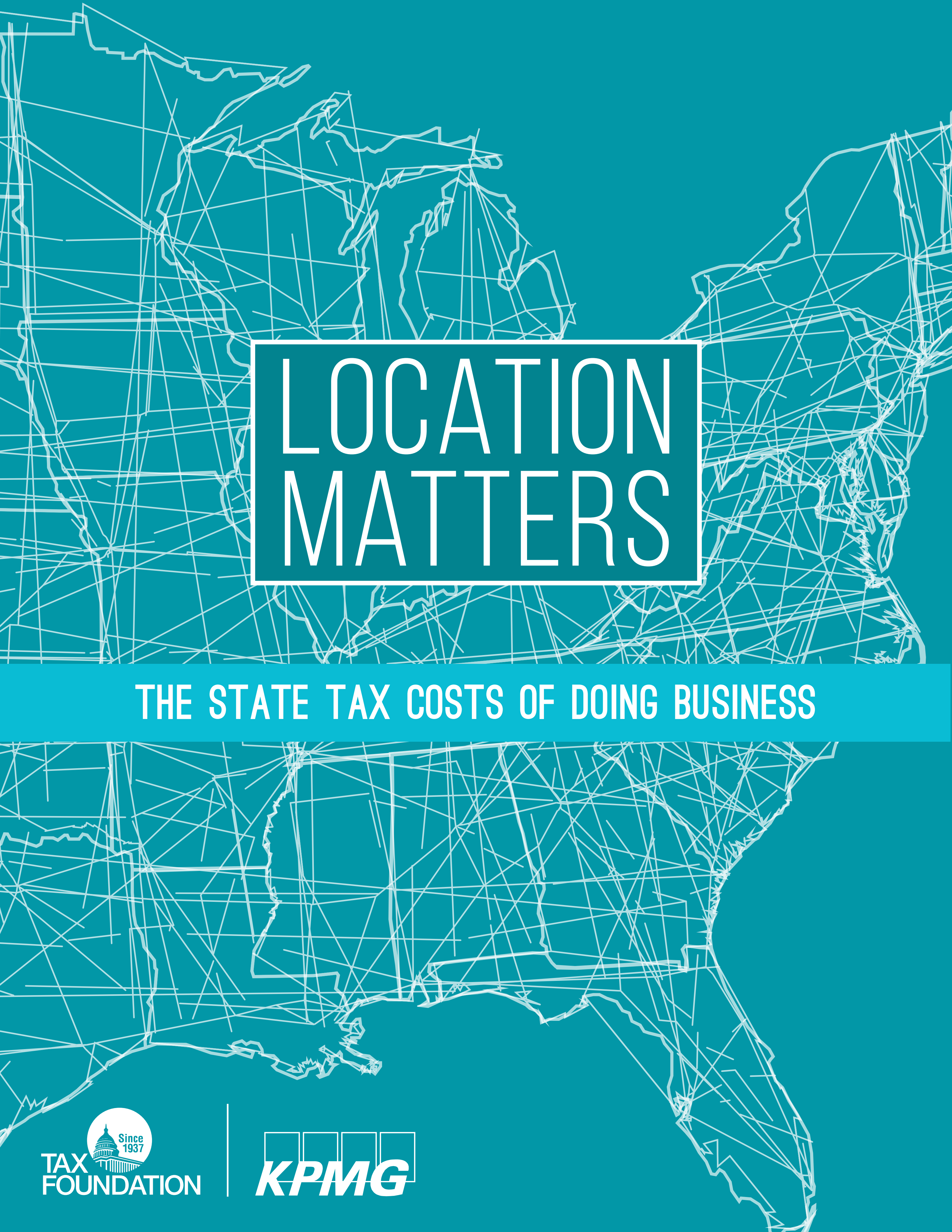

LOCATION MATTERS

THE STATE TAX COSTS OF DOING BUSINESS

TAX FOUNDATION Since 1937

KPMG

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THE STATE TAX COSTS OF DOING BUSINESS

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1325 G Street, NW, Suite 950
Washington, DC 20005
202.464.6200
taxfoundation.org

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Introduction

State and local taxes represent a significant business cost for corporations operating in the United States and can have a material impact on net operating margins. Consequently, business location decisions for new manufacturing facilities, corporate headquarter relocations, and the like are often influenced by assessments of relative tax burdens across multiple states.[1]

Widespread interest in corporate tax burdens has resulted in a range of studies produced by think tanks, media organizations, and research groups. None of these other studies, however, provide comparisons of actual state tax costs faced by real-world businesses.

Some studies compare total tax collections or business tax collections per capita or as a percent of total tax revenue. The shortcoming of this approach is that collections are not burdens: many business taxes are collected in one state but paid by companies in other states. Comparing state collections thus does not accurately portray the relative tax burden that real-world businesses would incur in each state.

Some studies assess the relative value of tax incentives available for different types of businesses, such as new job tax credits, new investment tax credits, sales tax exemptions, and property tax abatements. However, these studies can give the incorrect impression that all businesses in a state enjoy such incentives. They also do not typically account for increased tax rates for mature businesses that may be required to support such incentives.

Some studies, including the Tax Foundation's widely cited annual State Business Tax Climate Index, *define model tax structure principles and measure the state's tax code relative to those principles*. The *State Business Tax Climate Index* is a useful tool for lawmakers to understand how neutral and efficient their state's tax system is compared to other states and to identify areas where their system can be improved. However, this does not address the bottom line question asked by many business executives: "How much will our company pay in taxes?"

An individual firm considering expansion frequently calculates its tax bill in various states, but these calculations are not often released publicly and are usually confined to a small number of states.

To fill the void left by these studies, the Tax Foundation collaborated with U.S. audit, tax, and advisory firm KPMG LLP to develop and publish a landmark, apples-to-apples comparison of corporate tax costs in the 50 states. Tax Foundation economists designed seven model firms—a corporate headquarters, a research and development facility, an independent retail store, a capital-intensive manufacturer, a labor-intensive manufacturer, a call center, and a distribution center—and KPMG tax specialists calculated each firm's tax bill in each state. This study accounts for all business taxes: corporate income taxes, property taxes, sales taxes, unemployment insurance taxes, capital stock taxes, inventory taxes, and gross receipts taxes. Additionally, each firm was modeled twice in each state: once as a new firm eligible for tax incentives and once as a mature firm not eligible for such incentives.

1 *See, e.g.*, Sanja Gupta & Mary Ann Hoffman, *The Effect of State Income Tax Apportionment and Tax Incentives on New Capital Expenditures*, Journal of the American Taxation Association, Supplement 2003, pp. 1-25; Timothy Bartik, *Business Location Decisions in the United States: Estimates of the Effects of Unionization, Taxes, and Other Characteristics of States*, Journal of Business and Economics Statistics, Vol. 3, No. 1., Jan. 1985, pp. 14-28; James Papke and Lesie Papke, *Measuring Differential State-Local Tax Liabilities and Their Implications for Business Investment Location*, National Tax Journal, Vol. 39, No. 3, 1986, pp. 357-366.

Tax Foundation economists then used the raw model results to perform the ensuing industry and state comparisons. The result is a comprehensive calculation of real-world tax burdens, now in its second edition, that we designed as a valuable resource for a variety of stakeholders, to ensure that:

- Governors, legislators, and state officials can better understand and address their states' competitive positions among the 50 states;
- CEOs, CFOs, and other corporate stakeholders can better evaluate the relative competitiveness of states in which they operate or states in which they are contemplating business investments;
- Businesses and trade organizations can better identify policy improvements for each state;
- Site-selection experts can screen states more quickly and accurately for consideration by their clients; and
- National, state, and local media organizations can more effectively report on the tax competitiveness of the 50 states.

The *Location Matters* study, together with our annual *State Business Tax Climate Index*, provides the tools necessary to understand each state's business tax system and the burdens it imposes, offering a roadmap for improvement.

Study Overview and Key Findings

Chapter 1 outlines the objectives and scope of the study. This chapter describes the seven model firms that were analyzed, the specific taxes that were included in the study, the locations that were chosen in each state, and the other factors that could influence the results.

Chapter 2 presents an overview of the effective tax rates experienced by both new and mature operations for each of our seven model firm types and summarizes how various components and features of state tax systems contribute to the overall tax burdens these firms experience.

Chapter 3 summarizes the results for each state. The chapter is aimed at legislators and reporters seeking insight into states' business tax systems, as well as at business owners and location consultants investigating the effects of states' tax systems. The chapter outlines the major factors contributing to the effective tax rates experienced by our model firms in each state.

The Appendices provide further detail on the components comprising effective tax rates for each state and firm type and compare states' incentives for new businesses. They also detail the study's methodology and assumptions. The Appendices are valuable for conducting 50-state comparisons, understanding our modeling, and reviewing our source data.

For many readers, *Location Matters* will serve as a reference guide, not a book to read from cover to cover. As such, it may be valuable to summarize a few key findings:

- *Statutory tax rates only tell part of the story.* While topline rates are important and high rates may provide "sticker shock" for corporations considering locating within a given state, they are just one component of effective tax burdens. Tax incentives, apportionment, throwback rules, and other factors can have a dramatic impact on effective tax burdens. In some cases, states with low statutory tax rates can impose high effective tax burdens, and *vice versa*.

- *Corporate income taxes are just one part of the corporate tax burden.* Sales, property, and unemployment insurance taxes are highly significant components of a firm's overall tax burden. In fact, corporate income taxes are responsible for more than a third of the average corporate tax burden for only four of the fourteen new and mature iterations of the seven firm models.

- *Incentives chiefly benefit new firms, often to the disadvantage of established operations.* Because most tax incentives are developed to convince firms to relocate to, or increase hiring in, a given state, they tend to benefit new firms, which can shift costs to mature firms. Businesses with longer time horizons may have cause to be wary of states which too substantially prioritize attracting new industries over maintaining modest rates for established operations.

- *Incentive-heavy tax structures can reduce tax equity even among newly-established firms.* While incentives favor new firms over mature operations, they often differentiate among firm types as well, with some incentives that favor one operation but do little or nothing to help another. As such, they tend to pick winners and losers and, while potentially making the state highly attractive to specific industries or firm profiles, can limit the state's broader economic appeal across diversified business types.

- *Different firm types experience dramatically different effective tax rates.* Both because different firm types will vary in their exposure to major state and local taxes—distribution centers will be more sensitive to property tax burdens, for instance, while retail establishments may be more significantly impacted by the sales tax—and because of differential treatment of different firm types under the tax code, businesses can experience dramatically different effective tax rates. The median effective tax rate for new retail operations (which rarely receive tax incentives) is 31.0 percent, while the median rate for highly-favored new R&D centers is 11.4 percent. The median rate for a mature labor-intensive manufacturing firm is 9.2 percent; the median mature distribution center, by contrast, experiences a 26.7 percent tax burden.

- *The impact of corporate income and gross receipts taxes depends heavily on structure and firm type.* Although gross receipts taxes generally have much lower statutory rates than traditional corporate income taxes, they are assessed on firms' total receipts (sometimes less certain subtractions), not just net income. Some firm types benefit from this structure, while others do not. The relative impact of these two approaches to business taxation for any given firm type can also depend heavily on how nexus or, in the case of corporate income taxes, apportionment is treated.

Tax structure and ease of compliance are also important considerations for many firms but are not the subject of this study, which focuses exclusively on effective tax burdens. Our annual *State Business Tax Climate Index* takes tax structure into account and includes further analysis of the impact of tax structure on business decision-making and economic growth.

Chapter 1

Objectives & Scope

Study Objectives

The overarching objective of *Location Matters* was to develop a bottom-line measure of the tax cost of each of the 50 U.S. states for a select number of model corporations. One of the more unique results of this study is a measure of the total state and local tax burden borne by both mature firms and new investments, which allows us to understand the effects of state tax incentives compared to a state's core tax system.

The study presents four different but equally important ways of looking at the tax competitiveness of each state:

> ***The tax burden (i.e. effective tax rates):*** This study answers the question most frequently asked by business owners and corporate executives: "How much am I going to pay in total state and local taxes in each state?" The model calculates the total state and local tax burden for each firm type in every state and compares it to the firm's pre-tax profits to determine the effective tax rate on net income. Here the effective tax rate includes corporate income taxes, capital taxes, unemployment insurance taxes, sales taxes, property taxes, gross receipts taxes, and other general business taxes. Throughout this study, rankings are given for mature firms, with a lower rank indicating a lower overall tax burden.
>
> ***The impact of incentives:*** This study makes an important contribution to our understanding of tax neutrality by measuring how much each state's generally available incentive programs affect the tax burden on new investments. This measure allows us to do two things: (1) calculate an effective tax rate for new investments in each state and (2) compare the effective tax rates for mature firms against the effective tax rates for new investments to test the neutrality of each state's tax system for new and existing businesses.
>
> While many state officials view tax incentives as a necessary tool for their states to be competitive, others are beginning to question the costs and benefits of incentives and whether they are fair to mature firms that are paying full freight. Indeed, many existing business owners and executives have reason to object to the generous tax incentives enjoyed by some of their direct competitors, and even firms looking to relocate may have cause to be wary of the rates they will ultimately pay once economic development incentives are no longer available.
>
> ***A measure of tax burdens faced by different industries and firms:*** In addition to measuring the different tax burdens faced by existing and new firms, another way of looking at the neutrality of a state's tax system is to measure the effective tax rates faced by firms in different industries. In an ideal world, the tax code should not favor one industry or firm type over another.

> As a practical matter, of course, this is very difficult because firms in different industries have very different cost structures, income streams, and profitability. For example, businesses that have more property will and should pay more in property tax. Still, comparing the effective tax rates faced by different firm types can give us an indication of how a tax system favors one industry over another or how neutral the system is to firms of all types.

Chapter 2 looks at which states are most competitive for the seven different types of firms. The results show that even among the most or least competitive states, there are wide variations in the tax burdens faced by the seven different firm types. Chapter 3 summarizes the results for each state across all of the firm types, for both mature and newly established firms. The Appendices contain additional comparison tables as well as the methodology and assumptions used to perform the calculations.

Study Scope

Location Matters, now in its second edition, is one of the most extensive comparisons of state corporate tax costs ever undertaken. The scope of the study includes:

- All 50 U.S. states, including 99 different cities: 50 major urban locations and 49 smaller metropolitan regions. (Due to its small size, all Rhode Island analysis relates to the Providence metropolitan area.)

- Seven different model firm types representing a range of sectors—corporate headquarters, research and development facility, retail store, call center, distribution center, capital-intensive manufacturer, and labor-intensive manufacturer.

- Both mature firms and new investment.

- The most variable business tax costs in each state: corporate income taxes, gross receipts taxes, capital and other general business taxes, sales taxes, property taxes, and unemployment insurance taxes.

Locations

This study recognizes that different industries have different location needs. Corporate offices, for example, tend to be located in the largest metropolitan areas with access to airports and financial centers. By contrast, manufacturing facilities tend to be located in or near smaller communities with lower land costs.

Thus, the study divides the locations into two tiers. Tier 1 is a major city in the state while Tier 2 is a mid-size city in the state, generally with a population of less than 500,000. We then locate the model corporate headquarters, R&D facility, and retail store in a Tier 1 city within each state. The call center, distribution center, and manufacturing facilities are all located in a Tier 2 city. Appendix D lists the locations selected as Tier 1 and Tier 2 for each state and discusses the tax characteristics of these locations in greater detail.

Firm Types

The study includes seven firm types that represent a broad cross-section of industries that are highly sought by states competing for jobs and investment dollars. These firms are all corporate entities, not S-corporations, LLCs, or partnerships that may be taxed under state individual income tax systems. We recognize that flow-through businesses are an important part of the business landscape, but in order to keep the study as manageable as possible, we have limited the analysis to corporate entities.

These seven firm types include:[2]

- A corporate headquarters or regional managing office;
- A scientific research and development facility;
- An independent retail clothing store;
- A capital-intensive manufacturer such as a steel company;
- A labor-intensive manufacturer such as a bus or truck manufacturer;
- An independent telemarketing or call center; and
- A distribution warehouse.

These firm types are also very mobile, which means the owners and investors have considerable flexibility in where to locate or relocate based on factors ranging from taxes to labor force. This makes them frequent recipients of economic development subsidies and tax incentives.

For each of these firm types, the study assesses the tax costs borne by a mature operation—one that is at least 10 years old—versus those borne by a new facility. Mature operations are typically no longer eligible for any tax incentive programs while new facilities would be eligible for most incentives.

Each of these firms except the retail outlet are assumed to have out-of-state customers or clients. Thus, how each state apportions a firm's income is a critical factor in determining a state's effective tax rate for that industry.

2 Detail on the structure and financial characteristics of these firm types can be found in Chapter 2 and in Appendix D.

Tax Scope

Types of Taxes Included

Businesses collect and remit all kinds of taxes, from employee payroll taxes and property taxes to excise taxes and income taxes. But the scope of this study is limited to taxes that directly impact a business's costs, not taxes that a business collects from third parties and remits to the government.[3] These are also the taxes that vary most across locations.[4] They include:

- ***Corporate net income taxes***: Forty-four states levy a tax on the net income of corporations. South Dakota and Wyoming do not have a corporate income tax or other business-level tax, while Nevada imposes a payroll tax, and Ohio, Texas, and Washington levy a gross receipts tax rather than a corporate income tax.[5] Of the states with a corporate income tax, 29 levy a single, flat rate on all corporate income. The remaining 15 states have graduated, or multi-bracket, rate structures.

- ***Gross receipts and franchise taxes:*** Ohio, Texas, and Washington do not have a corporate income tax but do have a business tax that is levied on the gross receipts of the firm or, in the case of Texas, on the business's gross margins. Delaware has a state-level gross receipts tax in addition to the corporate income tax, while Virginia's gross receipts tax is levied at the local level. New Hampshire has an alternative minimum tax in addition to the corporate income tax; a firm must pay the greater of the income tax or the business enterprise tax, which is a variant of an addition-method value-added tax (VAT). Eighteen states levy some sort of capital stock tax. Gross receipts taxes do have the advantage of a low rate on a broad base but also lead to increased complexity and economic distortions, such as tax pyramiding and firms in loss-making situations still being faced with a state corporate tax liability.

- ***Property taxes:*** Property taxes are especially important to businesses because commercial property is frequently taxed at a higher rate than residential property. Additionally, localities and states often levy taxes on the personal property or equipment owned by a business. Since property taxes can be a large burden on businesses, they can have a significant effect on location decisions.

- ***Unemployment insurance (UI) taxes:*** Unemployment insurance taxes are paid by employers into the UI program to finance benefits to workers recently unemployed. Unemployment insurance tax rates in each state are based on a schedule of rates which, for any particular business, is determined by the business's experience rating or history of claims. The rate is then applied to a taxable wage base (a predetermined portion of an employee's wages) to determine UI tax liability. Competitive states tend to have rate structures with lower minimum and maximum rates and a wage base at the federal level.

3 This means, for instance, that we calculate a company's sales tax burden as the sales taxes it pays on the purchase of goods and services (business inputs), not the sales taxes it collects from customers on sales of its own goods and services.
4 For more detail on the types of taxes included in this study, see the methodology section of Appendix D.
5 In 2015, after the snapshot date for this study, Nevada adopted a modified gross receipts tax as well.

- ***Sales taxes on business equipment or inputs:*** In addition to levying sales taxes on consumer goods, many states extend their sales taxes to business equipment, machinery, and inputs. These taxes can add considerably to the cost of new investment and the final price of products as the sales tax cascades through the supply chain—what economists call "tax pyramiding." Highly competitive states tend to tax fewer business inputs, which greatly reduces the cost of doing business in the state, especially for capital- or equipment-intensive firms. Note that the retail sales tax collected by businesses on sales to their customers is not included in this analysis, as that tax burden is primarily borne by their customers, not the business itself.

Who Bears the Burden of the Tax?

For the purposes of this study it is assumed that the business bears the entire burden of the tax, which is why the owners are so sensitive to the costs and why states compete to offer tax incentives.

In this study, taxes are considered a cost of doing business, not just a factor to be passed on to consumers or shared with workers. A good example is the sales tax on business equipment which, theoretically, could be absorbed into the price of the product. However, this tax can substantially increase the cost of building a multi-million dollar manufacturing facility and, thus, make a state with no sales tax on equipment a far more attractive location.

Economists, however, typically look at business taxes in terms of who bears the actual economic burden of the tax, not just the legal burden. In economic terms, the real burden (or incidence) of business taxes is borne by customers through higher prices, workers through lower wages, or owners and shareholders through lower returns on their investment.

The Tax Foundation's *Annual State-Local Tax Burden Rankings* report does attempt to account for the shifting of business tax burdens by allocating these costs to customers, workers, and shareholders based on various demographic and geographic factors. By contrast, *Location Matters* measures only the legal incidence of these direct business taxes. The effective tax rates calculated in this study are based on the firm's pre-tax income and the total amount of tax that impacts the firm's direct costs.

Other Tax Factors

Nexus and Apportionment

Nexus is the legal term for whether a state has the power to tax a business. The historical rule that remains mostly in force is that a state only has power to tax a business if the business has property or employees in the state, a concept known as "physical presence."[6] Some states, however, have adopted aggressive nexus standards in recent years seeking to expand state taxing power to businesses operating in other states.

6 Joseph Henchman, Dirk Gisebert, and Laura Lieberman, *Ending the Nexus Guessing Game for Taxpayers: Lamtec Corp. v. Washington Department of Revenue*, Tax Foundation Fiscal Fact No. 274, June 16, 2011, http://www.taxfoundation.org/news/show/27381.html.

Firms with nexus in more than one state must use state rules to *apportion* their profits, determining how much of their income each state may tax. Historically, profits were apportioned among states in the ratio of the company's property and payroll in each state. For example, if 50 percent of a firm's payroll was based in Colorado and 50 percent of a firm's property was in Colorado, Colorado would be able to tax 50 percent of the firm's profits. Long the historical standard, this property-and-payroll formula was unsuccessfully recommended by the congressional Willis Commission to be the uniform national standard in 1959.

States resisted this recommendation and instead as a whole adopted the Uniform Division of Income for Tax Purposes (UDITPA), also known as the "three-factor formula." This formula apportions profits based on each state's share of the firm's overall property, payroll, and sales (each of the three "factors" is averaged equally). For example, if 50 percent of a firm's payroll was based in Colorado and 50 percent of the firm's property was in Colorado, but only 1 percent of the firm's sales were in Colorado, Colorado would be able to tax approximately 34 percent of the firm's profits if it used a three-factor formula.

