sales factor" income apportionment formulas, tax a share of US income equal to the state's share of the taxpayer's US sales. As noted in the results section, corporate income apportionment formulas significantly impact the tax burden on an investment by a firm exporting a large share of its output from the state.

The sales factor is also affected by the sourcing rules used to determine in which state a sale occurs. For manufacturing and retail companies that sell tangible property to their customers, the sales are generally sourced to the state where goods are shipped (referred to as “destination sales”). For companies selling services, the sales are sourced to the location where the service is used (referred to as “market sourcing”) or the location where the service is provided (referred to “cost of performance sourcing”). As discussed above, the competitiveness analysis assigns different in-state sales percentages to the different types of activities included in the analysis. For states with single sales factor apportionment of corporate income, differences in the share of in-state sales can have a large impact on the overall apportionment formula for different types of activities.

## Sales tax

Forty-seven states and the District of Columbia levy state-level sales taxes, with an additional 34 states levying local sales taxes. The sales taxes included in the competitiveness index are those paid by businesses on taxable input purchases, including tangible property and services.

**Tax rate:** Sales tax rates vary significantly across states. (See Table A-3.) The combined state and local sales tax rate averages 6.2%, ranging from 4.0% in Hawaii to 10.6% in California. The local tax rate reflects the statewide average local tax rate, which was estimated using the ratio of local sales tax collections to state sales tax collections for each state (from the U.S. Census Bureau), multiplied by the state sales tax. For example, if a state with a 4% state tax rate had local tax collections that were 50% of state tax collections, the local tax rate is assumed to equal 2% (50% of the state rate).

**Tax base:** The definition of the state sales tax base can significantly affect the overall level of sales tax resulting from a new investment in a state over the life of that investment. States differ in the way in which they tax purchases of capital equipment and the construction of buildings. In many states, the purchase of equipment or construction of structures that will be used in a production process is exempt from tax or subject to a significantly reduced tax rate. Similarly, during the operating life of a facility, certain exemptions may be given for purchases of utilities and purchased materials that are consumed in a manufacturing

process. These differences in the state sales tax base are incorporated into the analysis and contribute to significant variations in the total sales tax burden for the hypothetical investments analyzed in this report.

## Property tax

Property taxes are levied by both state and local governments. As with the other major tax types, the tax rate and tax base are equally important factors in determining the overall tax burden for the hypothetical investments analyzed. Due to the general lack of centralized local property tax data, the BTCM uses property tax rates for the largest city in each state. While the rate in the largest city is generally indicative of local governments’ reliance on the property tax as a source of revenue, it may diverge significantly from the average in a state.

**Tax rate:** Average real effective property tax rates vary across the major metropolitan areas included in this study from 0.65% in Virginia Beach, Virginia to 4.35% in Des Moines, Iowa. (See Table A-4.) Similarly, effective tangible personal property rates vary significantly across those states that tax personal property, from 0.67% in Cheyenne, Wyoming to 5.67% in Baltimore City, Maryland. The effective property tax rates reflect the statutory property tax rate multiplied by the assessment ratio for each type of property. For example, a jurisdiction that assesses property at 50% of market value and has a tax rate of 2% would have a 1% effective tax rate on property (50% of 2%).

**Tax base:** The major types of property subject to local taxation are real and personal property. Real property, consisting of land and structures, is taxed in all states. In addition, 38 states and the District of Columbia also tax tangible personal property, while 12 states exempt tangible personal property completely. For the hypothetical investment analyzed in this report, tangible personal property consists of manufacturing equipment; furniture, fixtures, non-manufacturing equipment; and motor vehicles. Of the states that tax tangible personal property, four states exempt manufacturing equipment from the tax base, significantly reducing the property tax burden for the manufacturing investments analyzed.