Over the past few years, many states have increased the weight of the sales factor, with some relying on it completely. This change has had the effect of *reducing* tax burdens for businesses that have most of their property and payroll in the state but only a small proportion of their national sales in the state, while *increasing* tax burdens for out-of-state companies that have minimal property or payroll in the state but a large proportion of their national sales in the state. For example, if 50 percent of a firm's payroll was based in Colorado and 50 percent of the firm's property was in Colorado, but only 1 percent of the firm's sales were in Colorado, Colorado would be able to tax approximately 1 percent of the firm's profits if it used a single sales factor formula.

Since many businesses make sales into states where they do not have nexus, businesses can end up with "nowhere income," income that is not taxed by any state. To counter this phenomenon, many states have adopted what are called "throwback" or "throwout" rules to identify and tax profits earned in other states but not taxed by those states.

Under "throwback" rules, such profits are taxed by the state where the sale originated. Under "throwout" rules, such profits are ignored in calculating the state's share of total profits, by subtracting them from the apportionment denominator. For example, if Colorado has a single sales factor formula and a throwback rule, a firm with only 1 percent of its sales in Colorado and 75 percent of its sales in a state where it is not subject to an income tax would see those sales "thrown back" to Colorado. Colorado would thus be able to tax 76 percent of the firm's profits.

Our study's model firms (with the exception of the corporate headquarters) each have all their property and payroll located in one state, while sales in each state are in proportion to the relative population of each state. In addition, we assume that each model firm has the right to apportion its income. While this may be a simplified approach for multistate firms, it still permits detailed and accurate analysis. However, readers should be cautioned that our assumptions can sometimes lead to results that may be uncommon in the real world. For example, firms in states with a single sales factor and no throwback face an extremely low tax burden due to the assumptions we make about the business activities of our model firms.

Incentives: What Is Included and How They Affect Certain Firms

Many states provide tax credits or tax incentives with the goal of attracting new investment or encouraging large out-of-state firms to relocate to their states. These credits vary widely in size and scope. Some are aimed at incentivizing the hiring of new workers, while others are meant to offset the investment costs of new plants and equipment. While tax incentives may reduce these costs for some taxpayers, they can be a windfall for a firm that would have expanded anyway, can leave out or even drive up tax costs for existing firms, and can complicate the tax system.

The major tax incentives that are measured in this study include:

New Job Tax Credits: These credits offer specific dollar amounts for each new job a company creates over a specified period of time. To receive the credit, the job must generally be considered "qualified" by state officials, with credits typically only available to certain types of industries. Job tax credits could encourage some firms to hire new employees even if they would be better off spending more on new equipment.

As one example, Pennsylvania offers a Job Creation Tax Credit of $1,000 per net new job to approved businesses that create jobs within three years. To be eligible, businesses must demonstrate to state officials "[l]eadership in the application, development, or deployment of leading technologies in business operations."[7] Twenty-seven states have new job tax credits that were considered applicable to one or more of the model firms in this study.

Investment Tax Credits: Investment tax credits offer an offset against tax liability if the company invests in new property, plants, equipment, or machinery in the state offering the credit. Sometimes, the new investment will have to be "qualified" and approved by the state's economic development office.

To cite one example, Indiana offers a 10 percent tax credit for eligible capital investment. Each of this study's model firms is eligible for that incentive. In most states, however, investment incentives are not as broadly available, often being targeted at manufacturing investment. Twenty-four states have investment tax credits that were considered applicable to one or more of the model firms in this study.

Research and Development (R&D) Tax Credits: R&D tax credits reduce the tax burden of companies that invest in "qualified" research and development activities. The theoretical argument for R&D tax credits is that they encourage basic research that may be good for society in the long run but not necessarily profitable in the short run. Opponents argue that much of the R&D work supported by the credits would have occurred anyway, and that state-level R&D credits are less effective than federal credits because benefits of successful R&D are not limited to just that state.[8]

As one example, Arizona offers a 24 percent tax credit for in-state R&D expenses. Thirty-seven states have R&D credits that were considered applicable to one or more of the model firms in this study.

7 Pennsylvania Department of Community & Economic Development, *Job Creation Tax Credit Program Guidelines*, Jan. 2009, http://www.newpa.com/sites/default/files/uploads/jobcreationtaxcredit_guidelines_09.pdf.

8 *See, e.g.*, Daniel Wilson, *Beggar Thy Neighbor? The In-State, Out-of-State, and Aggregate Effects of R&D Tax Credits*, The Review of Economics and Statistics, Vol. 91, No. 2, May 2009, pp. 431-436.

Payroll Withholding Tax Rebates: These rebates return to a company a portion of state income taxes withheld from employees' wages for new hires. These rebates must generally be pre-approved by state officials and are usually measured by job creation over a period of years. These rebate programs are often difficult to administer efficiently, creating a compliance burden for the taxpayer.

As one example, Connecticut rebates to companies 60 percent of new employees' state income tax withholdings for five years. Seventeen states' payroll withholding tax rebates were considered applicable to one or more of the model firms in this study.

Property Tax Abatements: State and local abatements reduce property tax liability for certain types of industries or in certain areas by applying credits to the tax that would otherwise be due. While some abatements are broadly available, many are awarded to certain projects as part of economic development packages designed to increase investment or attract new employers. Critics argue that abatements merely shift the location of investment and jobs rather than inducing new investment and new jobs. Abatements can also strain local resources by growing the level of services while keeping new facilities off the property tax rolls.

As one example, Nebraska waives 100 percent of property taxes for new manufacturing and shipping facilities for 10 years. Property tax abatements in 39 states were considered applicable to one or more of the model firms in this study.

Other: Other discretionary tax incentives such as financing programs, zone-based benefits (such as enterprise zones and economic development zones), "deal-closing funds," and the like are not included in this analysis. Assumptions were made to compute benefits if incentive programs had discretionary components, such as a sliding scale of benefits based on project parameters.

Other Factors Affecting New Firms Differently from Mature Firms

While the availability of targeted tax incentives to new firms is a major reason some new firms in many states pay lower tax bills than otherwise equivalent mature firms, two other factors we identified can also produce significant differences.

Sales Taxes on Equipment. Finance scholars agree that a properly designed sales tax should only tax final retail sales and exempt so-called "business-to-business" transactions. When firms must pay sales tax on their purchases of raw materials, machinery, and other inputs, these taxes become part of the price of the final product sold to consumers. Different products will then have different hidden taxes on taxes, a concept known as "pyramiding" and a source of economic distortion.

Most states have sought to minimize this distortion by specifically exempting some (but not all) new manufacturing machinery and equipment from the sales tax. In these states, our study shows new firms purchasing equipment face lower sales tax obligations than in states without such a sales tax exemption.

Depreciation and Property Taxes on Machinery and Inventory. While virtually all local governments and many states levy property taxes on a company's land and building improvements, 37 states also impose property tax on the value of a company's machinery, and 11 states impose property tax on the value of a company's inventory. These taxes especially impact large manufacturing operations, retail stores, and other businesses with large amounts of machinery or merchandise.

Unlike land, buildings and machinery lose their value over time. This asset depreciation results in many mature firms in our study paying less in property taxes than new firms.

Caveats and Limitations

Information limitations. The study was based on the applicable tax law and available data as of April 1, 2014. We understand that a number of states have tax changes that are being phased in over multiple years, but because those future changes can be revoked at any time, they have not been considered in this study. We do, however, note any interim or forthcoming rate changes on state-specific pages.

Model firm limitations. This study measures the tax burden faced by only seven model corporations and, as such, cannot represent the universe of industries for which states compete. However, the seven firms included in this report are highly mobile—meaning they can be located in almost any state—and are highly sought after by all 50 states. So while the results in this study may not be representative of all industries, they do represent a good sample of competitive firm types.

Business tax burdens don't necessarily reflect the quality of state tax systems. Indeed, the study frequently shows that different states can impose the same tax burdens on the same firm type but achieve that result in very different ways. For example, according to our cost model, Vermont and Colorado each have a 13.1 percent effective tax rate for a mature corporate headquarters. Nevertheless, Vermont achieves this result with an 8.5 percent corporate income tax rate while Colorado's corporate income tax rate is 4.63 percent. Colorado's property tax burden for this type of firm, however, is significantly higher than the burden it would face in Vermont.

Similarly, the tax systems in Wyoming and Virginia produce identical 4.3 percent effective tax rates for mature labor-intensive manufacturing operations even though Virginia imposes a 6 percent corporate income tax while Wyoming foregoes one entirely, and Virginia's combined state and local sales tax burden edges out Wyoming's, 5.63 percent to 5.49 percent. However, despite its 6 percent statutory corporate income tax rate, Virginia offers a significantly lower unemployment insurance tax burden and more generous incentives for this firm type, yielding identical effective rates.

This study does not reward or penalize states for how they achieve their rankings, even if a state's tax measures cause distortions, unintended economic consequences, or high compliance costs for firms. Issues of this nature are addressed by the Tax Foundation's *State Business Tax Climate Index* and the *Annual State-Local Tax Burden Rankings*.

Assumptions matter. Like any study of this magnitude, the assumptions can influence the results. For example, in order to keep the study as tractable as possible, we assumed that our model firms (with the exception of the retail establishment) do business in all 50 states, but only have significant (or material) nexus—employees, property, and facilities—in their home state. In other words, they make something in their home state and ship it to third parties in all other states. However, it is also assumed that the businesses have a nominal nexus in one or more other states, thus qualifying them as interstate corporations eligible to apportion their income between states.

This highly simplified assumption probably does not reflect the operations of most multistate businesses. Most multistate firms have sales personnel or subsidiaries in other states to market and distribute their products. This assumption greatly advantages states that have single sales factor apportionment over those that have traditional three-factor formulas. Thus, it is possible that a state with a very high corporate tax rate and a single sales factor—such as Iowa, which has a 12 percent corporate rate—can score well because only a fraction of the firm's total sales will be allocated to the home state based on each state's share of the national population.

Under different assumptions, that same state may not score as favorably. For example, if we compare the tax burdens of firms that have no out-of-state sales, as is the case in our model retail operation, the apportionment factor is not an issue because all of the income is taxed at the in-state rate. Thus, assuming that property and sales taxes are equal factors in the apportionment formula, the in-state firm facing Iowa's 12 percent corporate tax rate almost certainly ends up having a higher tax burden than a similar firm in neighboring Missouri, which has a 6.25 percent corporate tax rate.

District of Columbia. Because the District of Columbia is a highly dense urban city, the model only measured the tax burden for Tier 1 firms: a corporate headquarters, an R&D facility, and a retail store. These effective tax rates are shown in summary tables, but D.C. is not included in state rankings.

Chapter 2

Firm Overviews & Effective Tax Rates

This chapter presents lawmakers, development officials, and business leaders with an overview of the effective tax rates imposed on each of our seven model firm types and a summary of how different elements of state tax systems contribute to the aggregate tax burdens experienced by each of the model firms.

Our seven model firm types—a corporate headquarters, a research and development (R&D) facility, an independent retail store, a capital-intensive manufacturer, a labor-intensive manufacturer, a call center, and a distribution center—are very mobile, which means the owners or investors have considerable discretion on where they locate the firm based on factors ranging from taxes to labor force. This makes them frequent targets for economic development subsidies and tax incentives.

For each firm type, our model assesses the tax costs borne by a mature firm—one that is at least 10 years old—versus those borne by a new facility. Mature firms are typically no longer eligible for any tax incentive programs while new facilities would be eligible for most incentives. Except for the retail store, these firms are assumed to have customers or clients out of state. Thus, how each state apportions a firm's income can be a critical factor in determining a state's effective tax rate for that industry.

The following pages enumerate the effective tax burdens for both new and mature firms in each state. The total tax burden includes corporate income taxes, unemployment insurance (UI) taxes, sales taxes, property taxes, and any sundry business taxes such as capital stock and gross receipts taxes that exist in certain states and cities. For ease of comparison, we translate the tax burden into an effective tax rate on net income so that business leaders can understand how much pre-tax income would go to pay all state and local tax costs.[9] Effective tax rates are rounded to the nearest one tenth of one percent. For rankings, greater precision in the raw data is used to break ties.

They also provide a short synopsis of the attributes of state tax systems that matter most for each firm type. For some firms, statutory corporate income tax rates are highly significant; for others, effective property tax rates may comprise a major part of the overall tax burden. Certain apportionment rules are crucial to some firm types but less important to others. And incentive-heavy tax structures can have dramatically distinct impacts on different firm types.

One of the more interesting aspects of this study is the comparison of a state's effective tax rates for mature firms with its effective rates for new operations after we take incentive programs into account. Some states perform well on both measures while others do poorly in both. On the other hand, some states will produce favorable outcomes by one measure but less desirable outcomes by the other because of the complex interaction of the myriad tax variables.

9 See the methodology section, Appendix D, for a full explanation.

Corporate Headquarters

	Mature Rank	Mature Rate	New Rate	New Rank
WY	1	6.9%	10.0%	12
SD	2	8.2%	10.9%	16
MT	3	9.0%	10.8%	15
ND	4	9.6%	12.2%	20
NC	5	10.4%	6.9%	6
NV	6	10.6%	15.2%	29
AK	7	11.2%	12.4%	21
KY	8	11.2%	7.1%	7
OK	9	11.5%	6.4%	5
OH	10	11.5%	10.8%	14
FL	11	11.7%	15.2%	28
VA	12	12.0%	16.4%	31
NH	13	12.0%	13.1%	22
TX	14	12.0%	18.5%	40
AZ	15	12.4%	17.0%	35
GA	16	12.5%	13.5%	25
MD	17	12.6%	17.8%	37
IN	18	12.8%	8.6%	9
UT	19	12.8%	13.3%	23
AL	20	13.0%	13.3%	24
VT	21	13.1%	11.3%	17
CO	22	13.1%	17.2%	36
DE	23	13.3%	12.2%	19
AR	24	13.6%	8.9%	11
ID	25	13.7%	16.9%	34
KS	25	13.7%	5.0%	3
LA	27	13.7%	5.2%	4
NM	28	13.8%	8.8%	10
MS	29	14.1%	11.3%	17
SC	30	14.2%	13.5%	26
TN	31	14.5%	17.8%	38
NE	32	14.5%	-0.8%	1
HI	33	14.6%	16.6%	32
MO	34	14.8%	10.2%	13
ME	35	15.1%	16.2%	30
OR	36	15.3%	16.7%	33
MA	37	15.3%	19.1%	41
MI	38	16.0%	21.1%	45
RI	39	16.1%	19.1%	42
WI	40	16.5%	7.7%	8
CA	41	16.8%	20.9%	44
WV	42	17.2%	18.4%	39
IL	43	18.3%	14.3%	27
CT	44	19.0%	22.1%	46
NJ	45	19.3%	3.6%	2
WA	46	19.4%	25.9%	49
IA	47	20.4%	20.8%	43
MN	48	21.5%	25.0%	47
PA	49	23.1%	25.2%	48
NY	50	25.3%	28.3%	50
DC	(35)	14.9%	20.6%	(43)

For this firm type, we modeled a high-wage regional corporate office with 200 employees, including management, financial operations, IT, sales, and administrative personnel. Our model firm has a capital investment of $10 million and leases 60,000 square feet of Class A downtown office space. Its revenue is approximately $31 million with a gross profit ratio of 17 percent and earnings before tax of 14 percent. The equity ratio is assumed to be 100 percent. Our apportionment methodology assumes 50 percent of property and payroll to be located in the state. The income-producing activities of the office are assumed to occur in state, provide all benefits in state, and relate exclusively to the marketplace of the state.

Many of the states with the lowest total tax costs for mature corporate headquarters do without one or more of the major taxes, such as a corporate income or sales tax. Wyoming and South Dakota, both of which forego corporate income taxes, offer the lowest effective tax rates for mature corporate headquarters at 6.9 percent and 8.2 percent respectively, and Montana and Alaska, which do without state sales taxes, are also very competitive at 9.0 and 11.2 percent. A highly competitive business tax structure and favorable legal and regulatory environment combine to make Wyoming one of the most popular states in which to incorporate. Conversely, high statutory corporate tax rates are responsible for the preponderance of the tax burdens experienced by these firms; six of the 10 highest tax cost states for mature corporate headquarters have statutory tax rates above 8.5 percent, led by Iowa's 12 percent top marginal rate.

The majority of the lowest tax burden states for new corporate headquarters offer generous tax incentive programs to minimize these firms' tax burdens. Seven of the 10 states with the lowest tax costs for new corporate headquarters offer generous withholding tax credits that greatly reduce the corporate income tax burden for these operations, and states with the six largest withholding tax rebates are all among the ten lowest tax cost states for new corporate headquarters. Conversely, high tax cost states for new firms tend to combine high tax rates with few incentives programs.

Unemployment insurance taxes tend to comprise a relatively modest share of the overall tax burden for high-wage firms like a regional corporate headquarters, while sales and property tax burdens can account for a substantial share of firms' total liability, especially for new firms receiving generous income tax incentives.

Research & Development Facility

Our model research and development (R&D) facility is a pharmaceutical R&D facility for product development. The facility is assumed to have 50 employees, including management, business and financial, computer and math, science, and administrative positions. We assume capital investment of $4 million and the lease of 30,000 square feet of Class A suburban commercial space. Annual revenue is approximately $8 million with earnings before tax of 14 percent and an equity ratio of 100 percent. The apportionment methodology assumes 100 percent of property and payroll are in state. While all income-producing activities are assumed to be performed in state, those activities are also assumed to serve clients nationally and therefore generate benefits and relate to the marketplaces of all 50 states in proportion to the relative population of each state.

State economic development offices tend to prize R&D facilities and heavily incentivize them through the tax code. As such, while some states (like North Dakota, South Dakota, and Wyoming) offer a highly competitive tax environment for mature R&D facilities even in the absence of R&D tax credits, most low tax cost states for these firms provide substantial R&D incentives which limit, or even eliminate, income tax liability. This is particularly true for new R&D operations, but can apply to mature operations as well.

New R&D facilities experience a negative overall tax liability in five states (Louisiana, Nebraska, New Jersey, Hawaii, and New Mexico). In Nebraska, available credits are so generous that they even exceed the mature firm's total tax liability. With income tax burdens likely to be low, property taxes typically represent the largest share of an R&D firm's total tax liability by a substantial margin.

Since an R&D facility's income is assumed to be mostly outside the home state, these firms' income tax burdens are greatly reduced in states which tax income where the benefits are received. Maine, Maryland, and Wisconsin stand out as particularly attractive in this regard. Market-based sourcing rules, such as the one that propels Oklahoma to an attractive effective tax rate for new firms, can have a similar effect. Conversely, states that impose above-average tax costs on R&D firms tend to (1) offer few incentives, (2) source income to where the income-producing activity is performed, thus exposing all of the firm's income to in-state taxation, and (3) impose heavy unemployment insurance, sales, or property tax burdens.

	Mature Rank	Mature Rate	New Rate	New Rank
NE	1	-2.3%	-7.4%	2
HI	2	0.9%	-0.6%	4
LA	3	1.8%	-10.3%	1
IN	4	5.8%	1.6%	6
WY	5	6.2%	10.7%	22
ND	6	6.9%	11.1%	24
SD	7	7.4%	11.4%	25
UT	8	7.6%	8.4%	15
ME	9	7.8%	8.4%	15
MD	10	7.9%	10.4%	19
AZ	11	7.9%	13.2%	27
CA	12	8.0%	13.4%	28
IA	13	8.2%	10.7%	20
MN	13	8.2%	10.7%	22
GA	15	8.4%	7.6%	12
NC	16	8.9%	10.7%	20
WA	17	9.5%	14.2%	31
OR	18	10.0%	11.4%	25
OH	19	10.1%	8.1%	13
WI	20	10.5%	2.5%	8
NV	21	10.8%	17.9%	41
VT	22	10.9%	6.3%	9
FL	23	11.0%	14.9%	34
NM	24	11.5%	-0.2%	5
OK	25	11.8%	7.4%	10
TX	26	12.1%	21.5%	48
ID	27	12.2%	15.0%	35
MS	28	12.4%	8.9%	17
PA	29	12.5%	14.1%	30
RI	30	12.7%	22.4%	50
MI	31	13.0%	19.7%	47
MT	32	13.0%	13.6%	29
KY	33	13.3%	7.5%	11
NH	34	13.5%	14.6%	33
VA	35	13.5%	18.8%	45
SC	36	13.6%	14.5%	32
MA	37	13.8%	19.5%	46
CO	38	14.0%	18.2%	43
AR	39	14.1%	8.1%	13
TN	40	14.1%	16.8%	38
AK	41	14.4%	15.8%	36
CT	42	14.5%	21.8%	49
IL	42	14.5%	17.0%	39
AL	44	14.5%	15.8%	36
DE	45	15.4%	18.1%	42
NJ	45	15.4%	-1.1%	3
KS	47	16.9%	8.9%	17
WV	48	17.3%	17.5%	40
MO	49	17.9%	18.4%	44
NY	50	24.8%	1.9%	7
DC	(49)	17.9%	25.7%	(51)

Retail Store

	Mature Rank	Mature Rate	New Rate	New Rank
WY	1	6.6%	17.7%	2
SD	2	8.1%	18.0%	3
NV	3	9.6%	25.4%	15
ND	4	10.9%	20.3%	5
NC	5	11.9%	23.6%	10
WA	6	12.1%	30.7%	23
AK	7	12.6%	16.8%	1
AL	8	13.0%	29.0%	19
MT	8	12.9%	24.0%	11
NM	10	13.1%	22.2%	8
OH	10	13.1%	25.7%	16
UT	12	13.3%	28.7%	18
IN	13	13.6%	18.2%	4
KY	14	13.8%	24.5%	12
TX	15	13.9%	37.9%	40
VA	16	14.1%	30.7%	23
OR	17	14.3%	20.3%	5
GA	18	14.5%	30.8%	23
FL	19	14.6%	32.9%	31
OK	19	14.6%	31.1%	26
AR	21	15.1%	32.2%	30
MS	21	15.1%	34.9%	36
NE	21	15.1%	31.8%	28
AZ	24	15.2%	33.1%	32
LA	25	15.4%	35.4%	38
ID	26	15.6%	27.8%	17
CO	27	15.8%	37.3%	39
HI	27	15.8%	23.0%	9
NH	27	15.8%	21.5%	7
CA	30	16.1%	29.9%	21
TN	30	16.1%	33.7%	34
MD	32	16.4%	38.6%	41
VT	32	16.4%	24.8%	13
ME	34	16.6%	24.8%	13
WV	35	17.1%	33.7%	34
SC	36	17.4%	46.3%	49
KS	37	17.6%	29.9%	21
MO	38	19.3%	43.1%	47
MI	39	19.4%	40.1%	43
IL	40	19.7%	33.1%	32
NJ	40	19.7%	31.9%	28
WI	42	19.9%	40.0%	43
DE	43	20.1%	29.0%	19
CT	44	20.9%	42.5%	46
MA	44	20.9%	43.6%	48
IA	46	21.8%	35.0%	36
RI	47	22.1%	49.3%	50
PA	48	22.9%	31.6%	27
MN	49	24.3%	40.0%	43
NY	50	26.5%	39.1%	42
DC	(38)	18.4%	38.2%	(41)

Our model retail operation is an independent clothing store with 25 employees, most of whom are sales employees. The business has a capital investment of $2 million and leases 10,000 square feet of downtown commercial space. It brings in $2.9 million in annual revenue with a gross profit ratio of 45 percent and earnings before tax of 9 percent. The equity ratio is assumed to be 100 percent, and the apportionment methodology assumes that property, payroll, and sales are all in state.

The three states with the lowest tax costs for mature retail operations—Wyoming, South Dakota, and Nevada—all forego a corporate income tax. Two other states that fare well for established retail operations, Washington and Ohio, also do without a traditional corporate income tax but instead levy gross receipts taxes.

While one might expect the sales tax to work uniquely to the detriment of retail stores, our study only looks at sales taxes paid directly by the firms themselves—that is, sales taxes they pay on the purchase of business inputs, not sales taxes they collect on their retail sales—and a high sales tax burden is not insurmountable if the rest of the tax system is largely favorable. For instance, Alabama combines a high effective sales tax burden with modest income, unemployment insurance, and property tax burdens to provide a low overall tax burden for mature retail stores. At the other end of the spectrum, Delaware does not levy a sales tax but still imposes one of the highest aggregate tax burdens for mature operations due to its high corporate income tax rate, property tax burden, and a gross receipts tax.

In fact, property taxes turn out to be a much more significant burden than sales taxes for this firm type, and the corporate income tax burden can often outstrip the impact of the sales tax as well. Whereas other firm types may experience substantial sales tax burdens when the sales tax is improperly applied to business inputs, retail stores will tend to have fewer such business-to-business transactions and can generally pass along to consumers a sizable percentage of the cost associated with sales taxes imposed on their own merchandise. We do not consider sales taxes on merchandise sold to consumers in this study.

Finally, retail stands out as having lower effective tax rates for mature than for new operations. This is because few states offer incentives for retail operations—typically a driver of lower tax burdens for new operations—and new retail stores tend to have initial expenses (such as the purchase of store fixtures and other materials subject to personal property taxes) that subject them to more extensive taxation.

Capital-Intensive Manufacturer

Our model capital-intensive manufacturing operation is a steel company with 200 positions, including management, administrative, installation and maintenance, production, transportation, and materials employees. The scenario assumes $300 million in capital investment, including a 250,000 square foot suburban industrial building owned by the firm. Revenue is assumed to be approximately $200 million with a gross profit ratio of 25 percent, earnings before tax of 10 percent, and an equity ratio of 50 percent. The apportionment methodology assumes 100 percent of property and payroll is in the state in which the manufacturer is located, while sales are assumed to be distributed among all 50 states in proportion to the relative population of each state.

Interestingly, many of the states with the lowest overall tax burdens for this firm have high corporate statutory income tax rates. For these firms, favorable apportionment factors and an absence of throwback rules are often more important. Of the ten lowest tax cost states, eight impose income or gross receipts taxes, and seven of those use single sales factor apportionment, meaning that the amount of the firm's sales subject to home-state taxation is very low. A state's decision not to tax "nowhere income"—income attributable to states with which a firm lacks nexus—through throwback rules similarly lightens overall tax burdens for this firm type. Conversely, nine of ten highest tax cost states for mature operations employ throwback or throwout rules.[10]

Many high tax cost states either have high property tax rates on land, buildings, and equipment, or broader property tax bases that include inventories, while more competitive states frequently avoid taxing equipment and inventory. These burdens are frequently offset in part by property tax abatements (and occasionally freeport exemptions), which can be substantial for new firms. Thirty-nine states offer some degree of property tax abatement for new capital-intensive manufacturers, a few of which all but wipe out overall tax liability for this firm type.

Finally, due to the effect of tax incentives, income tax burdens tend to be much more substantial for mature manufacturers than for new operations. Given that capital-intensive manufacturers tend to have long time horizons, however, many manufacturers that initially benefit from relatively low income tax burdens in incentive-heavy states can anticipate significantly higher taxes down the line.

	Mature Rank	Mature Rate	New Rate	New Rank
IA	1	3.9%	4.5%	8
MN	2	4.0%	4.6%	9
WY	3	4.1%	8.7%	26
PA	4	4.2%	5.4%	12
SD	5	4.2%	10.1%	34
NY	6	4.5%	2.3%	5
NJ	7	5.0%	2.1%	4
OH	8	5.1%	2.8%	6
GA	9	6.0%	6.0%	15
AZ	10	7.5%	14.3%	41
NE	11	7.5%	2.0%	3
MO	12	7.8%	7.4%	21
NV	13	7.9%	21.6%	48
CT	14	8.0%	9.8%	30
MI	15	8.5%	9.7%	29
LA	16	8.5%	0.1%	1
NC	17	8.9%	10.2%	35
ND	18	9.0%	5.6%	14
AL	19	9.3%	7.1%	18
VA	20	9.3%	23.8%	49
DE	21	9.3%	4.6%	10
WA	22	9.5%	17.1%	42
TX	23	9.9%	19.8%	45
MD	24	10.3%	26.0%	50
KY	25	10.3%	9.8%	32
UT	26	10.8%	8.3%	23
NM	27	11.0%	12.1%	37
TN	28	11.1%	8.8%	28
OK	29	11.3%	4.8%	11
KS	30	11.3%	1.8%	2
FL	31	11.3%	19.6%	44
AK	32	12.3%	5.6%	13
NH	33	12.6%	7.4%	22
HI	34	12.8%	8.8%	27
OR	35	13.7%	9.8%	31
ID	36	13.9%	8.5%	24
MA	37	13.9%	7.2%	19
IL	38	14.2%	6.5%	17
RI	39	14.5%	6.4%	16
MT	40	14.5%	14.1%	40
CO	41	14.7%	21.0%	47
SC	42	15.6%	20.9%	46
WV	43	15.9%	4.5%	7
AR	44	16.2%	8.6%	25
CA	45	16.2%	17.7%	43
WI	46	16.5%	9.8%	33
VT	47	17.2%	12.2%	38
ME	48	17.6%	7.3%	20
MS	49	17.8%	13.8%	39
IN	50	19.2%	11.7%	36

10 See the discussion of apportionment and throwback rules on page 9-10.

Labor-Intensive Manufacturer

	Mature Rank	Mature Rate	New Rate	New Rank
WY	1	4.3%	7.7%	18
VA	2	4.3%	11.4%	36
GA	3	4.6%	2.8%	4
MD	4	4.9%	12.6%	42
NE	5	5.5%	1.6%	2
MO	6	5.8%	3.3%	5
AZ	7	6.0%	10.8%	32
SD	8	6.0%	9.9%	28
LA	9	6.3%	-1.9%	1
MI	10	6.3%	8.2%	20
PA	11	6.6%	10.2%	30
CT	12	6.7%	9.8%	26
OH	13	6.9%	4.8%	9
TX	14	7.0%	14.8%	46
NV	15	7.0%	14.3%	45
IA	16	7.1%	9.6%	25
MN	17	7.2%	9.8%	27
NY	18	7.2%	3.8%	8
NC	19	7.3%	6.5%	11
SC	20	7.7%	8.0%	19
FL	21	7.8%	11.2%	33
KY	22	8.0%	6.5%	10
NJ	23	8.5%	1.8%	3
AL	24	8.5%	6.7%	12
ND	25	9.1%	9.4%	24
DE	26	9.2%	7.6%	15
UT	26	9.2%	9.0%	23
MT	28	9.8%	11.4%	35
OK	29	10.0%	3.5%	7
TN	30	10.2%	11.3%	34
NM	31	10.2%	8.5%	21
CO	32	10.3%	15.2%	47
OR	33	10.5%	13.0%	44
WA	34	10.5%	17.0%	50
MS	35	11.2%	8.8%	22
AK	36	11.7%	10.7%	31
ID	37	11.7%	11.5%	39
NH	38	12.1%	12.9%	43
AR	39	12.5%	7.3%	13
KS	40	12.6%	3.5%	6
VT	41	12.8%	11.6%	40
WI	42	13.0%	7.7%	17
CA	43	13.2%	16.3%	48
ME	44	13.4%	11.5%	38
MA	45	13.5%	11.4%	37
IN	46	13.5%	7.6%	16
WV	47	13.6%	7.3%	13
IL	48	14.4%	10.0%	29
HI	49	14.8%	16.9%	49
RI	50	14.9%	12.0%	41

Our model labor-intensive manufacturing operation is a manufacturer of trucks or buses, employing 300 people, chiefly in management, installation, maintenance, production, and assembly. The model assumes capital investment of $65 million, including a 250,000 square foot suburban industrial building owned by the business. Revenue is approximately $174 million with a gross profit ratio of 20 percent and earnings before tax of 7 percent. The equity ratio is assumed to be 30 percent. The apportionment methodology assumes 100 percent of property and payroll is in the state in which the manufacturer is located, while sales are assumed to be distributed among all 50 states in proportion to the relative population of each state.

Labor-intensive manufacturers with the lowest overall tax burdens tend to experience relatively light corporate income tax burdens, either due to low statutory rates or apportionment rules that limit the income subject to tax. Of the ten mature manufacturing operations with the lowest combined tax burdens, nine employ single sales factor apportionment for this firm type (or forgo corporate income taxes), and the one state that does not (Arizona) forgoes a throwback rule. Favorable apportionment rules are how a state like Maryland, with its 8.25 percent corporate income tax, can still look attractive for manufacturing, but not for many other firm types: the state gives preferential tax treatment to manufacturers with single sales factor apportionment, while many other businesses must use a three-factor formula with double-weighted sales.

Property taxes are less important to labor-intensive manufacturing operations than they are to capital-intensive operations, as the former have less equipment potentially subject to tax. Still, states which limit their property tax base to land and buildings offer a lower tax environment for these firms, all else being equal.

Similarly, while unemployment insurance tax burdens have the potential to be more significant to labor-intensive manufacturing, corporate income tax burdens are by far the most significant. Sixteen states offer withholding tax rebates, 24 states offer investment tax credits, and 24 states offer job tax credits to new labor-intensive manufacturers, all holding down—and in some cases eliminating—income tax burdens, at least for the first few years of operations. New manufacturing operations in states with high income taxes, unfavorable apportionment rules, and limited incentives tend to experience the highest aggregate tax costs.

Call Center

Our model call center is a relatively low-wage service business with 600 employees including management, sales, and administrative positions. It has a capital investment of $10 million and leases 100,000 square feet of Class A suburban office space, with revenue of approximately $29 million, earnings before tax of 7 percent, and an equity ratio of 100 percent. All property and payroll is located in state, though the firm's activities are assumed to serve customers and clients nationally, in proportion to the relative population of each state.

Unemployment insurance (UI) taxes play an outsized role in this firm's tax burden because call centers represent a labor-intensive business. As UI taxes are paid on a per-employee basis, state UI tax rates take on considerable salience for low-wage employers. Consequently, UI taxes tend to outstrip corporate income taxes and rank second only to property taxes as a share of a mature call center's overall tax burden. Property taxes represent, on average, the single largest tax expenditure for both new and mature call centers.

The impact of corporate income taxes, meanwhile, is heavily dependent upon sourcing rules. For instance, California imposes the lowest effective tax rate on mature call centers despite the state's high statutory corporate income tax rate since, due to a favorable benefits-received sourcing rule, very little of the firm's income is taxed in California. Arizona, Georgia, and Utah also stand out as states with dramatically lighter tax burdens on this firm due to benefits-received sourcing rules. Notably, of the ten states with the highest tax burdens for mature call center operations, only two—Illinois and Minnesota—have a benefits-received sourcing rule, and the Illinois operation is subject to a throw-out rule for services receipts attributable to a state where the taxpayer is not taxable, eliminating much of the advantage of benefits-received sourcing for this firm type.

For new firms, tax incentives—especially those aimed at lowering employment costs—are an important factor. Seven of the 14 states that offer withholding tax rebates to new call centers also offer among the ten lowest burdens overall. In some cases, these incentives (often refundable) are sufficient to yield a negative income tax burden, or even a negative overall tax burden. The costs of such generosity are, of course, borne by mature firms, including mature call centers in these states.

	Mature Rank	Mature Rate	New Rate	New Rank
CA	1	11.4%	19.2%	15
GA	2	12.0%	-15.8%	2
AZ	3	12.1%	20.7%	17
NE	4	12.5%	2.9%	3
SD	5	12.8%	18.9%	14
UT	6	13.1%	15.9%	10
AL	7	13.5%	17.2%	12
WY	8	14.4%	22.3%	19
MD	9	14.8%	24.4%	23
ME	9	14.8%	19.2%	16
WA	11	15.3%	25.5%	25
NC	12	15.7%	22.4%	20
OH	13	15.8%	14.0%	9
FL	14	16.3%	26.5%	27
MS	15	16.4%	11.0%	8
MI	16	16.4%	26.5%	26
OK	17	16.6%	4.0%	6
ND	18	16.8%	22.9%	21
KY	19	17.6%	3.2%	5
TX	20	17.9%	30.9%	38
VA	21	18.1%	26.9%	29
IA	22	18.8%	27.1%	30
WI	23	19.1%	3.0%	4
NM	24	19.2%	23.6%	22
TN	24	19.2%	25.5%	24
LA	26	19.6%	31.2%	40
CO	27	20.1%	29.1%	33
MT	28	20.3%	26.6%	28
VT	29	20.3%	16.8%	11
AR	30	20.3%	10.9%	7
MO	31	21.1%	32.3%	42
DE	32	21.3%	22.2%	18
OR	33	22.0%	29.2%	34
PA	34	22.3%	31.1%	39
NV	35	22.6%	34.9%	45
ID	36	23.1%	30.7%	37
IN	37	23.5%	17.9%	13
AK	38	23.7%	28.3%	32
KS	39	23.8%	31.9%	41
NH	40	24.2%	29.3%	35
SC	41	24.6%	27.8%	31
NY	42	24.9%	33.4%	44
WV	43	25.6%	36.6%	47
HI	44	26.3%	32.7%	43
MN	45	26.8%	38.0%	49
CT	46	26.9%	35.4%	46
IL	46	26.9%	29.3%	36
MA	48	28.0%	37.9%	48
RI	49	30.7%	42.2%	50
NJ	50	35.4%	-53.5%	1

Distribution Center

	Mature Rank	Mature Rate	New Rate	New Rank
WY	1	12.9%	21.5%	6
CA	2	15.2%	26.3%	17
AL	3	16.4%	22.3%	7
GA	4	18.7%	13.0%	1
OK	5	19.1%	24.6%	9
WA	6	19.4%	33.0%	27
UT	7	19.5%	18.4%	3
NC	8	19.9%	24.9%	11
NV	9	20.2%	33.7%	30
AZ	10	20.3%	32.6%	26
HI	11	21.7%	25.0%	12
NM	12	21.8%	27.4%	19
OR	13	22.0%	28.5%	22
MD	14	22.0%	37.2%	32
VA	15	22.1%	35.2%	31
KY	16	22.7%	24.7%	10
AR	17	22.9%	27.9%	21
ME	18	22.9%	31.3%	25
SD	19	23.1%	33.1%	28
NE	20	23.9%	29.0%	24
ND	21	25.2%	23.7%	8
ID	22	25.6%	33.6%	29
MS	23	25.6%	20.0%	5
MT	24	26.3%	26.1%	16
AK	25	26.5%	19.8%	4
WI	26	26.9%	37.4%	33
TN	27	27.1%	27.0%	18
OH	28	27.6%	14.9%	2
FL	29	28.3%	44.2%	40
DE	30	28.5%	25.0%	13
MO	31	28.6%	25.6%	15
MI	32	29.0%	45.0%	41
WV	33	31.1%	41.7%	37
LA	34	31.6%	42.4%	39
TX	35	32.2%	52.7%	46
CT	36	32.3%	42.3%	38
NH	37	32.4%	38.0%	34
VT	38	32.7%	28.7%	23
CO	39	35.2%	46.0%	43
IL	40	36.0%	25.5%	14
IA	41	38.1%	41.6%	36
MN	42	38.4%	45.6%	42
KS	43	38.6%	50.6%	45
NY	44	40.5%	49.0%	44
IN	45	40.8%	27.9%	20
PA	46	41.0%	56.8%	49
MA	47	41.1%	55.6%	48
RI	48	41.8%	55.2%	47
SC	49	45.6%	68.1%	50
NJ	50	48.2%	41.5%	35

Our model distribution center is a warehouse facility operated by an independent third-party logistics provider for a large company. This firm has 95 employees in transportation and material handling, administrative, and management occupations, and leases 350,000 sq. ft. of Class B suburban industrial space. With a capital investment of $11 million, the firm has $13 million in revenue with a gross profit ratio of 68 percent and earnings before tax of 12 percent. The equity ratio is assumed to be 50 percent, and the apportionment methodology assumes 100 percent of property and payroll are in state. The income-producing activities of the distribution center are assumed to occur in state, with the benefit of those activities also being received in state. However, the sole customer contracting for the operation of the distribution center is assumed to be located out of state.

Property taxes are far and away the most significant tax type for both new and mature distribution centers, frequently responsible for more than two-thirds of a firm's overall tax burden. Predictably, the ten mature operations with the lowest overall tax burdens all experience property tax burdens among the lowest third nationwide, and the states that impose the highest property tax burdens tend to rank among the worst for aggregate tax burden. At the extreme, property taxes account for an astonishing 94 percent of the state and local tax burden experienced by the new distribution center in South Carolina. This phenomenon is largely the result of job tax credits and withholding tax rebates that essentially wipe out the firm's income tax burden and much of its sales tax burden.

For these firms, property taxes are about more than just millages. Equally, if not more important, is whether a state's property tax burden extends to inventory, business equipment, or both. For instance, states like Indiana, Massachusetts, Rhode Island, and South Carolina impose unusually high property tax burdens on mature operations in significant part because their property taxes extend beyond land and buildings.

Twenty-six states offer property tax abatements to new distribution centers, which substantially lower these firms' effective tax rates, although in many cases these benefits may be short-lived, exposing firms to heavy tax burdens once the abatements expire. Corporate income taxes can also be a significant component of distribution centers' effective tax rates, albeit not on par with property taxes. Consequently, many new distribution centers benefit from investment tax credits which reduce corporate income tax liability.

Chapter 3

Effective Tax Rates by State

For lawmakers and business leaders seeking greater detail on the business taxes in their state, this chapter contains profiles of each of the 50 states plus the District of Columbia. Each state page includes a short explanation of the factors affecting effective tax rates imposed on key firm types. Typically, we identify the areas in which the state performed best and worst and explain which factors in the state's tax system produced those results.

These points are supported by an explanation of key components of the state's tax system that factored into the Tax Foundation model then calculated by KPMG, along with summary charts showing effective tax rates across both new and mature firms. The charts also display the degree to which each major tax component contributes to the overall burden. However, when a firm experiences negative tax liabilities in one or more categories, we omit such stratification, though the full component breakdown for all firms can be found in Appendix C. States' mature firm rankings are indicated on the charts beneath each firm type.

Each state's corporate income, individual income, state sales, and local sales tax rates are also enumerated for ease of reference. These rates are accurate as of our study's April 1, 2014 snapshot date; subsequent changes through the first half of 2015 are indicated in footnotes and generally discussed on state pages, but are not incorporated into our modeling of firms' effective tax rates.

In this edition, additional data relevant to those wishing to dig deeper—including apportionment and sourcing rules, sales and property taxes, unemployment insurance tax rates, gross receipts taxes, and the incentive programs offered by states—have been moved to the Appendices, where they are displayed in tables for ease of comparison with other states.

Alabama

With the exception of the research and development (R&D) facility, all mature firm types experience lighter-than-average overall tax burdens in Alabama despite the state's throwback rule and unfavorable sourcing rules. In addition to these sourcing rules, which subject out-of-state service income (in states with which the firm lacks nexus) to taxation at the location where the income-producing activity took place, Alabama also imposes a throwout rule on service receipts.

Alabama generally imposes a below-average income tax burden on the firm types we modeled. However, R&D facilities are a notable exception, as the state foregoes the generous incentives many states offer for this firm type. The mature R&D facility in the state ranks 44th nationwide with an effective tax rate of 14.5 percent, while the new facility experiences a 15.8 percent effective tax rate. Furthermore, manufacturing machinery and R&D equipment is subject to the sales tax, although manufacturing machinery is taxed at a reduced sales tax rate.

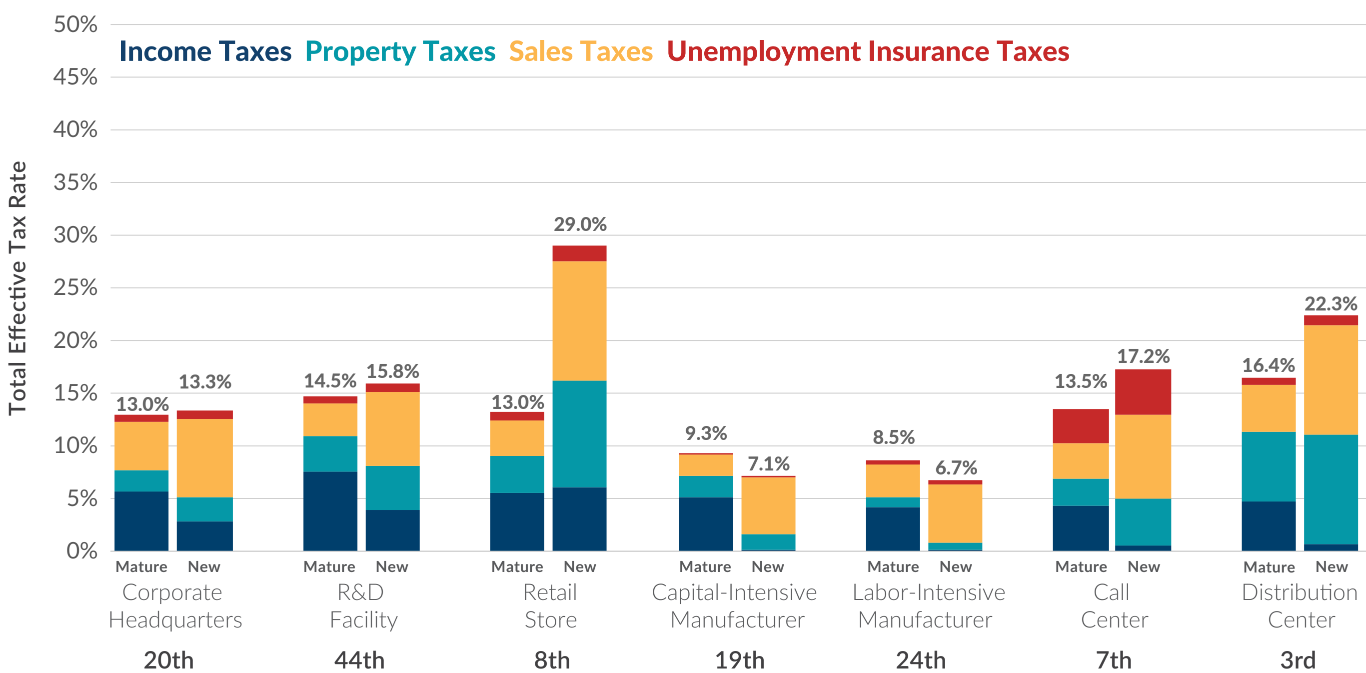
Distribution centers fare particularly well in Alabama, with the mature operation ranking third nationwide. The state's lowest-in-the-country property taxes for mature distribution centers yield a property tax bill 66 percent below the national average. Low property tax burdens are also an important contributing factor in the low tax burdens experienced by call centers and retail operations.