Table A-2. State Business Entity Tax Characteristics, 2009

State	Top marginal rate	Apportionment weighting	Special apportionment for selected industries	Business income tax base
Alabama	6.50%	Equally weighted	No	Corporate income
Alaska	9.40%	Equally weighted	No	Corporate income
Arizona	6.97%	Double weighted sales	No	Corporate income
Arkansas	6.50%	Double weighted sales	No	Corporate income
California	8.84%	Double weighted sales	No	Corporate income
Colorado	4.63%	Single sales factor	No	Corporate income
Connecticut	7.50%	Single sales factor	Yes	Corporate income
Delaware	8.70%	Equally weighted	No	Corporate income
District of Columbia	9.98%	Equally weighted	No	Corporate income
Florida	5.50%	Double weighted sales	No	Corporate income
Georgia	6.00%	Single sales factor	Yes	Corporate income
Hawaii	6.40%	Equally weighted	No	Corporate income
Idaho	7.60%	Double weighted sales	Yes	Corporate income
Illinois	7.30%	Single sales factor	No	Corporate income
Indiana	8.50%	80% Weighted sales	No	Corporate income
Iowa	12.00%	Single sales factor	No	Corporate income
Kansas	7.05%	Equally weighted	Yes	Corporate income
Kentucky	6.00%	Double weighted sales	No	Corporate income
Louisiana	8.00%	Equally weighted	Yes	Corporate income
Maine	8.93%	Single sales factor	No	Corporate income
Maryland	8.25%	Double weighted sales	Yes	Corporate income
Massachusetts	9.50%	Double weighted sales	Yes	Corporate income
Michigan	4.95%	Single sales factor	No	Corporate income and gross receipts
Minnesota	9.80%	84% weighted sales	No	Corporate income
Mississippi	5.00%	Single sales factor	Yes	Corporate income
Missouri	6.25%	Single sales factor	No	Corporate income
Montana	6.75%	Equally weighted	No	Corporate income
Nebraska	7.81%	Single sales factor	No	Corporate income
Nevada	-	-	-	-
New Hampshire	8.50%	Double weighted sales	No	Corporate income and value added
New Jersey	9.00%	Double weighted sales	No	Corporate income
New Mexico	7.60%	Equally weighted	Yes	Corporate income
New York	7.10%	Single sales factor	No	Corporate income

State	Top marginal rate	Apportionment weighting	Special apportionment for selected industries	Business income tax base
North Carolina	7.11%	Double weighted sales	No	Corporate income
North Dakota	6.40%	Equally weighted	No	Corporate income
Ohio	0.26%	Single sales factor	No	Gross receipts
Oklahoma	6.00%	Equally weighted	No	Corporate income
Oregon	7.90%	Single sales factor	No	Corporate income
Pennsylvania	9.99%	83% weighted sales	No	Corporate income
Rhode Island	9.00%	Equally weighted	No	Corporate income
South Carolina	5.00%	Single sales factor	Yes	Corporate income
South Dakota	-	-	-	-
Tennessee	6.50%	Double weighted sales	No	Corporate income
Texas	1.00%	Single sales factor	No	Modified gross receipts
Utah	5.00%	Double weighted sales	No	Corporate income
Vermont	8.50%	Double weighted sales	No	Corporate income
Virginia	6.00%	Double weighted sales	Yes	Corporate income
Washington	Multiple	-	-	Gross receipts tax
West Virginia	8.50%	Double weighted sales	No	Corporate income
Wisconsin	7.90%	Single sales factor	No	Corporate income
Wyoming	-	-	-	-

Notes: AZ has an election for 80% sales weight; CA has adopted optional 100% sales factor apportionment as of 2011 - this analysis assumes each firm uses 100% sales apportionment; CT 50% weighted sales, selected industries; KS manufacturers may use 100% sales factor and selected industries may use 2-factor formula (prop. and sales); LA allows 100% sales weight for manufacturers and 2-factor formula (payroll and sales) for services; MD manufacturers must use 100% sales weight; MA 100% sales weight formula available for manufacturers; MI taxpayers pay tax on both bases; MS has alternative formulas for manufacturers; MO 100% sales weight is elective (standard is equally weighted); NM manufacturers may use 50% sales weight; SC is phasing in the 100% sales factor weight for manufacturers (allows 60% of tax reduction in 2009); UT's 50% sales weight is elective (standard is equally weighted)



Table A-3. State Sales Tax Characteristics, 2009

State	State rate	Local rate	Total state and local tax rate
Alabama	4.0%	3.1%	7.1%
Alaska	0.0%	0.0%	0.0%
Arizona	5.6%	2.3%	7.9%
Arkansas	6.0%	1.8%	7.8%
California	8.3%	2.3%	10.6%
Colorado	2.9%	3.8%	6.7%
Connecticut	6.0%	0.0%	6.0%
Delaware	0.0%	0.0%	0.0%
District of Columbia	6.0%	0.0%	6.0%
Florida	6.0%	0.4%	6.4%
Georgia	4.0%	2.7%	6.7%
Hawaii	4.0%	0.0%	4.0%
Idaho	6.0%	0.0%	6.0%
Illinois	6.3%	1.1%	7.3%
Indiana	7.0%	0.0%	7.0%
Iowa	6.0%	1.8%	7.8%
Kansas	5.3%	1.8%	7.1%
Kentucky	6.0%	0.0%	6.0%
Louisiana	4.0%	4.1%	8.1%
Maine	5.0%	0.0%	5.0%
Maryland	6.0%	0.0%	6.0%
Massachusetts	6.3%	0.0%	6.3%
Michigan	6.0%	0.0%	6.0%
Minnesota	6.9%	0.1%	7.0%
Mississippi	7.0%	0.0%	7.0%
Missouri	4.2%	2.3%	6.5%
Montana	0.0%	0.0%	0.0%
Nebraska	5.5%	0.9%	6.4%
Nevada	6.9%	0.7%	7.5%
New Hampshire	0.0%	0.0%	0.0%
New Jersey	7.0%	0.0%	7.0%
New Mexico	5.0%	1.9%	6.9%
New York	4.0%	4.1%	8.1%
North Carolina	5.8%	2.1%	7.9%