Alabama is one of 18 states with an antiquated capital stock tax, hindering capital formation.

Top Tax Rates

Tax	Rate
Corporate Income	6.5%*
Individual Income	5.0%
State Sales	4.0%
Avg. Local Sales	4.85%

* Decreased to 6.0 percent in 2015, after the snapshot date for our study.



Alaska

Alaska's high 9.4 percent top corporate income tax rate is exacerbated for most firms by the state's evenly-weighted three-factor apportionment formula. The state also imposes a throwback rule on the sale of goods into states with which a firm lacks nexus and sources services income to the location of the income-producing activity, subjecting most service income to in-state taxation.

Alaska foregoes an individual income tax, which can be of significance to individuals and pass-through entities, although it has no bearing on the firms in our study.

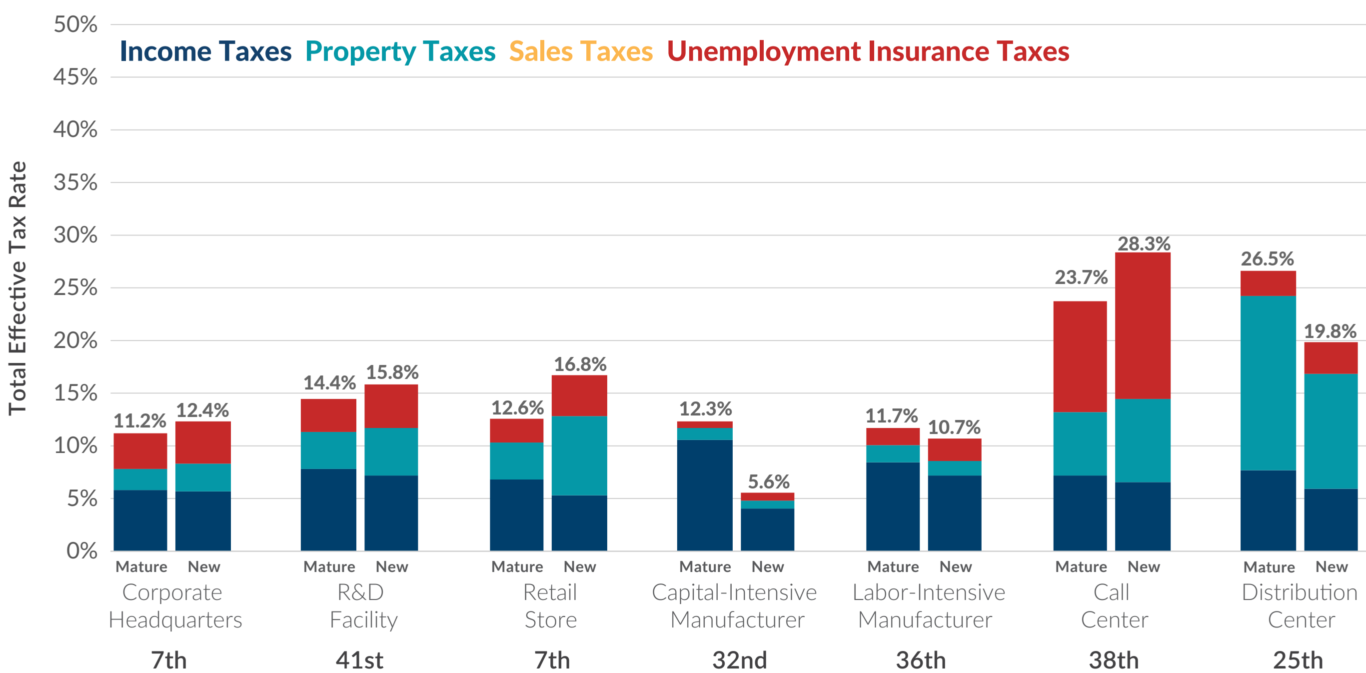
By also doing without a state-level sales tax, Alaska offers unusually attractive effective tax rates to retail stores, even though we only examine the firm's sales tax costs on business inputs, and not the tax imposed on goods sold to consumers. Retail operations are rarely on the receiving end of tax incentives, so the base structure of the state's tax code—particularly doing without one of the major taxes—takes on outsized importance for them. The absence of a sales tax also benefits distribution centers in Alaska, with the tax burden further lightened for new operations by a generous property tax abatement.

Conversely, high corporate income tax and unemployment insurance tax burdens drive up tax costs for many firms, including manufacturing operations, R&D facilities, and call centers. The mature call center ranks 38th nationwide with a 23.7 percent effective tax rate.

Alaska's property tax base varies by locality, but can include equipment and inventory, driving up costs for many firms. The state does, however, offer a 100 percent property tax abatement for the first five years of operation for qualifying firms. With the exception of the property tax abatement, Alaska largely eschews incentives for newly established operations.

Top Tax Rates

Corporate Income	9.4%
Individual Income	—
State Sales	—
Avg. Local Sales	1.69%



Arizona

All of our model firms experience below-average tax costs for mature operations in Arizona. The state's apportionment formula weights sales at 85.0 percent, with property and payroll at 7.5 percent each, with an optional alternative double-weighted sales factor apportionment formula. The state does not impose a throwback rule, but does have unfavorable sourcing rules for Arizona firms selling services out of state.

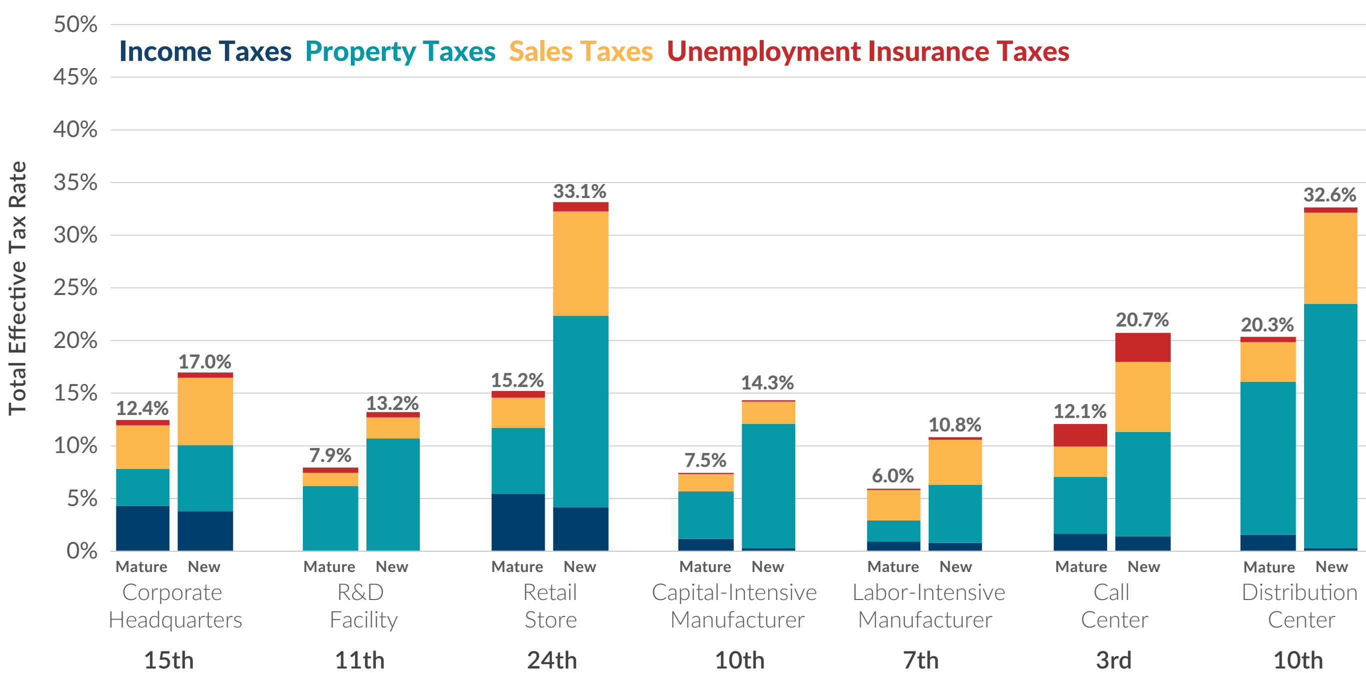
Arizona is one of only a handful of states not to offer property tax abatements to new firms, which helps drive the comparatively high effective tax burdens for new manufacturing operations, but which also enables the state to have lower, more neutral taxes over the course of a firm's existence. Mature manufacturing firms experience low tax burdens in Arizona—7.5 percent for mature capital-intensive manufacturing operations, compared to 14.3 percent for new operations—despite a property tax that includes equipment. The new firm's higher tax burden is driven by initial expenses and acquisitions that are subject to tax.

A relative dearth of incentives (such as property tax abatements and investment credits) results in above-average tax burdens for new operations excepting call centers, and below-average burdens for all mature operations, many of which experience a low corporate income tax burden in particular.

The state offers both a job creation credit and a research and development (R&D) incentive. Furthermore, manufacturing machinery and R&D equipment are exempt from the sales tax, which also assists in keeping tax costs modest for these firms, and particularly for new firms with more upfront equipment costs.

Top Tax Rates

Tax	Rate
Corporate Income	6.5%
Individual Income	4.54%
State Sales	5.6%
Avg. Local Sales	2.56%



Arkansas

Mature firms generally experience above-average tax burdens in Arkansas, which has high sales taxes, unfavorable apportionment and service sourcing rules for most firms, and a throwback rule.

Arkansas is one of the few states to tax both equipment and inventories under its property tax, though property tax rates in the state tend to be fairly low, keeping the effective property tax burden modest. However, new firms can receive a 65 percent abatement of their property tax burden for 15 years.

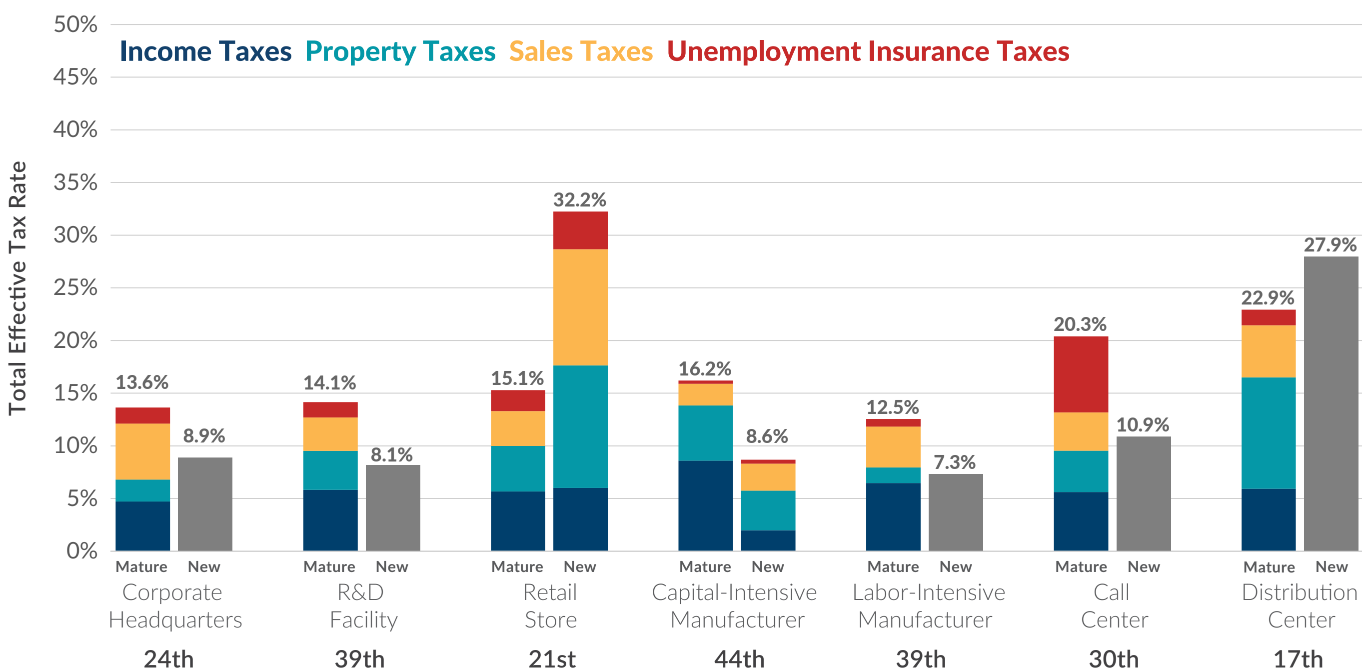
Manufacturing firms experience particularly high tax burdens in Arkansas, which can be attributed to a high combined state and local sales tax rate, an antiquated capital stock tax, and a slightly above-average corporate income tax burden on manufacturing. The mature labor-intensive manufacturing operation ranks 39th nationwide with an effective tax rate of 12.5 percent, while the mature capital-intensive operation experiences a 16.2 percent tax burden, coming in 44th nationwide.

Arkansas offers sizable withholding tax rebates and generous investment and job tax credits for newly-established businesses, and manufacturing machinery is exempt from the sales tax for new or expanded facilities. In fact, newly-established research and development (R&D) facilities, call centers, distribution centers, and labor-intensive manufacturing operations receive tax incentives that more than offset income tax liability, yielding refunds that can be used to offset other tax liabilities as well.

Although Arkansas' taxes tend to be high, they are also fairly neutral across mature firm types, with effective tax rates ranging from 12.5 to 22.9 percent. Most states impose far more disparate tax burdens on different types of operations.

Top Tax Rates

Tax	Rate
Corporate Income	6.5%
Individual Income	7.0%
State Sales	6.5%
Avg. Local Sales	7.74%



Grey bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

California

California imposes high tax burdens on most mature businesses, with the notable exception of call centers and distribution centers, which enjoy extremely attractive rates. The mature call center ranks first for its firm type with a low 11.4 percent effective tax rate.

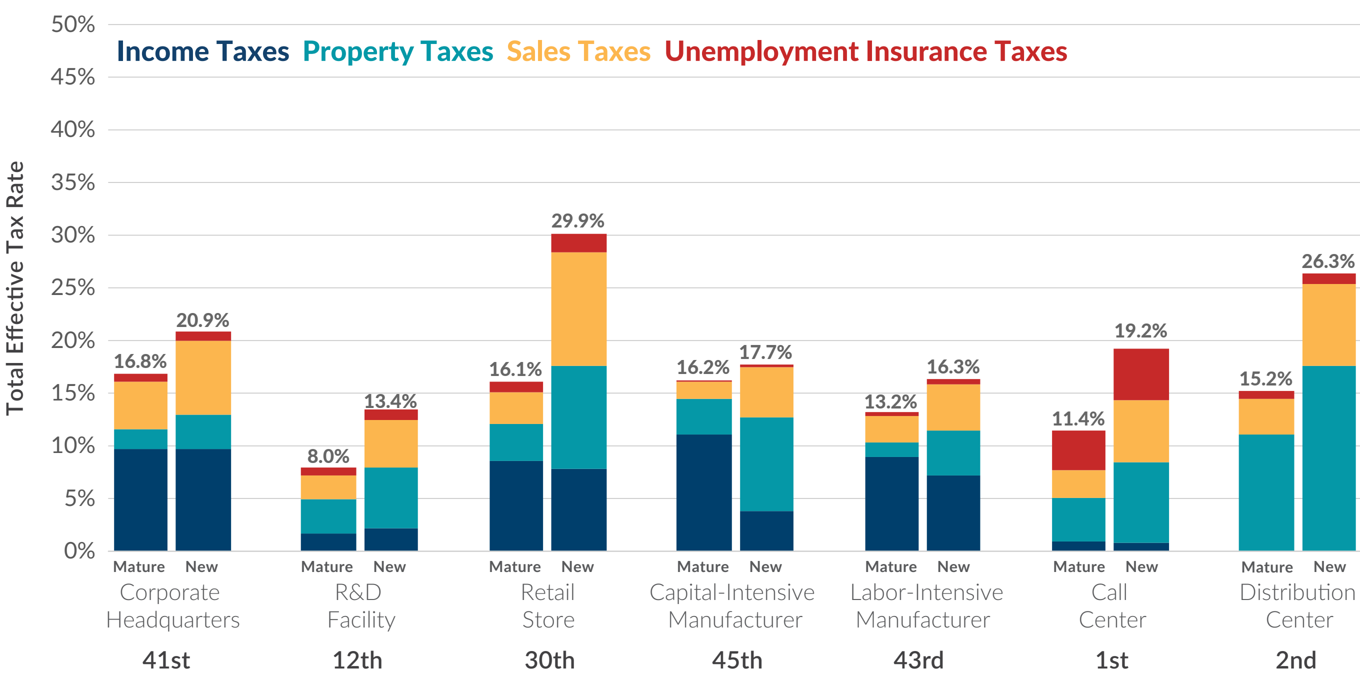
The state's high income and sales taxes drive up tax costs for firms whose employees and sales are within the state's borders, which is why, despite the state's move to single sales factor apportionment, the manufacturing operations, corporate headquarters, and retail stores in our study all perform poorly. The mature corporate headquarters, hit particularly hard by the state's high corporate income tax, ranks 41st with a 16.8 percent effective tax rate.

Conversely, the state's favorable benefits-received sourcing rules, along with relatively low property and unemployment insurance tax burdens, help catapult call centers and distribution centers to first- and second-ranked in the nation, respectively, for their firm types. Due to benefits-received sourcing rules, very little of these firms' income is exposed to California's high statutory rates.

Generous incentives zero out the corporate income tax burden for new research and development (R&D) facilities in the state, whereas corporate income tax burdens are significantly above the national average for all other firm types that do business primarily in state. Beyond R&D credits, however, California is notable for having very few tax incentives for newly established operations. Although incentives can lower costs for new firms, that cost is shifted to mature operations, which could result in prohibitive tax burdens in a state that already imposes unusually high taxes.

Top Tax Rates

Top Tax Rates	
Corporate Income	8.84%
Individual Income	13.3%
State Sales	7.5%
Avg. Local Sales	0.94%



Colorado

Colorado has higher-than-average tax burdens for all firm types except mature corporate headquarters. The state's low, single-rate corporate income tax, along with a modest unemployment insurance tax, helps compensate for high property tax burdens on mature call centers and retail operations. The state's property taxes are consistently high across firm types, due in part to the inclusion of equipment in the property tax base. High property tax burdens are a particularly important factor for both new and mature manufacturing operations.

The property tax burden for new capital-intensive operations is nearly three times the national average; for labor-intensive operations, it is more than twice the national average. The state does offer property tax abatements for new firms, but they are relatively modest.

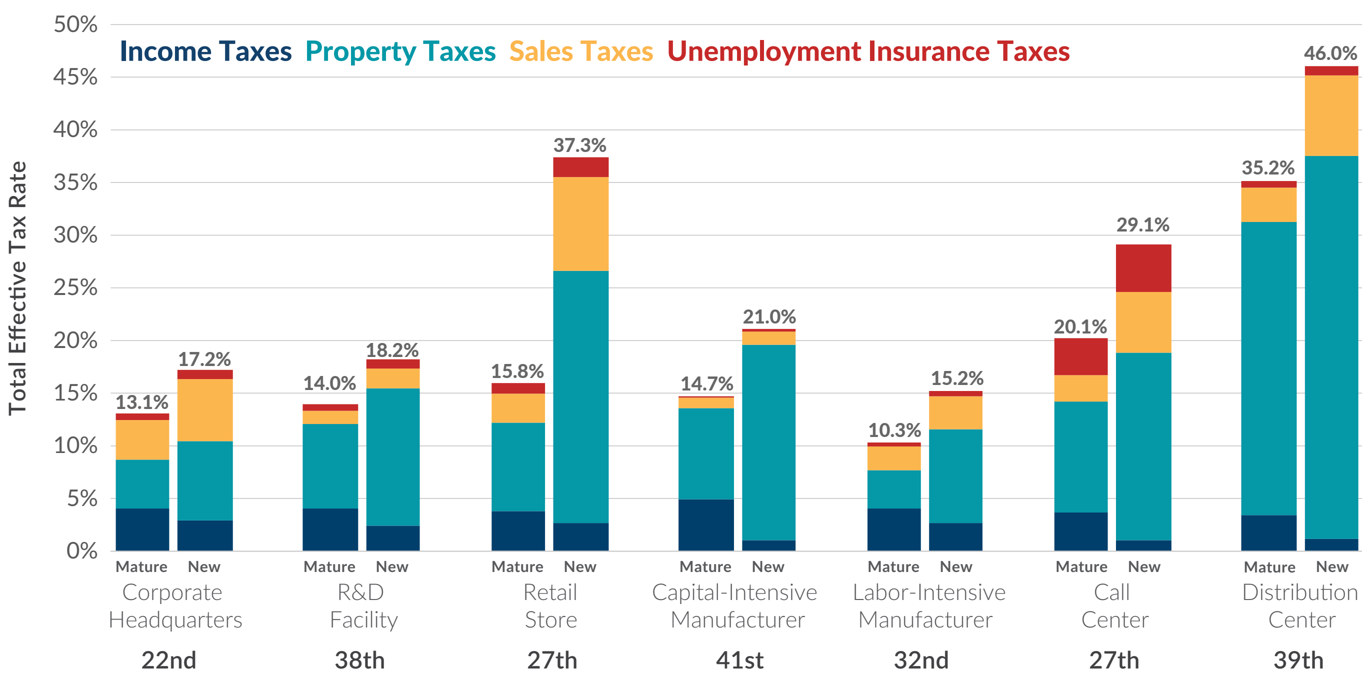
Colorado offers both job creation and investment incentives for qualifying new firms, but they provide relatively little benefit to the firms we modeled. The state does not offer research and development (R&D) tax credits, and consequently, both the new and mature R&D firms experience roughly average tax burdens.

Although the state's corporate income tax rate is highly competitive, Colorado's single sales factor apportionment, along with sourcing rules and a throwback rule exposing all income to in-state taxation, increases tax costs for firms that do business out of state.

Colorado is unique inasmuch as its local sales tax rates tend to far outstrip the low statewide rate; consequently, the location a firm chooses within Colorado can be highly significant in terms of sales tax liability.

Top Tax Rates

Corporate Income	4.63%
Individual Income	4.63%
State Sales	2.9%
Avg. Local Sales	4.51%



Connecticut

Connecticut imposes an above-average tax burden on all non-manufacturing operations, due in large part to the state's high corporate income tax rate. The state then accentuates its already high corporate income tax with a 20 percent surtax on businesses with at least $100 million in annual gross income, bringing the tax rate to the equivalent of 9.0 percent for these firms.

Connecticut's tax burden has increased across all categories since our last edition, with mature research and development (R&D) facilities and new retail operations seeing the greatest increase in their tax burdens relative to other states. The state's investment credit, withholding tax rebate, and R&D credit cannot overcome the state's high statutory rates.

Manufacturing and services firms in Connecticut benefit from single sales factor apportionment, while retail uses double-weighted sales factor apportionment. Since our model retail firm is assumed to sell exclusively in state, either apportionment formula would have the same impact on it.

Connecticut ranks 12th for mature labor-intensive manufacturing firms, which have a total effective tax rate of 6.7 percent. The state also ranks 14th for mature capital-intensive manufacturing, with an effective tax rate of 8.0 percent. These relatively light tax costs are driven by the firms' low income tax burdens, which benefit from Connecticut's single sales factor income apportionment formula and the lack of a throwback rule. The state does, however, extend its property tax base to include equipment.

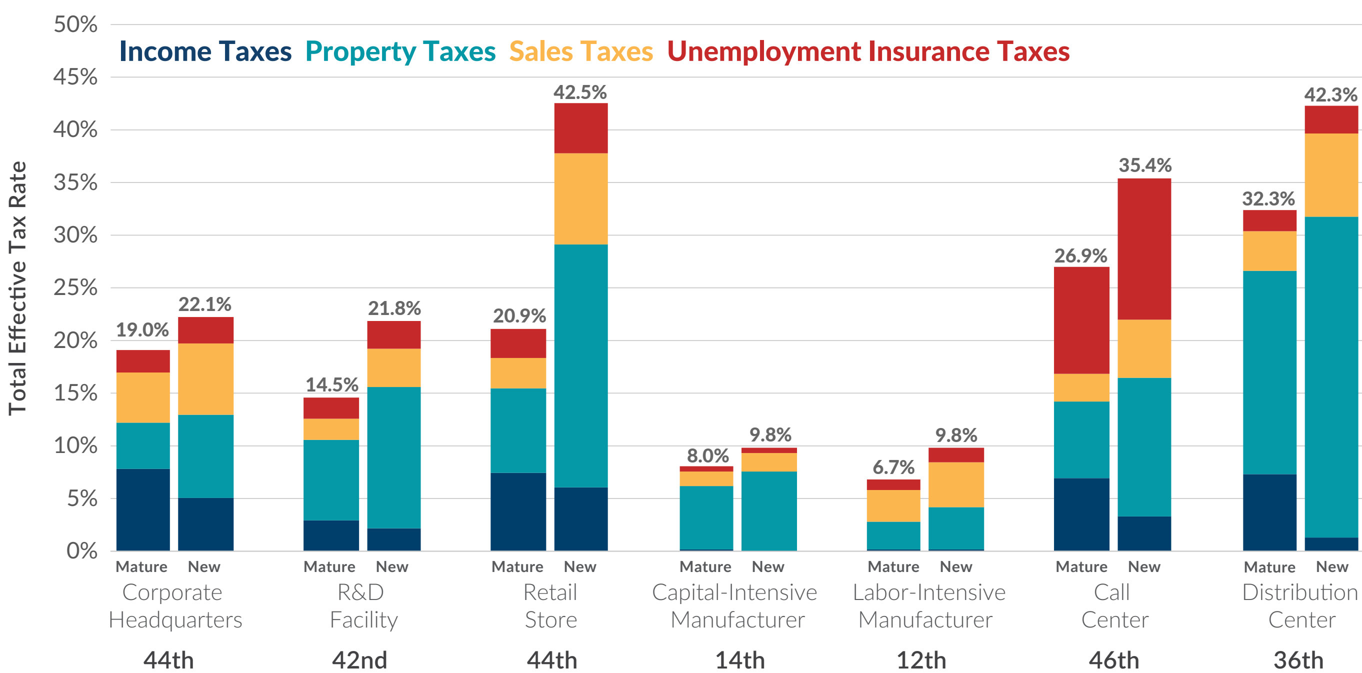
Finally, Connecticut imposes the highest capital stock tax in the country, and is one of only 18 states imposing any such a tax, which can greatly hinder capital formation.

Top Tax Rates

Corporate Income	9.0%*
Individual Income	6.7%†
State Sales	6.35%
Avg. Local Sales	—

* Rate includes a 20 percent surtax that effectively increases the rate from 7.5 to 9 percent. Surtax is required by businesses with at least $100 million in annual gross income.

† Connecticut has an income "recapture" provision whereby the benefit of lower tax brackets is removed for the top bracket.



Delaware

As an incentive-heavy state, Delaware imposes modest to middle-of-the-road tax costs on most new firm types in our study but does so at the expense of mature operations.

A generous investment tax credit helps new capital-intensive manufacturing firms face a low effective tax rate of 4.6 percent, just over half of the median effective tax rate across all states. A low property tax burden (largely because Delaware does not tax equipment or inventory) and the lack of a state sales tax (which significantly reduces the cost of inputs) also contribute.

Conversely, Delaware ranks as one of the highest tax cost states for mature retail operations. Contributing to this ranking is the fact that Delaware is one of only a handful of states with a gross receipts tax, with this tax imposing a retail rate higher than those for manufacturing and services, which more or less cancels out the benefit conferred by the lack of a sales tax. High income tax rates and Wilmington's very high property tax rate add to the tax burden.

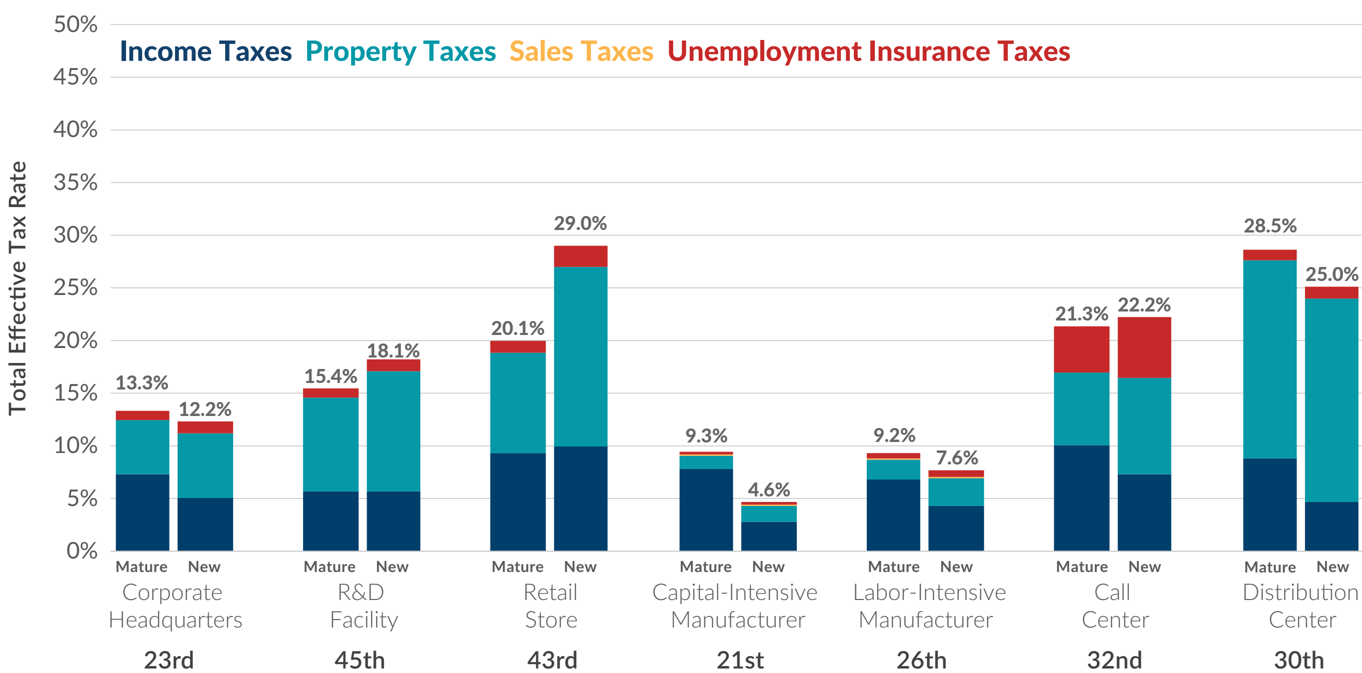
Similarly, Delaware is among the highest tax cost states (45th) for mature research and development (R&D) operations. Delaware's gross receipts tax is less of a factor for this firm type, but the firm still suffers from a moderately high income tax burden and Wilmington's high property taxes.

Delaware uses evenly-weighted three-factor apportionment, though the state foregoes a throwback rule. The apportionment formula, along with the state's unfavorable sourcing rules based on income-producing activity, work to the detriment of in-state firms selling goods or services out of state.

Top Tax Rates

Tax	Rate
Corporate Income	8.7%*
Individual Income	6.6%
State Sales	—
Avg. Local Sales	—

* Delaware also levies a gross receipts tax which varies by industry, ranging from 0.0996 - 0.7468 percent.



Florida

Florida's sourcing rules for service income, which allow the income to be sourced where the benefit of the service is received, substantially advantage firms such as call centers, which sell much of their services outside of their home state. Consequently, Florida ranks 14th for mature call centers with an effective tax rate of 16.3 percent. Also contributing to this comparatively modest tax cost is a low unemployment insurance tax burden.

For similar reasons, Florida ranks 11th for mature corporate headquarters with an effective tax rate of 11.7 percent. This firm also benefits from the state's double-weighted sales factor apportionment, though it works to the detriment of many other firms in the study.

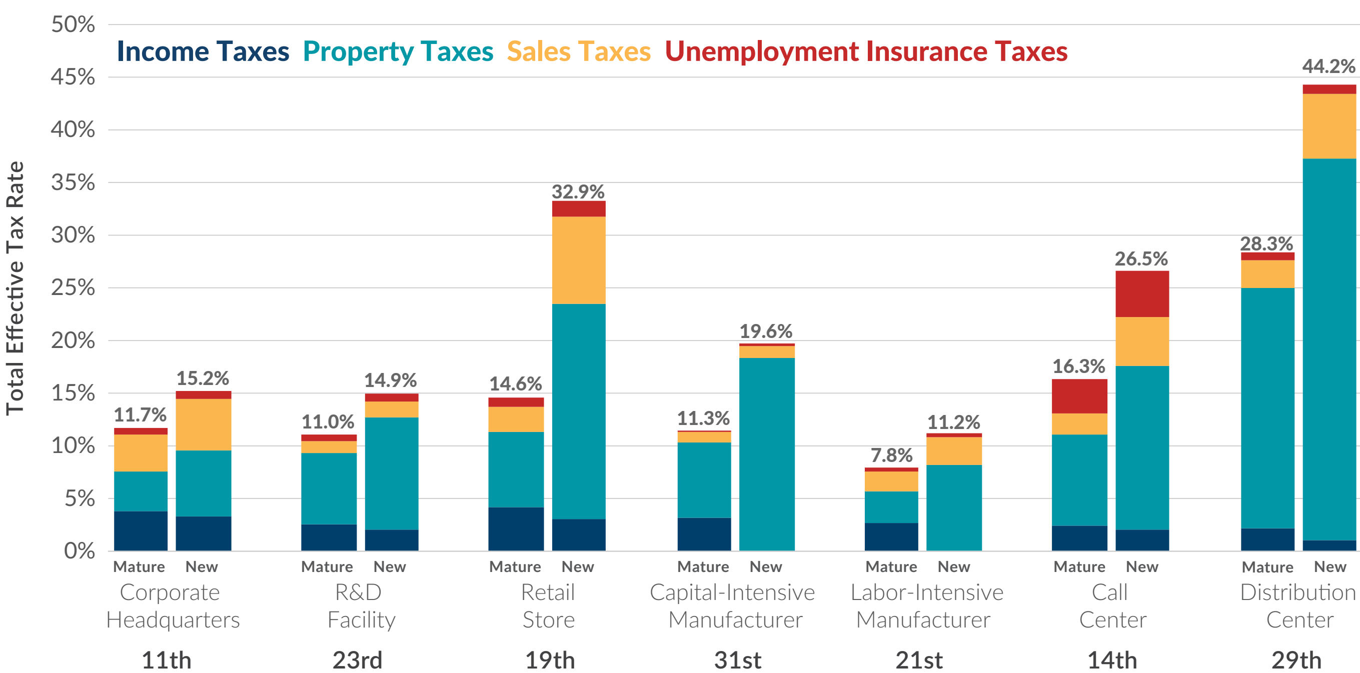
The state has an above-average rate (11.2 percent) for newly established labor-intensive manufacturing firms, despite the fact that Florida has the second-most generous investment tax credit in the nation, which actually exceeds the firm's total income tax costs. For this firm type, property tax levels are often the dominant factor, and in Florida, this firm pays twice the national average in property taxes since the state does not offer property tax abatements for newly-established firms.

Similarly, Florida has one of the highest tax costs for the new capital-intensive manufacturing firm despite offering the most generous investment tax credit—eleven times the average nationally, to the point of yielding a negative income tax rate. Offsetting the negative income tax burden is a property tax that is nearly three times the national average for new manufacturing firms, plus a high sales tax burden on business inputs.

Florida foregoes an individual income tax, which can be highly significant to individuals and pass-through entities, but does not affect the firms considered in our study.

Top Tax Rates

Tax	Rate
Corporate Income	5.5%
Individual Income	—
State Sales	6.0%
Avg. Local Sales	0.63%



Georgia

Georgia offers a favorable environment for manufacturing operations, with the tax burdens for mature labor- and capital-intensive manufacturing firms both ranking in the top ten due to a friendly income apportionment formula—a single sales factor and no throwback rules—and relatively low income and unemployment insurance tax burdens.

The state's sourcing rules for services similarly advantage operations such as call centers that sell their services out of state, and consequently, Georgia ranks second overall for mature call centers. New call centers benefit from these sourcing rules and generous tax incentives, actually providing a negative effective tax rate (-15.8 percent) for the operation as a whole.

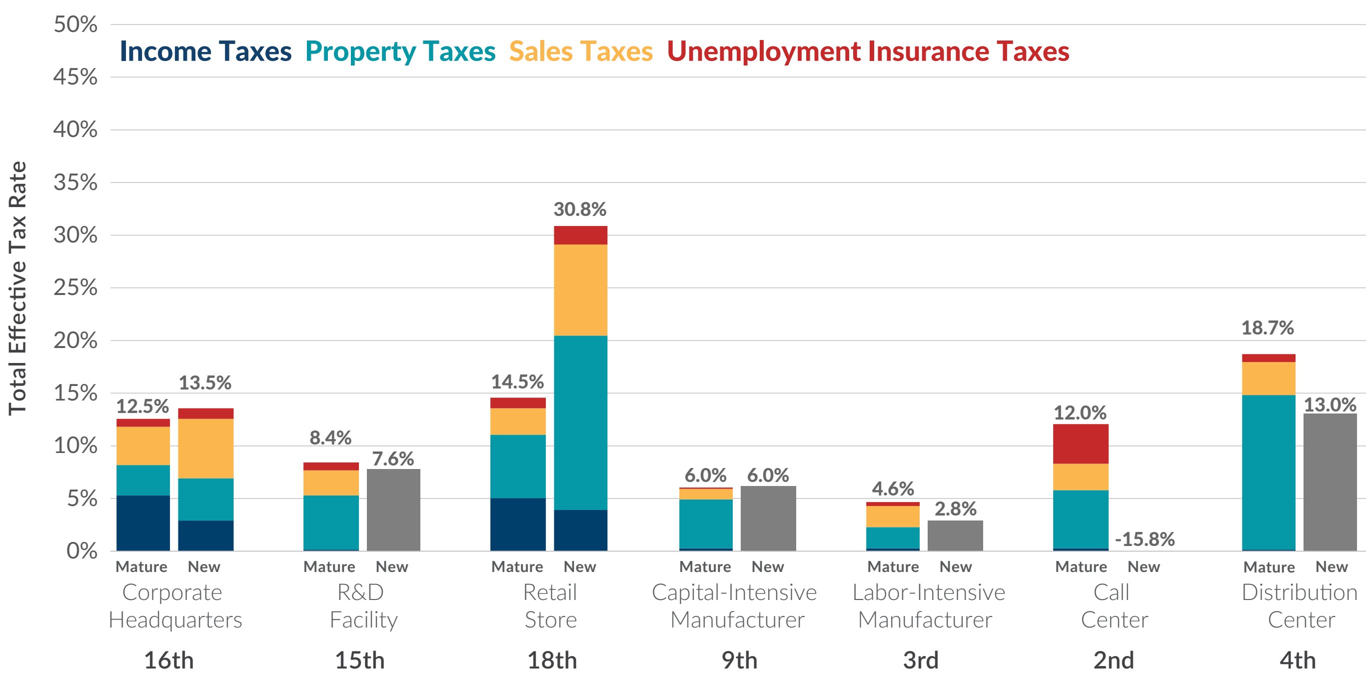
Georgia's property tax applies to equipment and inventory in addition to land and buildings, though property tax rates are generally low, and new operations benefit from a generous property tax abatement plus a freeport exemption for manufacturing inventory. Nevertheless, property tax burdens for mature distribution centers are roughly middle-of-the-pack, even as the firm enjoys an extremely low income tax burden.

The firm type that performs the worst in Georgia compared to its peers in other states, new corporate headquarters, experiences an effective tax rate of 13.5 percent. This operation does not benefit from the state's single sales factor apportionment or sourcing rules, with all of its income subject to in-state taxation, albeit at a reasonably low 6.0 percent rate.

Georgia exempts manufacturing machinery from the sales tax, but imposes the tax on research and development (R&D) equipment. However, new R&D firms do receive incentives valued at 10 percent of in-state R&D expenses.

Top Tax Rates

Top Tax Rates	
Corporate Income	6.0%
Individual Income	6.0%
State Sales	4.0%
Avg. Local Sales	2.99%



Grey bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Hawaii

Excepting heavily incentivized research and development (R&D) operations, mature firms generally experience above-average tax costs in Hawaii. The state sources service income to the site of the income-producing activity, exposing all service income from operations like call centers and distribution centers to in-state taxation.

Despite relatively modest corporate income tax rates and the state's decision to forego a throwback or throwout rule, its sourcing rules drive up costs for both call centers and distribution centers. Distribution centers, however, benefit from very low property taxes, substantially lowering their overall tax burden.

A generous new tax credit for research activities boosted the mature R&D firms to 4th nationwide. The effective tax rate for new R&D firms actually fell into negative territory at -0.6 percent due to the refundability of the credit, which covers 20 percent of in-state R&D expenses.

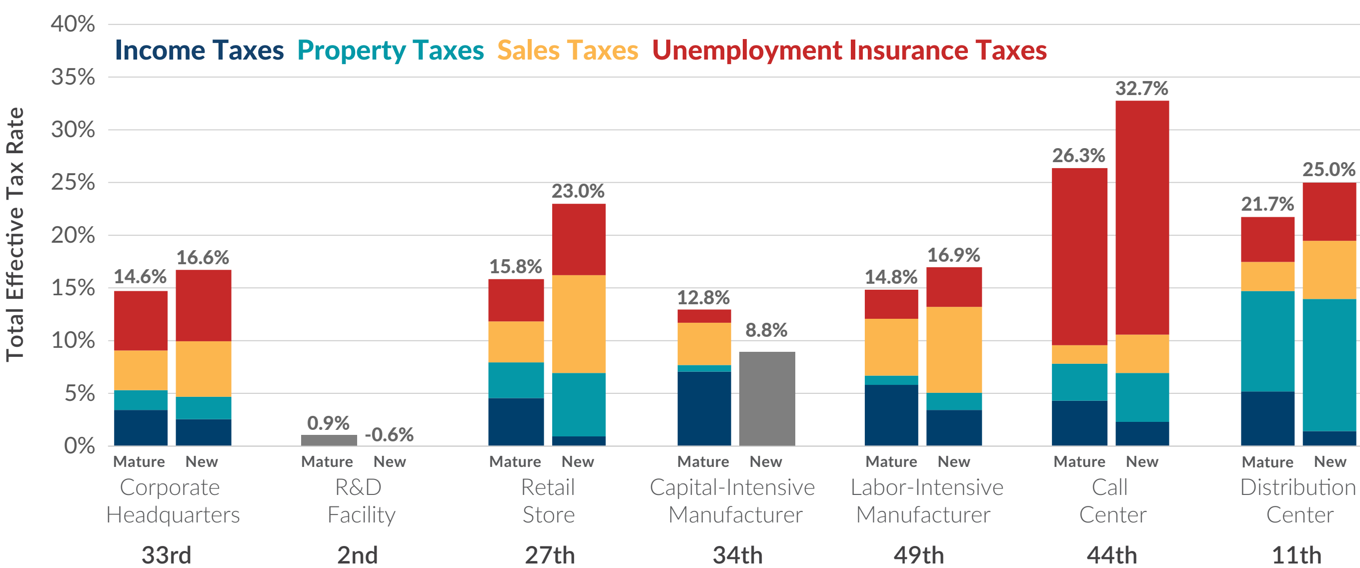
More than in other states, Hawaii's sales tax (called the General Excise Tax) applies to sales between businesses rather than just to the end consumer. As such, manufacturing machinery is taxed in Hawaii, so the cost of equipment and other inputs for manufacturing firms is significantly higher in Hawaii than in other states.

Hawaii imposes some of the highest tax costs in the nation on both new and mature labor-intensive manufacturing, with effective tax rates of 16.9 and 14.8 percent respectively, both over 60 percent above the median rates nationwide. The sales tax on manufacturing machinery is a significant factor, and Hawaii's three-factor apportionment formula, which equally weights sales, assets, and payroll, works against firms with sales largely out of state. These operations also experience a high unemployment insurance tax burden.