State	State rate	Local rate	Total state and local tax rate
North Dakota	5.0%	0.9%	5.9%
Ohio	5.5%	1.2%	6.7%
Oklahoma	4.5%	3.3%	7.8%
Oregon	0.0%	0.0%	0.0%
Pennsylvania	6.0%	0.1%	6.1%
Rhode Island	7.0%	0.0%	7.0%
South Carolina	6.0%	0.2%	6.2%
South Dakota	4.0%	1.5%	5.5%
Tennessee	7.0%	1.7%	8.7%
Texas	6.3%	1.5%	7.7%
Utah	4.7%	1.5%	6.2%
Vermont	6.0%	0.1%	6.1%
Virginia	4.0%	1.0%	5.0%
Washington	6.5%	1.3%	7.8%
West Virginia	6.0%	0.0%	6.0%
Wisconsin	5.0%	0.3%	5.3%
Wyoming	4.0%	1.3%	5.3%

Source: RIA Checkpoint and CCH State Tax Reporters



**Table A-4. Effective Property Tax Rates, 2009**

State	Commercial structures	Industrial structures	Commercial equipment	Other industrial machinery and equipment
Alabama	1.37%	1.37%	1.39%	1.39%
Alaska	1.46%	1.46%	0.96%	0.96%
Arizona	1.95%	1.95%	2.35%	2.38%
Arkansas	1.38%	1.38%	1.41%	1.41%
California	1.22%	1.22%	1.22%	1.22%
Colorado	1.90%	1.90%	1.94%	1.94%
Connecticut	2.71%	2.71%	2.71%	1.08%
Delaware	0.87%	0.87%	0.00%	0.00%
District of Columbia	1.73%	1.73%	3.25%	3.37%
Florida	1.56%	1.56%	1.65%	1.66%
Georgia	1.62%	1.62%	1.77%	1.77%
Hawaii	1.06%	1.21%	0.00%	0.00%
Idaho	1.33%	1.33%	1.44%	1.44%
Illinois	2.44%	2.83%	0.00%	0.00%
Indiana	2.60%	2.71%	2.75%	2.75%
Iowa	4.35%	4.35%	0.00%	0.00%
Kansas	2.76%	2.76%	3.01%	3.01%
Kentucky	1.14%	1.14%	1.81%	0.15%
Louisiana	1.98%	1.98%	2.13%	2.13%
Maine*	1.69%	1.69%	0.00%	0.00%
Maryland	2.02%	2.02%	5.67%	0.00%
Massachusetts	2.30%	2.30%	2.71%	0.00%
Michigan*	4.12%	4.15%	3.55%	1.92%
Minnesota	3.35%	3.35%	0.00%	0.00%
Mississippi	2.41%	2.41%	2.56%	2.56%
Missouri	3.02%	3.02%	2.64%	2.64%
Montana	1.29%	1.29%	1.72%	1.72%
Nebraska	1.97%	1.97%	2.05%	2.05%
Nevada	1.11%	1.11%	1.14%	1.14%
New Hampshire	1.83%	1.83%	0.00%	0.00%
New Jersey	1.67%	1.67%	0.00%	0.00%
New Mexico	1.44%	1.44%	1.55%	1.55%
New York	3.88%	3.88%	0.00%	0.00%