Hawaii's unique tax structure produces highly disparate tax burdens across firms, with effective tax rates ranging from 0.9 to 26.3 percent for mature operations and -0.6 percent to 32.7 percent for new operations. While few states achieve anything close to tax neutrality across firm types, Hawaii stands out as particularly lacking in this regard.

Top Tax Rates

Corporate Income	6.4%
Individual Income	11.0%
State Sales	4.0%
Avg. Local Sales	0.35%



Grey bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Idaho

Idaho has above-average tax burdens for most mature firm types. High unemployment insurance (UI) taxes, a throwback rule, and sourcing of services to the site of income-producing activity combine to drive up tax costs, particularly for low wage, labor-intensive operations like call centers.

The state's double-weighted sales factor apportionment formula works to the detriment of several firms in our study, including the manufacturing operations. The state's property tax also extends to equipment, though manufacturing machinery and research and development (R&D) equipment are exempt from sales taxes.

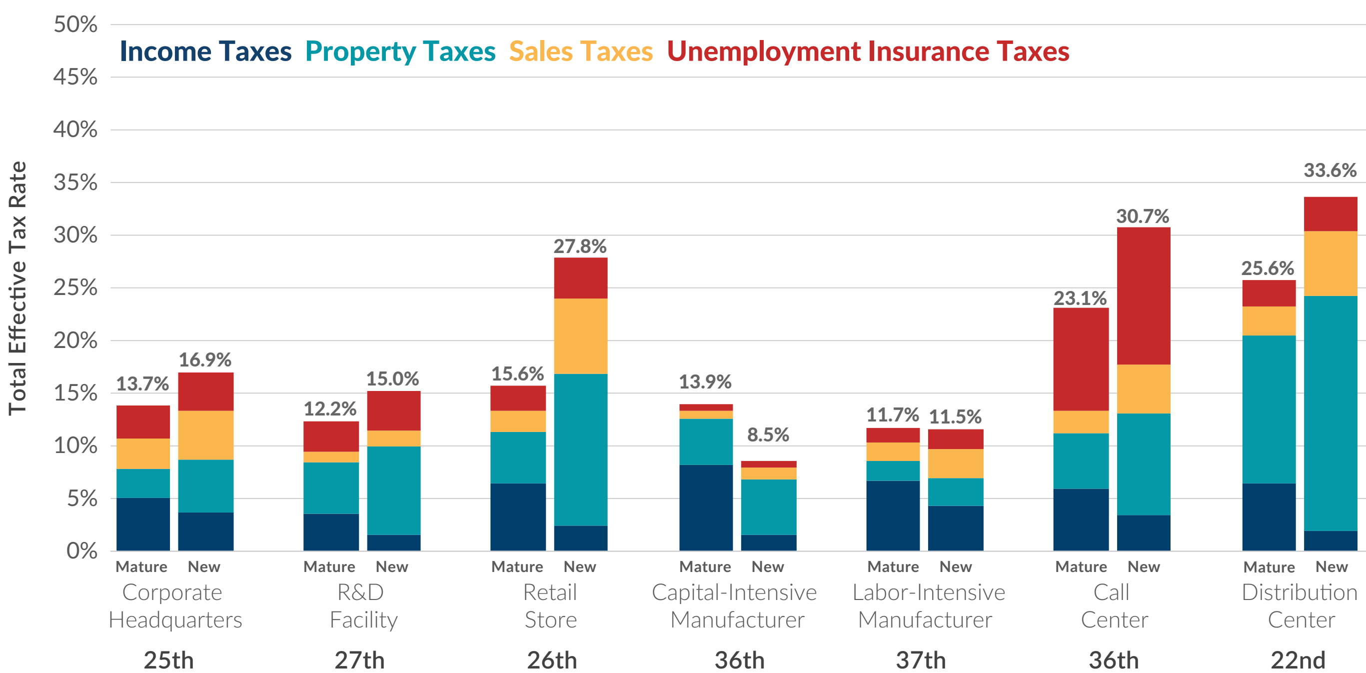
The state offers both an investment tax credit and a modest nonrefundable new jobs credit, but even taken together, they are not enough to overcome the state's high corporate income tax and sourcing rules that expose all in-state income producing activity to Idaho taxes. Hence, new as well as mature Idaho firms face consistently high income tax burdens across the board.

The property tax on equipment also drives up tax costs for the manufacturing operations and R&D facility, though R&D credits moderate the burden for that operation somewhat.

Idaho ranks 22nd for mature distribution centers with an effective tax rate of 25.6 percent. Although this operation has one of the highest UI tax burdens for this firm type in the nation, it benefits from a low sales tax burden and modest property tax burden.

Top Tax Rates

Corporate Income	7.4%
Individual Income	7.4%
State Sales	6.0%
Avg. Local Sales	0.78%



Illinois

Illinois ranks in the bottom third of states for all seven mature firm types, even though the state consistently offers one of the more generous withholding tax credits in the nation. For many firms, especially those with long time horizons, a competitive, structurally sound tax system is significantly more important than the availability of incentives.

This study's snapshot date of April 1, 2014 precedes partial sunsets of temporary individual and corporate income tax increases. The individual income tax is now 3.75 percent as of January 1, 2015, while the corporate income tax declined to 7.75 percent. This corporate income tax rate combines both the traditional corporate income tax and a second tax on the same base, known as the "personal property replacement tax" for the repealed tax for which it was intended as a revenue replacement.

The state's high income tax rates at the study's snapshot date lead to an above-average corporate income tax burden for all mature firm types. Corporate headquarters, call centers, retail stores, and capital-intensive manufacturing operations also experience a high combined state and local sales tax rate.

With an effective tax rate of 26.9 percent, the burden on mature call centers in Illinois is among the highest in the nation despite the state's favorable benefits-received sourcing rule. However, much of the advantage of benefits sourcing is eliminated because the firm is subject to a throw-out rule for service receipts attributable to a state where the taxpayer is not taxable.

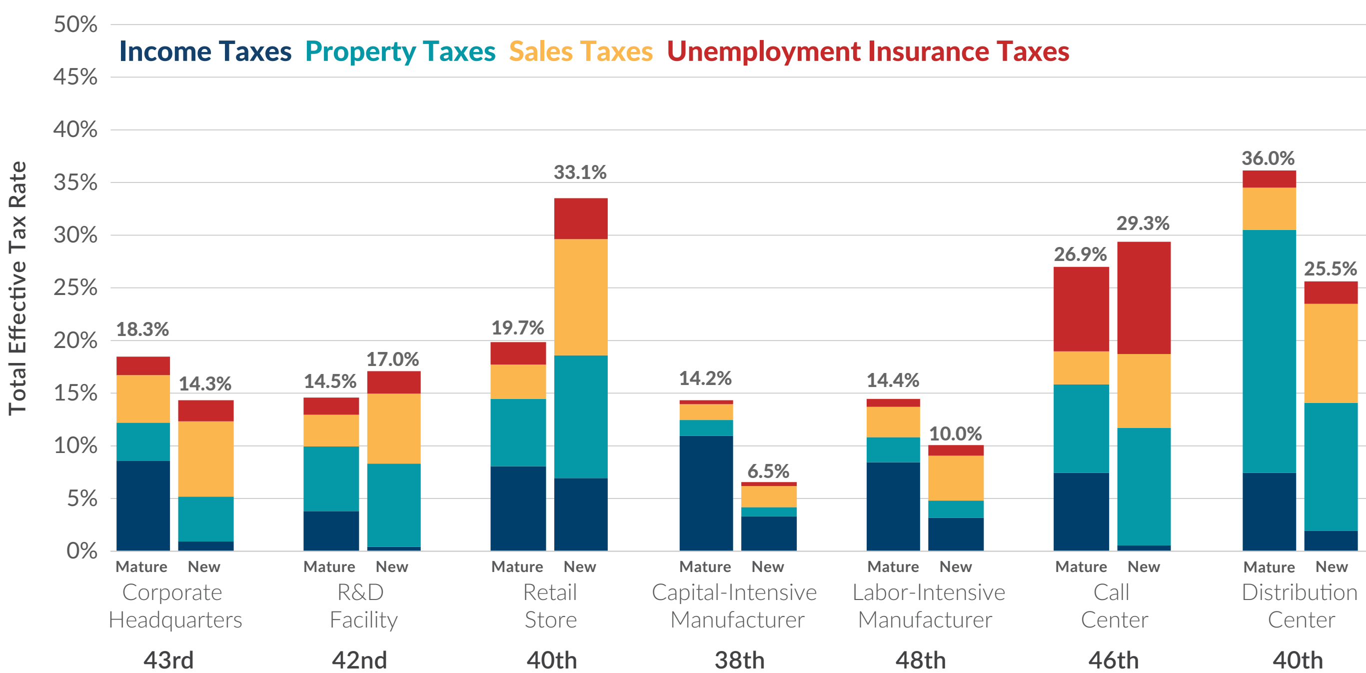
The state's throwback rule also works to the detriment of research and development (R&D) facilities, with the mature firm facing a 14.5 percent effective tax rate, which is high for that firm type and ranks 42nd nationwide. These rules effectively expose 100 percent of the firm's income to in-state taxation.

Top Tax Rates

Corporate Income	9.5%*
Individual Income	5.0%†
State Sales	6.25%
Avg. Local Sales	1.93%

* Illinois' corporate income tax declined to 7.75 percent in 2015 as a 2011 temporary tax increase was allowed to partially sunset.

† The individual income tax decline to 3.75 percent in 2015 as part of the partial sunset of the 2011 tax increases. The rate is applied to federal adjusted gross income with modification.



Indiana

Since this study's April 1, 2014 snapshot date, Indiana's corporate income tax has declined to 6.5 percent as part of ongoing tax reform efforts, which would result in a decrease in overall tax burdens experienced by these firms. Due to the effects of this ongoing reform already captured in the study, Indiana has improved for most firm types since our first edition.

The state continues to rank poorly for manufacturing operations, but recent tax changes have the potential to drive improvements in future rankings. Since the snapshot date, Indiana repealed a throwback rule that hinders these firms' rankings. These firms also experience one of the nation's highest property tax burdens for manufacturing firms due to high rates and the property tax on equipment. As Indiana's corporate tax rate continues to fall, some improvement can be expected.

New manufacturing operations fare slightly better due to some of the most generous property tax abatements in the country, but still experience above-average overall tax burdens. Manufacturing machinery is exempt from the sales tax. The business personal property tax on equipment also hinders distribution centers; the state's mature distribution center ranks 45th in the nation.

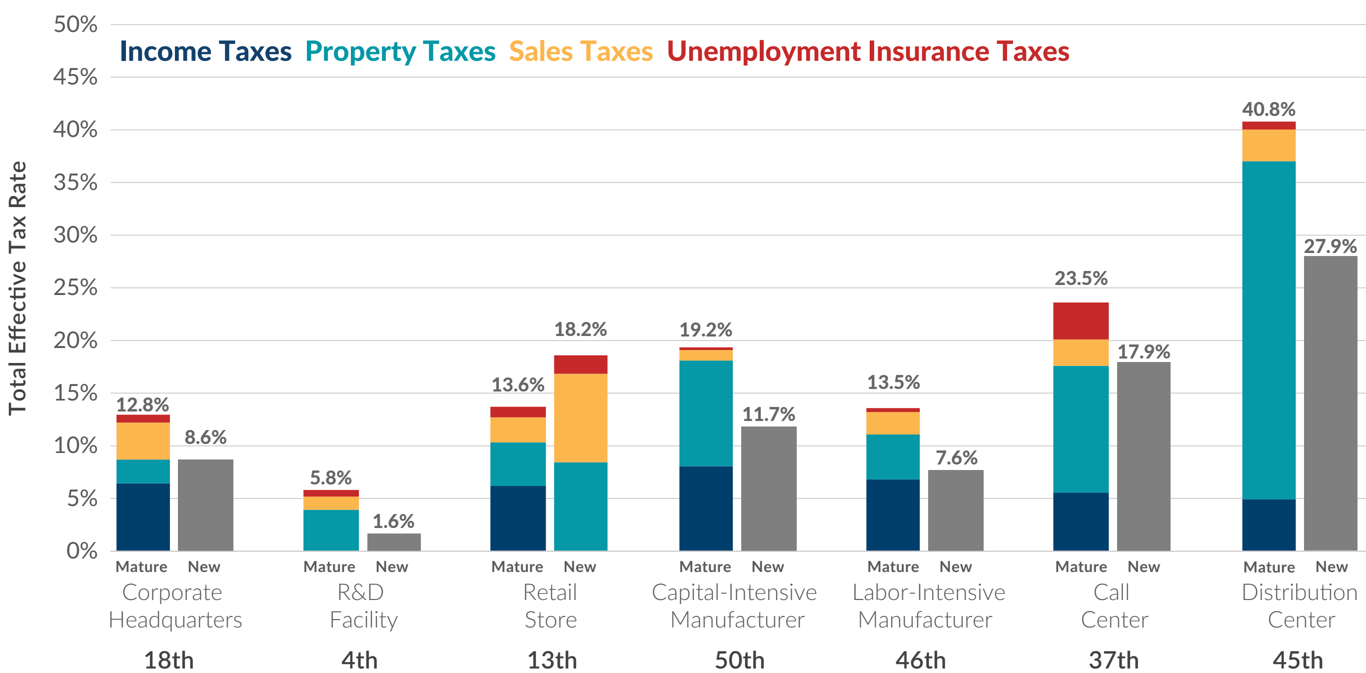
Indiana is one of only five states to offer retail operations a property tax abatement and one of only two states offering retailers an investment tax credit. Indiana ranks 4th for mature research and development (R&D) operations and imposes a similarly low tax burden on new operations, in both cases largely driven by R&D tax credits, which are among the most generous in the nation for both new and mature firms. Our model firms experience a broad range of effective tax rates in Indiana, ranging from 1.6 percent for the new R&D facility to 40.8 percent for the mature distribution center.

Top Tax Rates

Top Tax Rates	
Corporate Income	7.5%*
Individual Income	3.4%†
State Sales	7.0%
Avg. Local Sales	—

* The corporate income tax rate decreased to 6.5 percent in 2015 and will continue to decrease to 4.9 percent by 2022.

† Indiana's individual income tax is assessed on federal adjusted gross income with modification.



Grey bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Iowa

Despite having the highest top corporate income tax rate in the nation at 12.0 percent, Iowa's mature capital-intensive manufacturing firm experiences the lowest effective tax burden in the nation at 3.9 percent, due in large part to Iowa's single sales factor apportionment formula and the lack of a throwback rule, which have the effect of exempting nearly all of a firm's income from in-state taxation. The operation also experiences a relatively low property tax burden due to the lack of property taxes on equipment and inventory.

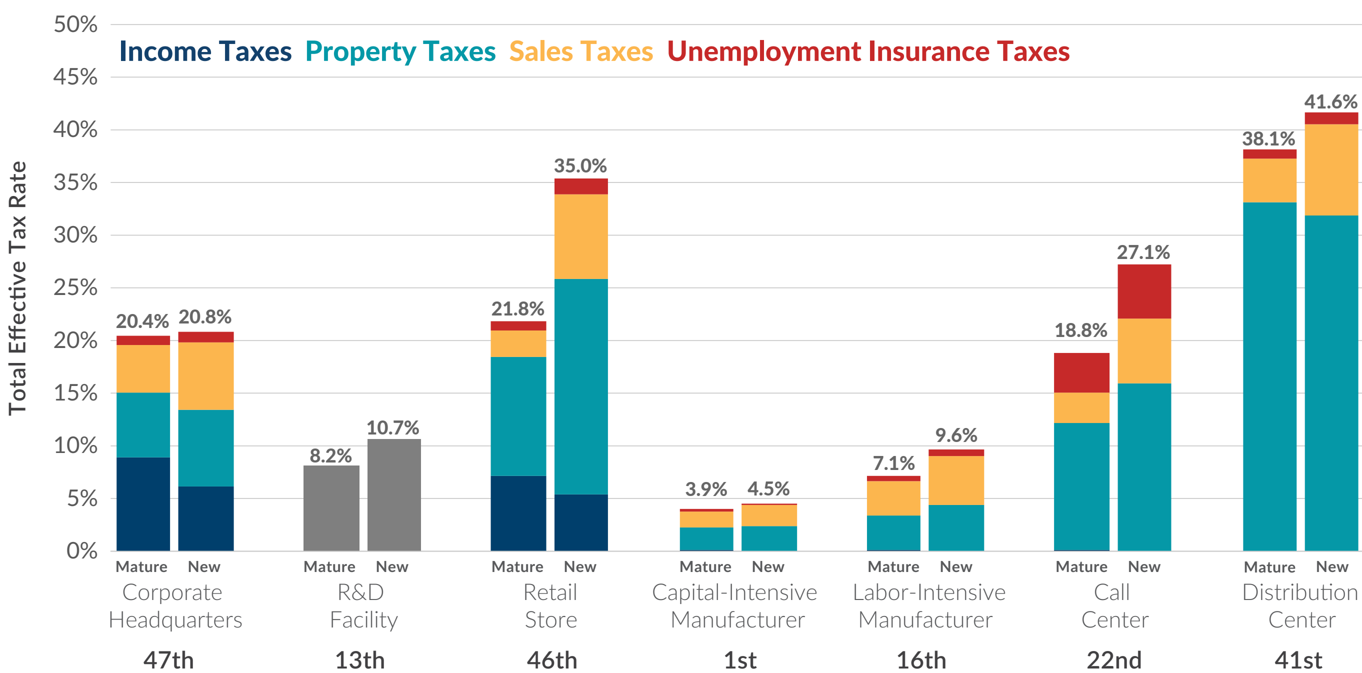
Iowa offers a 50 percent deduction for federal income taxes paid, which helps mitigate the burden of the state's high corporate and individual income taxes but is also responsible for those high rates.

In addition to its favorable apportionment factors for businesses selling goods out of state, Iowa's benefits-based sourcing rules work to the advantage of Iowa-based firms selling services out of state. However, effective property tax rates can be exceedingly high for some firms—nearly double the national average for mature distribution centers, for instance—greatly increasing overall tax costs. Qualifying new firms (the manufacturing operations and the distribution center) receive a full abatement of the property tax on improvements for three years, though the abatement does not cover taxes on the value of the land itself.

Manufacturing machinery and research and development (R&D) equipment are exempt from the state sales tax, and the R&D facility receives other incentives as well. Iowa also offers generous investment and job creation tax incentives to new firms, though due to the state's high tax rates, most new firms continue to experience above-average tax burdens.

Top Tax Rates

Corporate Income	12.0%
Individual Income	8.98%
State Sales	6.0%
Avg. Local Sales	0.78%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Kansas

Kansas' effective rates for many firm types improved substantially since our first edition due to the expansion of the Promoting Employment Across Kansas (PEAK) program, which allows qualifying companies to retain 95 percent of the payroll tax of PEAK-eligible employees. Such generous incentives, however, keep tax costs for mature firms higher than they would be if the tax burden was distributed more equitably.

Notably, these improvements are not due to other recent revisions in the Kansas tax code, which do not affect the firm profiles we consider in this study.

Whereas in 2011, all seven firm types (in both their new and mature iterations) had total tax costs above the national average, Kansas now offers very low tax costs for new capital- and labor-intensive manufacturing operations and new corporate headquarters, though the state continues to rank below average for all mature firm types except corporate headquarters, which rank 25th with a 13.7 percent effective tax rate.

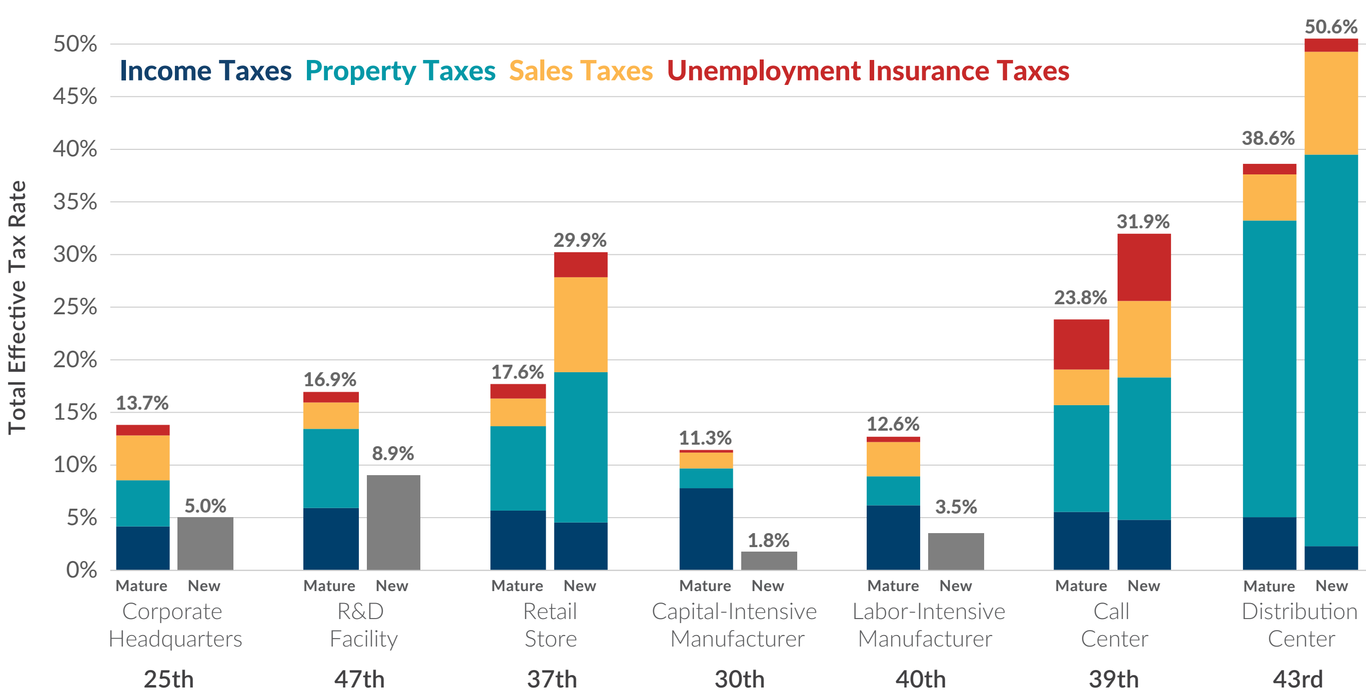
The new distribution center has an effective tax rate of 50.6 percent, nearly 60 percent above the median rate nationally. This is the result of average corporate income and unemployment insurance taxes combined with some of the highest sales and property taxes in the nation for firms of this type. The state has evenly-weighted three-factor apportionment, sources all service income in-state, and imposes a throwback rule.

Illustrating the degree to which tax burdens can fall unequally on different firm types, the new distribution center's 50.6 percent tax rate contrasts with a 1.8 percent effective tax rate on new capital-intensive manufacturing. Meanwhile, the mature capital-intensive manufacturing firm experiences an 11.3 percent effective tax rate, over six times the burden on the new firm.

Kansas ranks 25th for mature corporate headquarters with an effective tax rate of 13.7 percent. This firm type has a fairly low income tax burden but faces an above-average sales tax burden and a high property tax burden.

Top Tax Rates

Corporate Income	7.0%
Individual Income	4.8%
State Sales	6.15%
Avg. Local Sales	2.04%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Kentucky

On the whole, Kentucky offers relatively moderate sales tax burdens, low unemployment insurance taxes, and low property taxes, which account for below-average tax burdens for most firm types. However, the state ranks 33rd for mature research and development (R&D) operations. Because Kentucky does not offer an R&D tax credit as many other states do, the R&D operation has the third highest income tax burden in this category.

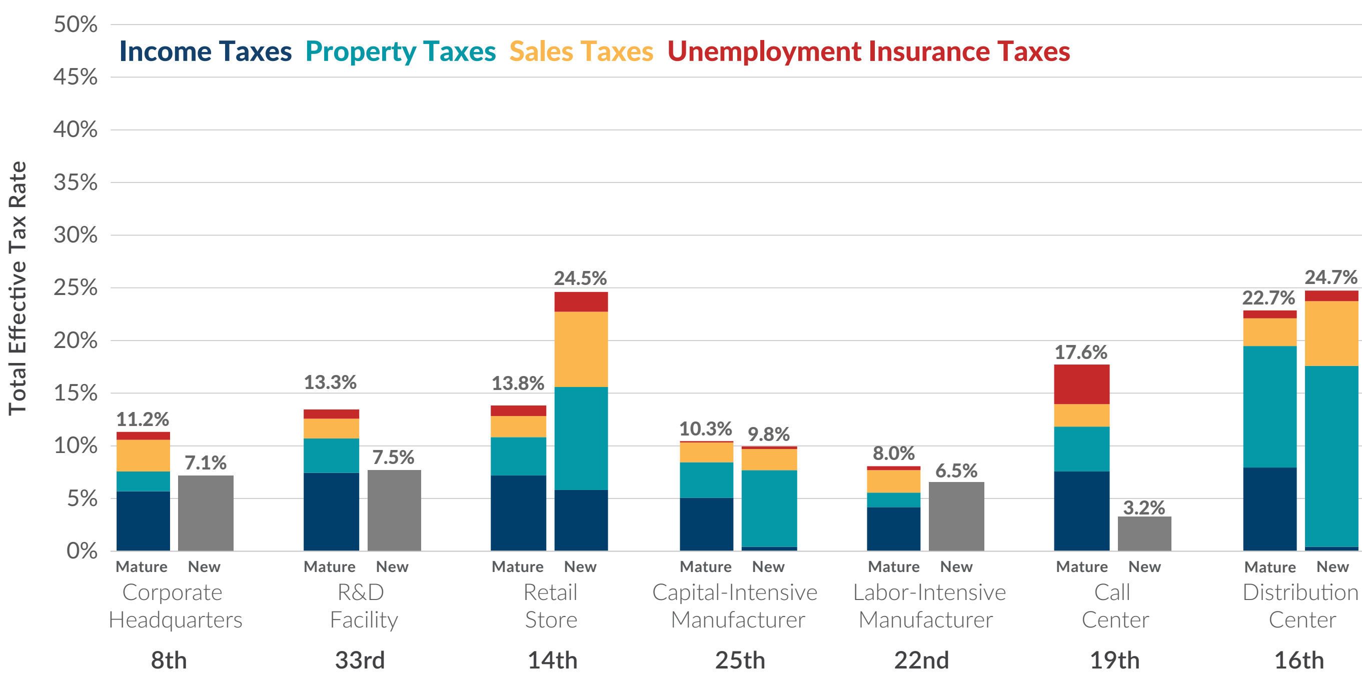
Both capital- and labor-intensive manufacturing firms are penalized by Kentucky's extension of the property tax to equipment and inventory. Kentucky is one of only nine states to tax inventory. Manufacturing machinery, meanwhile, is exempted from the sales tax for new or expanding facilities, but not for mature operations.

The state's double-weighted sales apportionment factor and income-producing activity sourcing rules also work against operations with sales largely or entirely out-of-state.

Kentucky offers a particularly low tax burden for the new call center, with an effective tax rate of 3.2 percent. This operation is helped by one of the most generous withholding tax rebates in the country, a moderate unemployment insurance tax burden, and low sales and property tax burdens despite the fact that the state levies property taxes on equipment and inventory in addition to land and buildings.

Top Tax Rates

Tax	Rate
Corporate Income	6.0%
Individual Income	6.0%
State Sales	6.0%
Avg. Local Sales	—



Grey bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Louisiana

Louisiana's tax structure is characterized by high rates and partially offsetting incentives, particularly for new, but in some cases also for mature, firms.

Louisiana offers the lowest overall tax burden in the country to three new operations, due less to its overall tax structure than to unusually generous incentives programs. New capital- and labor-intensive manufacturing firms experience effective tax rates at or under 0.1 percent due to some of the most generous property tax incentives and withholding tax incentives in the nation.

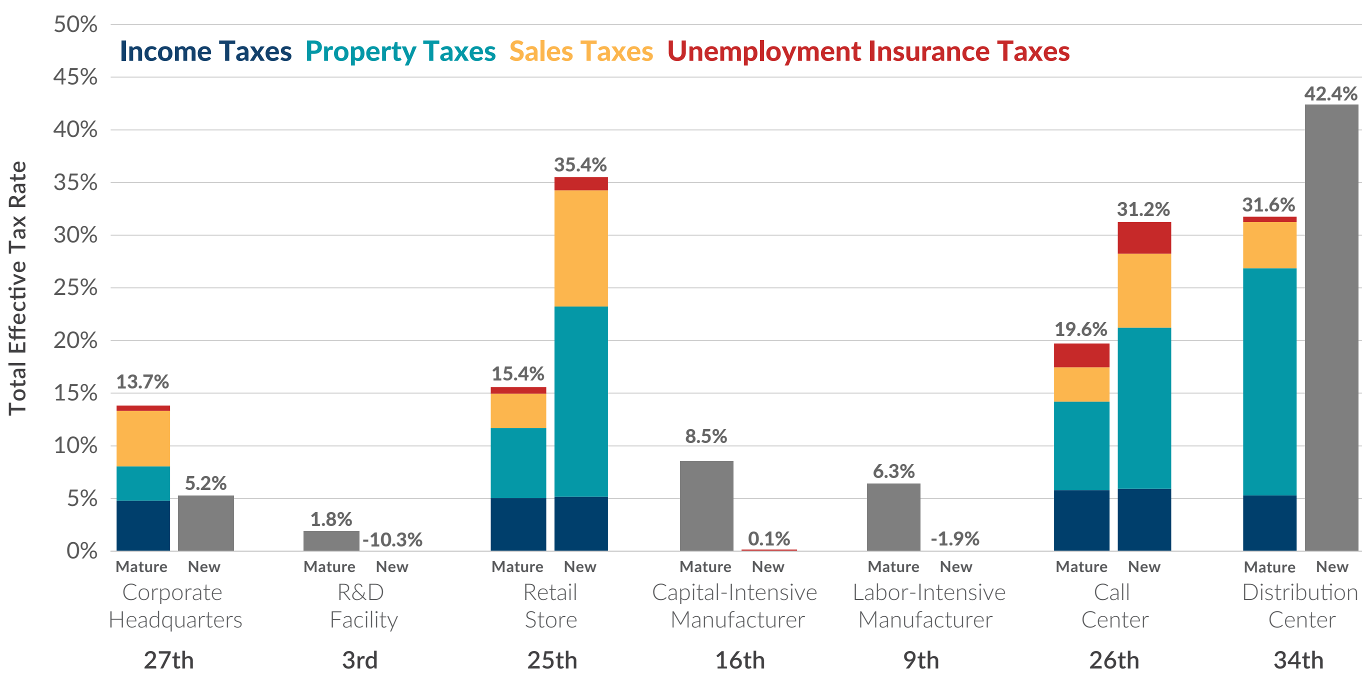
Louisiana provides the largest withholding tax rebate of the fifteen states offering such incentives, yielding a low 5.2 percent effective tax rate for new corporate headquarters. The state employs double-weighted sales factor apportionment with no throwback rule, and sources service income where the income-producing activity takes place. It also extends its property tax to equipment and inventory in addition to land and buildings.

The state is tied with Utah for the second-most generous research and development (R&D) tax credit, reducing the effective tax rate for the new R&D center to -10.3 percent, meaning that such businesses actually receive a substantial tax subsidy. Mature operations enjoy an effective tax rate of 1.8 percent, 85 percent below the median rate nationally. At the other end of the spectrum, the mature distribution center is saddled with an effective tax rate of 42.4 percent. The mature capital-intensive manufacturing operation's tax burden is 85 times that of its new counterpart.

Despite the state's 8.0 percent statutory corporate income tax rate, both mature manufacturing operations enjoy the lowest income tax burden in their categories thanks to the state's favorable apportionment formula, along with the second lowest unemployment insurance tax burden in the country for their firm types. However, each firm type also faces among the highest sales and property tax burdens in the country, the latter due in large measure to the state's high taxes on equipment. Non-neutrality—across firms, maturity, and tax types—proves a central feature of the Louisiana tax code.

Top Tax Rates

Corporate Income	8.0%
Individual Income	6.0%
State Sales	4.0%
Avg. Local Sales	4.91%



Grey bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Maine

Maine's corporate income tax rate is high, but the state employs sourcing rules that tax service income where the benefits are received, ameliorating the rate's impact for firms that sell services out of state. The state also uses single sales factor apportionment.

Maine ranks 9th for mature call center operations. The firm benefits from the state's relatively low 5.5 percent sales tax and an apportionment formula that gives it the third lowest income tax costs for this type of firm. The same factors help the state rank 9th for the mature research and development (R&D) operation. This operation has an effective tax rate of 7.8 percent, which is 35 percent below the median rate nationwide.

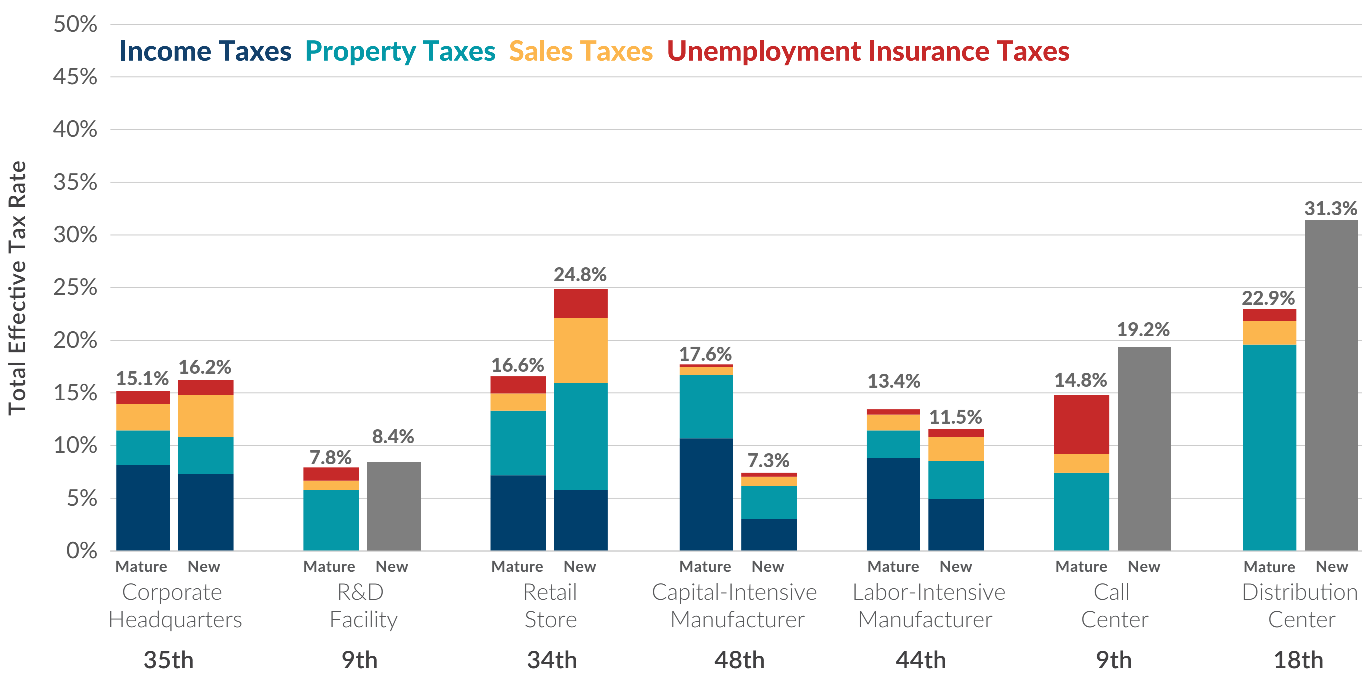
Maine includes equipment in its property tax base, which contributes to an above-average property tax burden for mature capital-intensive manufacturing firms, which experience an effective tax rate of 17.6 percent, two-thirds higher than the median tax rate on this firm type. The state's 8.93 percent income tax and throwback rule are also substantial contributors to this firm's high tax burden. Similar factors give the state a 44th place ranking for mature labor-intensive manufacturing firms, which experience the second highest corporate income tax burden for the firm type.

New firms in Maine benefit from a ten percent credit on investment up to $3.5 million over seven years. The state also offers fairly generous R&D credits.

Finally, the new retail store in Maine experiences a relatively modest overall tax burden. Despite facing a high corporate income tax rate, this establishment is helped by a property tax abatement that gives it one of the lower property tax burdens for this firm type. It also has one of the lower sales tax burdens for new retail establishments.

Top Tax Rates

Corporate Income	8.93%
Individual Income	7.95%
State Sales	5.5%
Avg. Local Sales	—



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Maryland

By largely foregoing job creation and investment credits, Maryland is among a small number of states actually offering lower effective rates for mature, rather than new, firms. These mature firms are helped by the lack of a throwback rule and benefits sourcing. Furthermore, although the state generally employs a double-weighted sales factor apportionment formula, it offers single sales factor apportionment to manufacturing operations.

The state offers a modest job creation credit but few other incentives for new firms. More importantly, however, Maryland's tax structure falls disproportionately on activities and investments associated with new firms. For instance, Maryland imposes the highest tax burden in the nation for new capital-intensive manufacturing operations despite low income, unemployment insurance, and sales tax burdens for the firm type.

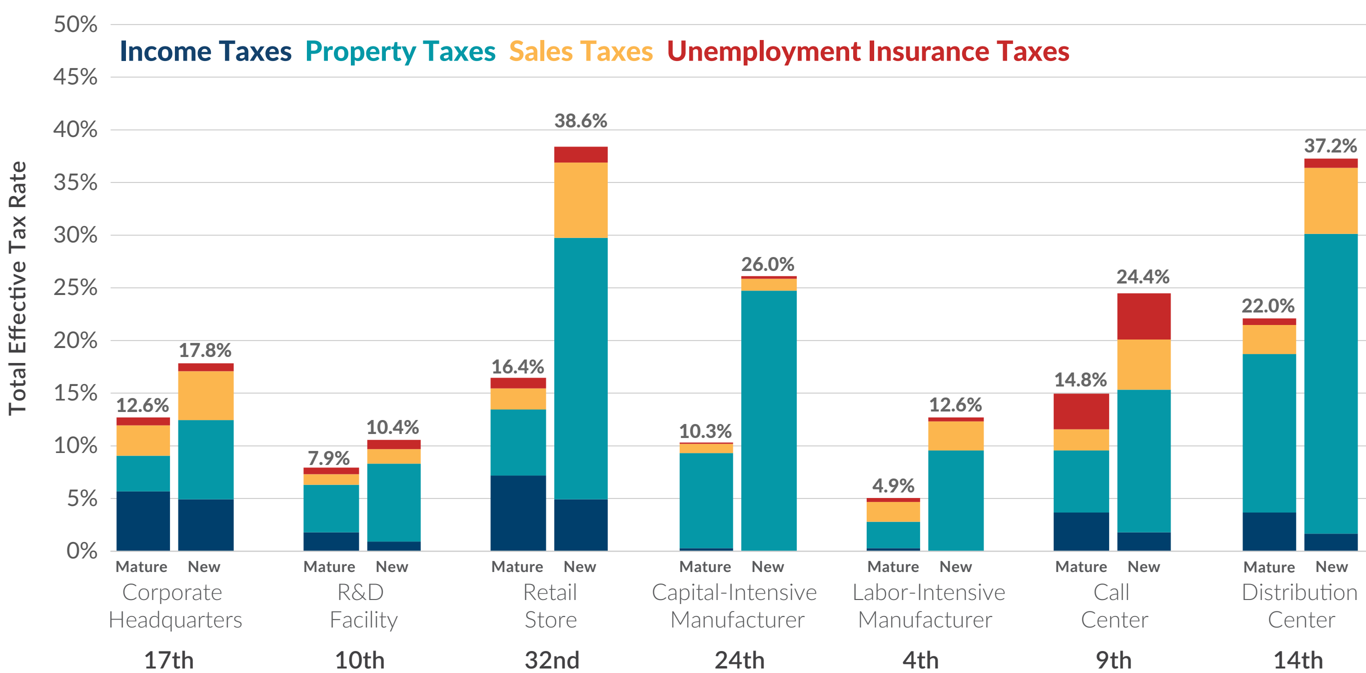
The chief factor is the highest property tax of its type in the nation—nearly four times the national average—partially attributable to the imposition of the country's third highest rate on equipment. Since newer firms tend to have a greater share of assets tied up in undepreciated equipment, this firm experiences a heavier tax burden than its mature counterpart, with an effective tax rate of 26.0 percent, compared to a median tax rate of 8.7 percent for this firm type nationwide.

Similar factors yield a high tax burden for new labor-intensive manufacturing operations. Conversely, Maryland ranks 4th for mature labor-intensive manufacturing. The firm benefits from a favorable apportionment formula—special single sales factor apportionment applies to manufacturing—which compensates for the state's high 8.25 percent corporate income tax rate. The firm also experiences moderate unemployment insurance and sales tax burdens, while the property tax rate for mature firms is more comparable to other states' rates.

The state's high property tax rate on equipment is more than twice the national average and disadvantages all of the newly established firms in the study.

Top Tax Rates

Corporate Income	8.25%
Individual Income	5.75%
State Sales	6.0%
Avg. Local Sales	—



Massachusetts

Massachusetts employs double-weighted sales factor apportionment, sources service income where the income-producing activity takes place, and employs a throwback rule, all of which combine to enhance the burden of the state's already high corporate income tax, with a top statutory rate of 8.0 percent. The one exception is for manufacturers, which are able to rely on favorable single sales factor apportionment. Other firms in our study, which sell largely out of state, are disadvantaged by the Massachusetts apportionment rules.

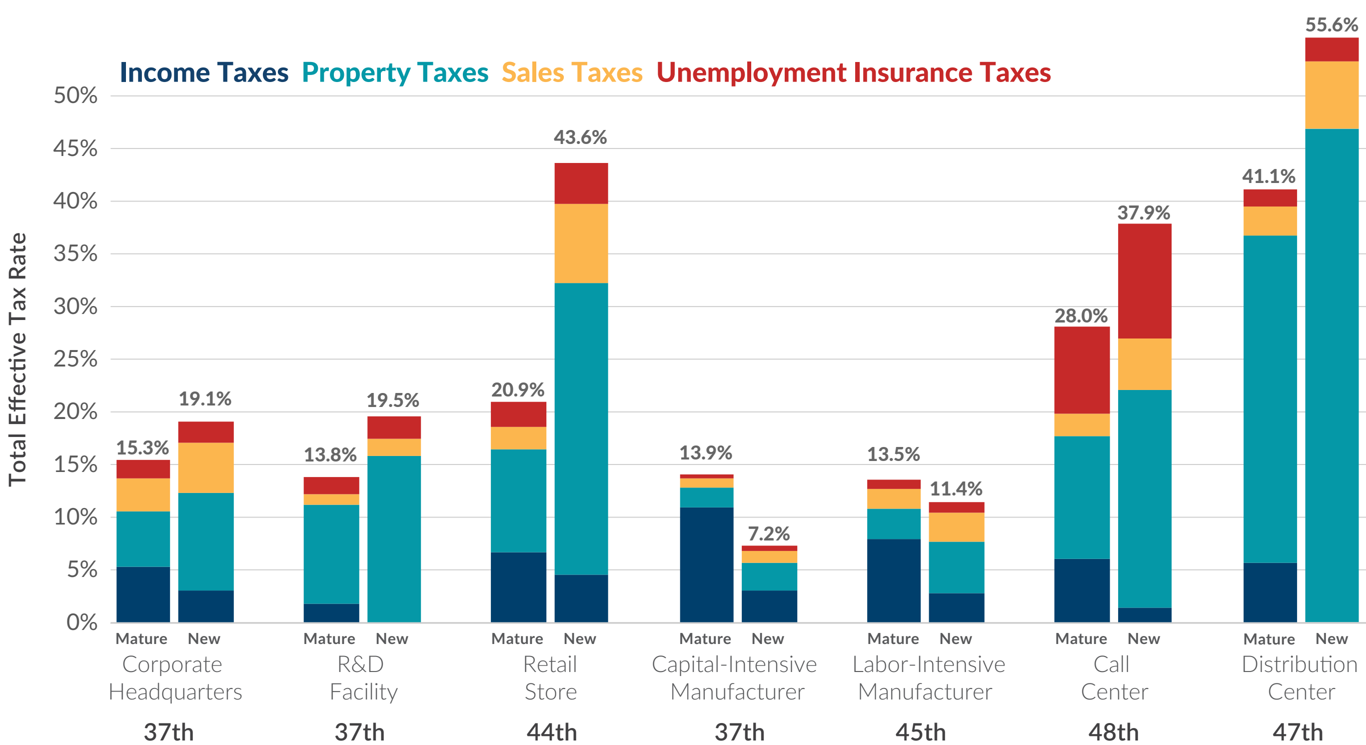
Even where tax incentives reduce or eliminate income tax liability for new firms—as they do for new distribution centers—high property tax burdens (largely due to a high tax rate on equipment) and an above-average unemployment insurance tax burden still combine to produce an effective tax rate nearly 74 percent higher than the national average.