State	Commercial structures	Industrial structures	Commercial equipment	Other industrial machinery and equipment
North Carolina	1.08%	1.08%	1.30%	1.30%
North Dakota	2.03%	2.03%	0.00%	0.00%
Ohio	2.20%	2.22%	0.00%	0.00%
Oklahoma	1.25%	1.25%	1.56%	1.56%
Oregon	1.07%	1.07%	2.11%	2.11%
Pennsylvania	4.12%	4.12%	0.00%	0.00%
Rhode Island	2.57%	2.57%	5.36%	0.00%
South Carolina	1.73%	3.30%	4.75%	4.75%
South Dakota	1.46%	1.46%	0.00%	0.00%
Tennessee	2.89%	2.89%	2.16%	2.16%
Texas	2.36%	2.52%	2.54%	2.52%
Utah	1.36%	1.36%	1.38%	1.38%
Vermont	2.08%	2.08%	0.85%	0.85%
Virginia	0.65%	0.65%	1.48%	0.33%
Washington	0.71%	0.71%	0.78%	0.78%
West Virginia	1.67%	1.67%	1.67%	1.67%
Wisconsin	2.27%	2.27%	2.27%	0.00%
Wyoming	0.65%	0.78%	0.67%	0.82%

Source: 50-State Property Tax Comparison Study prepared cooperatively by Member States of the National Taxpayers Conference, June 2009

Note: some states allow an exemption for new machinery and equipment. These states are shown as having a 0.0% rate on equipment.

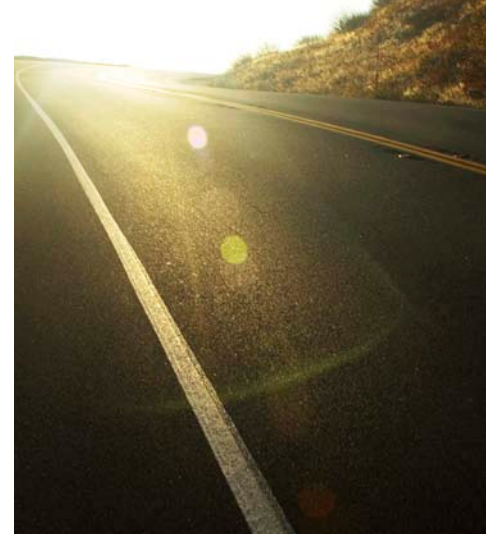
\*adjusted by the amount of credit available for property taxes paid

## Franchise tax

State franchise taxes are typically levied on the net worth of a company, although some states have adopted alternative bases that include the value of property held in the state. As shown in Table A-5, only 20 states levy a franchise tax, with most taxes levied on the value of capital stock (the sum of stockholder equity, paid-in capital, and retained earnings). Because of the large size of the tax base, the average franchise tax rate is very low, 0.07%, and ranges from 0.01% in Delaware to 0.48% in West Virginia.

**Table A-5. State Franchise Tax Characteristics, 2009**

State	Rate	Apportionment weighting	Franchise tax base
Alabama	0.18%	Equally weighted	Capital stock
Alaska	-	-	-
Arizona	-	-	-
Arkansas	0.30%	Equally weighted	Capital stock
California	-	-	-
Colorado	-	-	-
Connecticut	0.31%	100% property	Capital stock
Delaware	0.01%	Equally weighted	Capital stock
District of Columbia	-	-	-
Florida	-	-	-
Georgia	0.05%	50% weighted sales	Capital stock
Hawaii	-	-	-
Idaho	-	-	-
Illinois	0.10%	50% weighted sales	Capital stock
Indiana	-	-	-
Iowa	-	-	-
Kansas	0.06%	Equally weighted	Capital stock
Kentucky	-	-	-
Louisiana	0.30%	50% weighted sales	Capital stock
Maine	-	-	-
Maryland	-	-	-
Massachusetts	0.26%	Equally weighted	Capital stock
Michigan	-	-	-
Minnesota	-	-	-
Mississippi	0.25%	50% weighted sales	Capital stock
Missouri	0.03%	100% weighted property	Capital stock
Montana	-	-	-
Nebraska	0.04%	100% weighted property	Capital stock
Nevada	-	-	-
New Hampshire	-	-	-



State	Rate	Apportionment weighting	Franchise tax base
New Jersey	-	-	-
New Mexico	-	-	-
New York	0.15%	Equally weighted	Capital stock
North Carolina	0.15%	Equally weighted	Capital stock
North Dakota	-	-	-
Ohio	-	-	-
Oklahoma	0.13%	50% weighted sales	Capital stock
Oregon	-	-	-
Pennsylvania	0.29%	Equally weighted	Capital stock
Rhode Island	0.03%	Equally weighted	Capital stock
South Carolina	0.10%	Equally weighted	Capital stock
South Dakota	-	-	-
Tennessee	0.25%	Equally weighted	Capital stock
Texas	-	-	-
Utah	-	-	-
Vermont	-	-	-
Virginia	-	-	-
Washington	-	-	-
West Virginia	0.48%	50% weighted sales	Capital stock
Wisconsin	-	-	-
Wyoming	-	-	-

Source: RIA All States Tax Handbook





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