High income and property taxes drive the state's consistently poor rankings for our model firms. Even though the state has single sales factor apportionment for manufacturers, its throwback rule subjects all of the firms' sales to the state's 8.0 percent income tax. Furthermore, the state's high property tax rates—especially on equipment—disadvantage every firm type.

The state ranks 48th for mature call centers and yields high rates for new call centers and new retail operations for similar reasons. Mature corporate headquarters rank 37th due to a below-average sales tax burden that partially mitigates the above-average burdens for income and unemployment insurance taxes and one of the nation's highest property tax burdens.

Top Tax Rates

Corporate Income	8.0%
Individual Income	5.2%
State Sales	6.25%
Avg. Local Sales	—



Michigan

Since our first edition, Michigan repealed the distortionary Michigan Business Tax and replaced it with a corporate income tax which includes fewer incentives benefitting new firms. Although this means higher tax costs for new firms, it represents a dramatic improvement of the state's overall tax structure and has helped to bring down tax costs for mature operations, making the state more attractive for businesses with long time horizons or wishing to make a substantial investment in the state.

Effective tax rates fell for five of the seven mature firms since our first edition, thanks in significant part to the repeal of the Michigan Business Tax, but not as fast as rates fell for mature operations across the nation as a whole.

The lack of a throwback rule, combined with single sales factor apportionment and benefits sourcing, yields modest corporate income tax burdens and helps drive the generally low effective tax rates for businesses with clients or sales largely out of state.

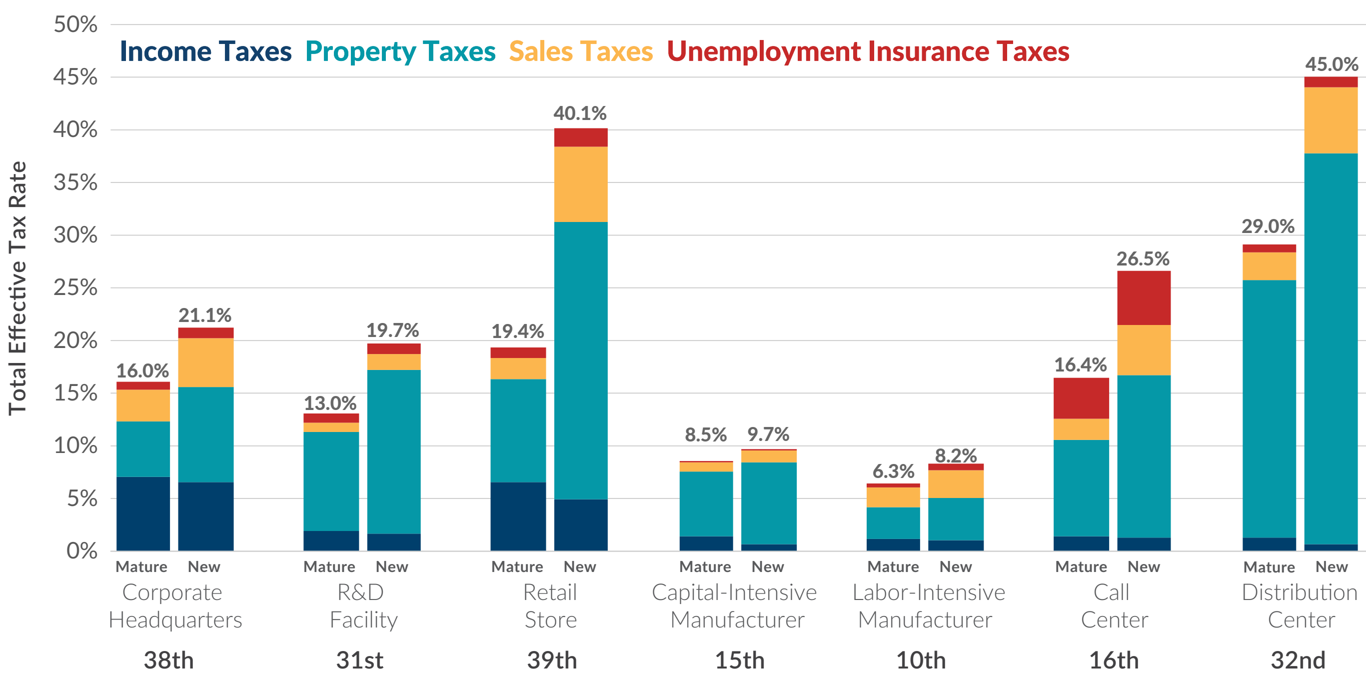
Manufacturing operations benefit from modest income, unemployment insurance, and sales tax burdens, but are dragged down somewhat by a property tax burden that places it in the top third of states, in part due to the inclusion of equipment in the sales tax base.

Michigan imposes high effective tax rates on new corporate office operations, which experience an effective tax rate of 21.1 percent, 56 percent higher than the median effective tax rate on such firms nationwide. New research and development (R&D) facilities and new distribution centers also fare poorly, all burdened by high property taxes.

Top Tax Rates

Corporate Income	6.0%
Individual Income	4.25%*
State Sales	6.0%
Avg. Local Sales	—

* The rate is applied to federal adjusted gross income with modification.



Minnesota

Minnesota's high corporate income, unemployment insurance (UI), and property tax burdens are responsible for an effective tax rate of 21.5 percent for the mature corporate headquarters, ranking 48th nationwide. The firm receives no meaningful tax incentives. Conversely, the state ranks second for mature capital-intensive manufacturing operations, which experience a low 4.0 percent effective tax rate. The burden of the state's 9.8 percent corporate income tax rate is largely avoided by this firm due to single sales factor apportionment and the lack of a throwback rule.

The state ranks 13th for mature research and development (R&D) operations with an effective tax rate of 8.2 percent. This operation benefits greatly from the favorable apportionment rules, but faces high unemployment insurance taxes and the highest property tax burden for this firm type in the nation. The state offers a modest R&D tax credit.

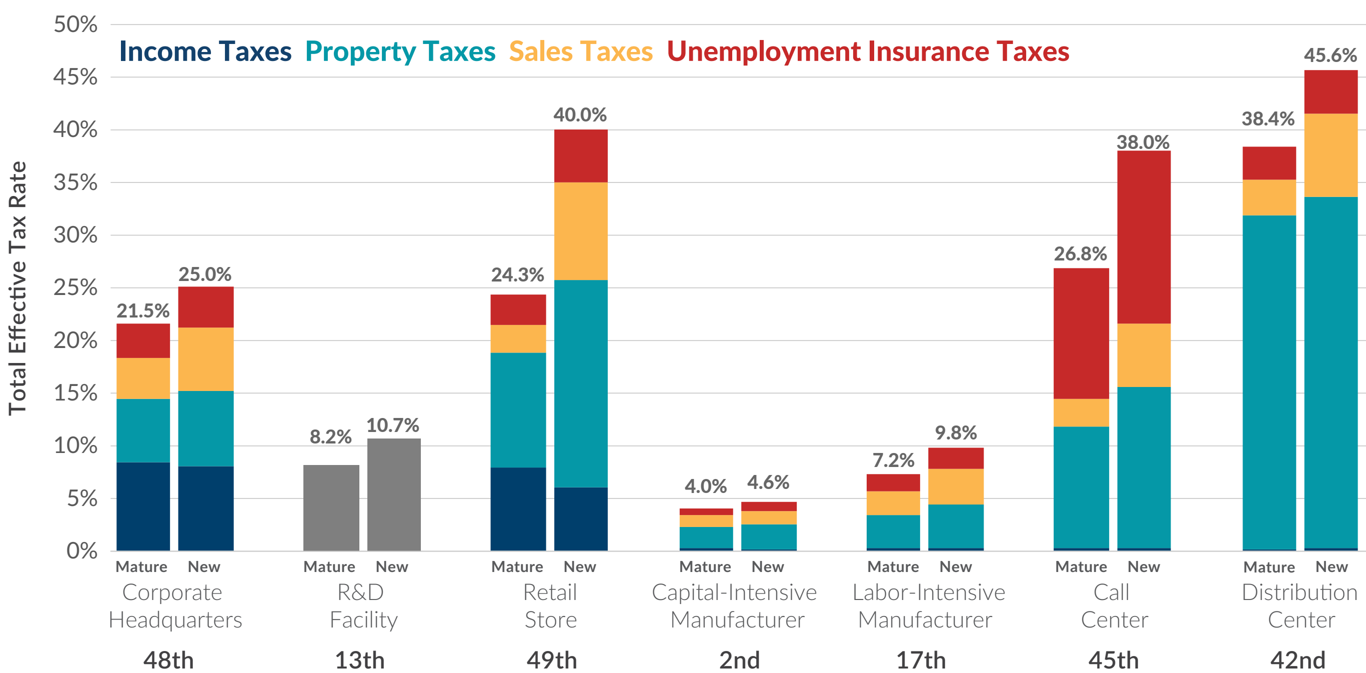
Although Minnesota's sourcing rules, which locate income where the benefit is received, are favorable to operations like call centers and result in the second lowest income tax burden in the nation for the mature operation, favorable sourcing rules cannot overcome the high unemployment insurance, sales, and property taxes experienced by this firm.

The state's UI tax burden is more than double the median for all firm types, and triple the median for the majority of firms in our study, which drives up tax costs for all firms, but particularly those—like call centers—that tend to be labor intensive.

Minnesota offers few incentives, which, combined with high unemployment insurance and property taxes, and high income taxes for firms that sell in state, yield substantially above-average tax burdens for most new operations.

Top Tax Rates

Tax	Rate
Corporate Income	9.8%
Individual Income	9.85%
State Sales	6.88%
Avg. Local Sales	0.32%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Mississippi

Despite a modest corporate income tax rate, Mississippi imposes relatively high tax costs on manufacturing operations and about-average costs on other mature firms. Rates for new firms vary widely based largely on the availability of tax incentives, which can be generous in Mississippi. The state offers job creation tax credits, withholding rebates, capital investment incentives, and research and development (R&D) incentives to qualifying firms, which can substantially reduce tax burdens for many firms.

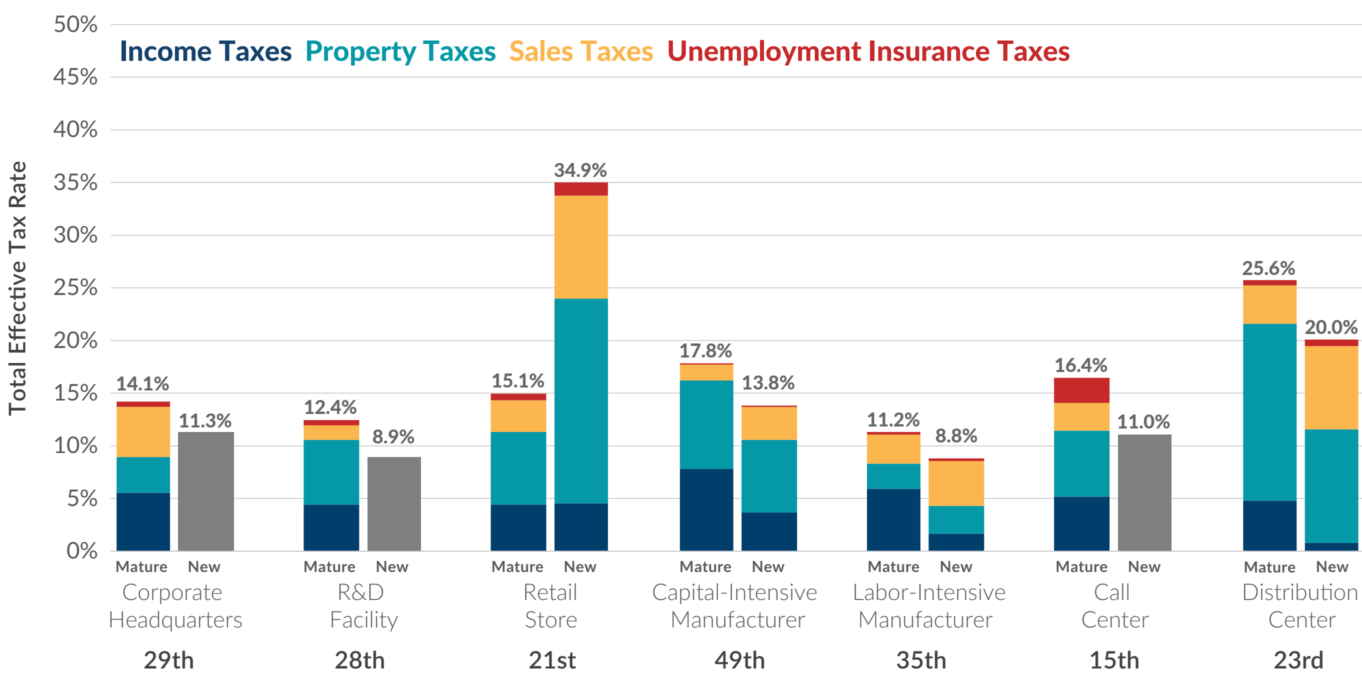
The state's property tax applies to inventory and equipment as well as buildings and land. Mississippi also imposes an antiquated capital stock tax. Working together, these factors penalize capital-intensive businesses, which is why the mature capital-intensive manufacturing operation ranks 49th nationwide with an effective tax rate of 17.8 percent.

Moreover, while most firms in Mississippi are subject to single sales factor apportionment, which benefits firms that sell goods out of state, manufacturing operations are subject to three-factor apportionment, which equally weights sales, payroll, and property, to the detriment of these operations. Few states offer different apportionment factors to distinct firm types, and when they do, they tend to offer manufacturing a more favorable formula, not a less advantageous one as Mississippi does.

The state's sourcing rules, which levy tax burdens where the income-producing activity takes place, work against service-oriented firms like the call center, and the throwback rule increases tax costs for all firms that do business in states with which they lack nexus.

Top Tax Rates

Tax	Rate
Corporate Income	5.0%
Individual Income	5.0%
State Sales	7.0%
Avg. Local Sales	0.067%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Missouri

Missouri's tax rates for new firms have declined considerably since our first edition, largely due to the Missouri Works jobs incentives program, which replaced the older Quality Jobs program.

Missouri offers firms the option of using three-factor or single sales factor apportionment; the latter generally favors firms basing their operations in state, while the former works to the advantage of the corporate headquarters and companies based elsewhere but wishing to do business in Missouri. The state does, however, impose a throwback rule which subjects to Missouri taxes all income earned in another state and not taxed by that state. This eliminates the advantage of single sales factor apportionment for the distribution center, call center, and research and development (R&D) facility.

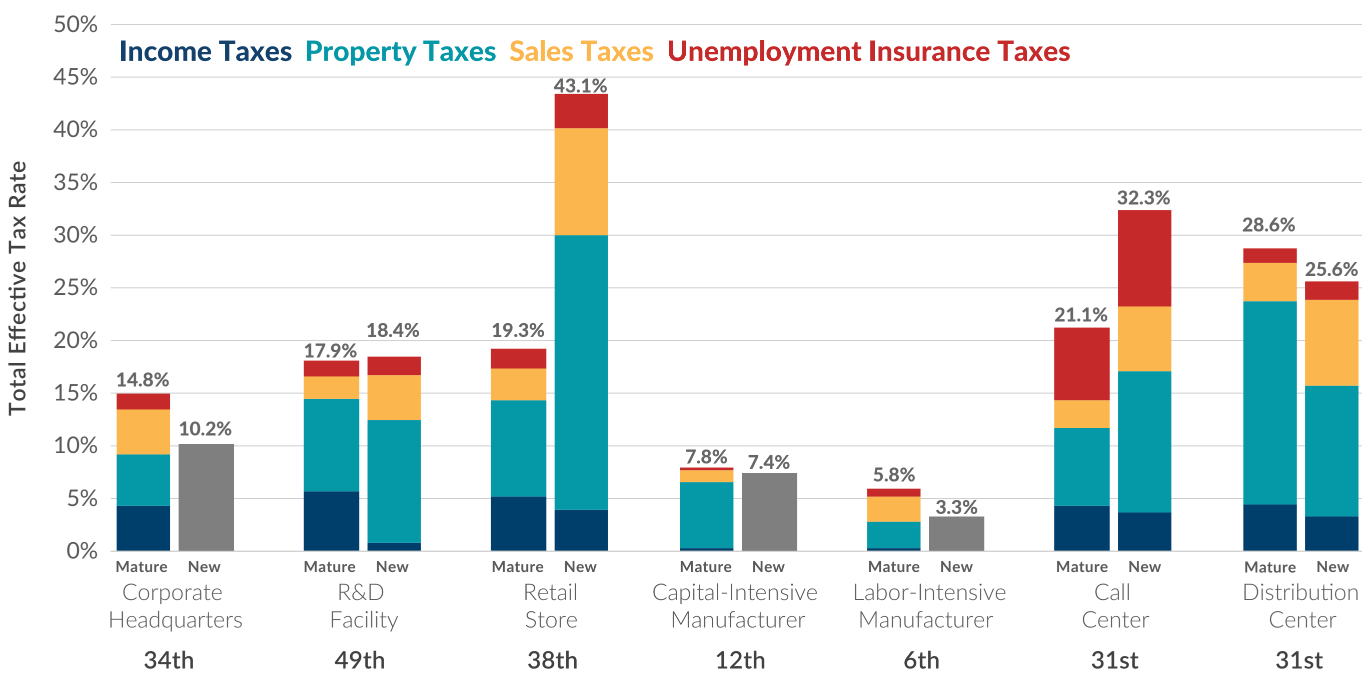
Missouri now ranks 6th for mature labor-intensive manufacturing operations and has a similarly low tax rate for new operations, representing dramatic improvements since our previous editions. These firm types benefit from low income tax burdens—driven by the fact that firms have the option of using an evenly factored apportionment formula or a single sales factor formula—and extremely generous incentives, namely the property tax abatement and jobs tax credits.

Missouri ranks 49th for mature R&D operations, which have a tax burden 49 percent above the median national rate. For this firm type, the state has the 10th highest income tax burden and seventh highest property tax burden, coupled with above-average sales and unemployment insurance tax rates.

The state exempts manufacturing machinery from the sales tax, which can lower the tax costs for capital- and labor-intensive manufacturing companies and avoids tax pyramiding.

Top Tax Rates

Top Tax Rates	
Corporate Income	6.25%
Individual Income	6.0%
State Sales	4.23%
Avg. Local Sales	3.56%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Montana

Montana ranks third for mature corporate headquarters, with an effective rate more than a third below the median nationwide. The lack of a state sales tax is one of the contributing factors in this ranking. The operation also has a modest income tax burden due to the state's three-factor apportionment formula.

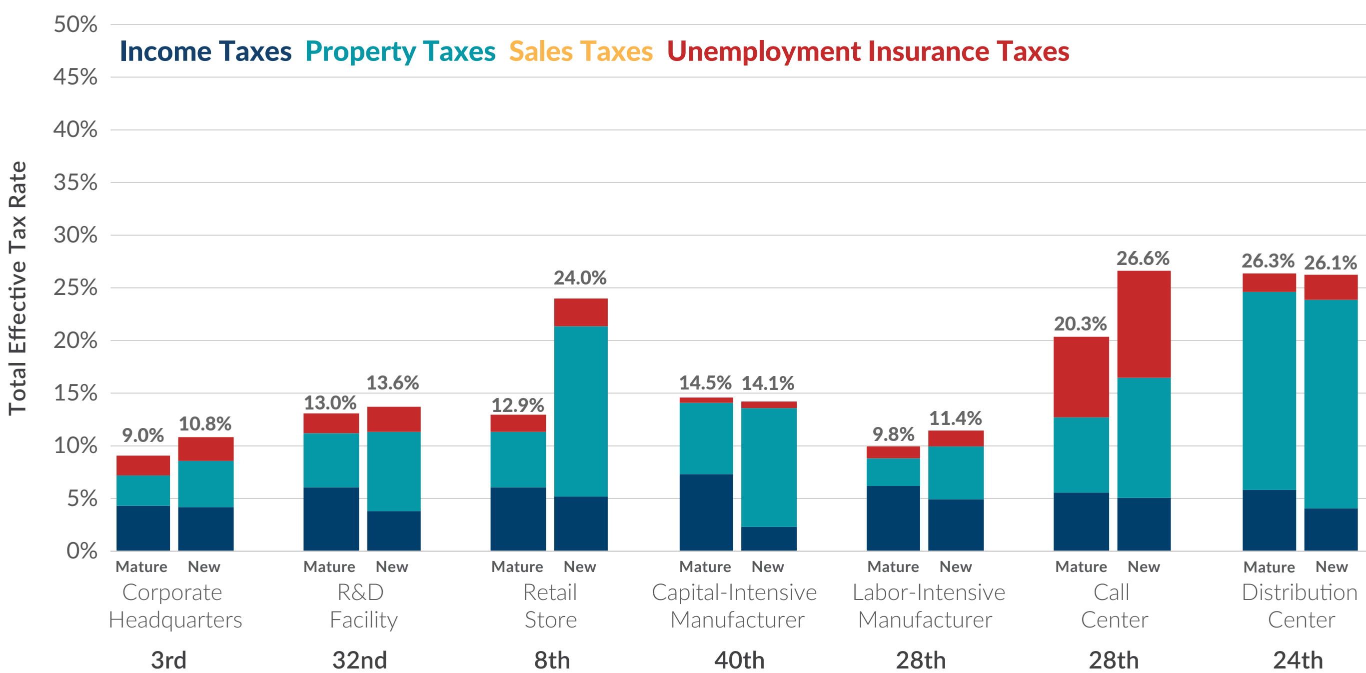
Conversely, three-factor apportionment works to the detriment of manufacturing operations. Montana ranks 40th for both new and mature capital-intensive manufacturing, with effective tax rates of 14.1 and 14.5 percent respectively. These firm types bear one of the ten heaviest tax burdens in the county in all major tax categories—income, unemployment insurance, and property—except the sales tax.

The lack of a sales tax benefits all firms, and reduces the cost of purchasing equipment and machinery. Montana does, however, extend its property tax to equipment, though new firms receive a generous property tax abatement.

The state's sourcing rules for services expose all call center income to Montana taxes. A high unemployment tax burden on these firms also drives up the effective tax rate. Despite a generous incentive for new research and development (R&D) facilities, this firm still experiences an above-average tax liability for its firm type, since the R&D credits are not refundable, and the firm experiences high unemployment insurance taxes.

Top Tax Rates

Corporate Income	6.75%
Individual Income	6.9%
State Sales	—
Avg. Local Sales	—



Nebraska

Nebraska actually offers a negative effective tax burden—subsidies through the tax code—to new corporate headquarters and both new and mature research and development (R&D) facilities. These facilities benefit from favorable apportionment and sourcing rules and the refundable nature of R&D tax credits that more than offset the state's relatively high 7.81 percent corporate tax rate.

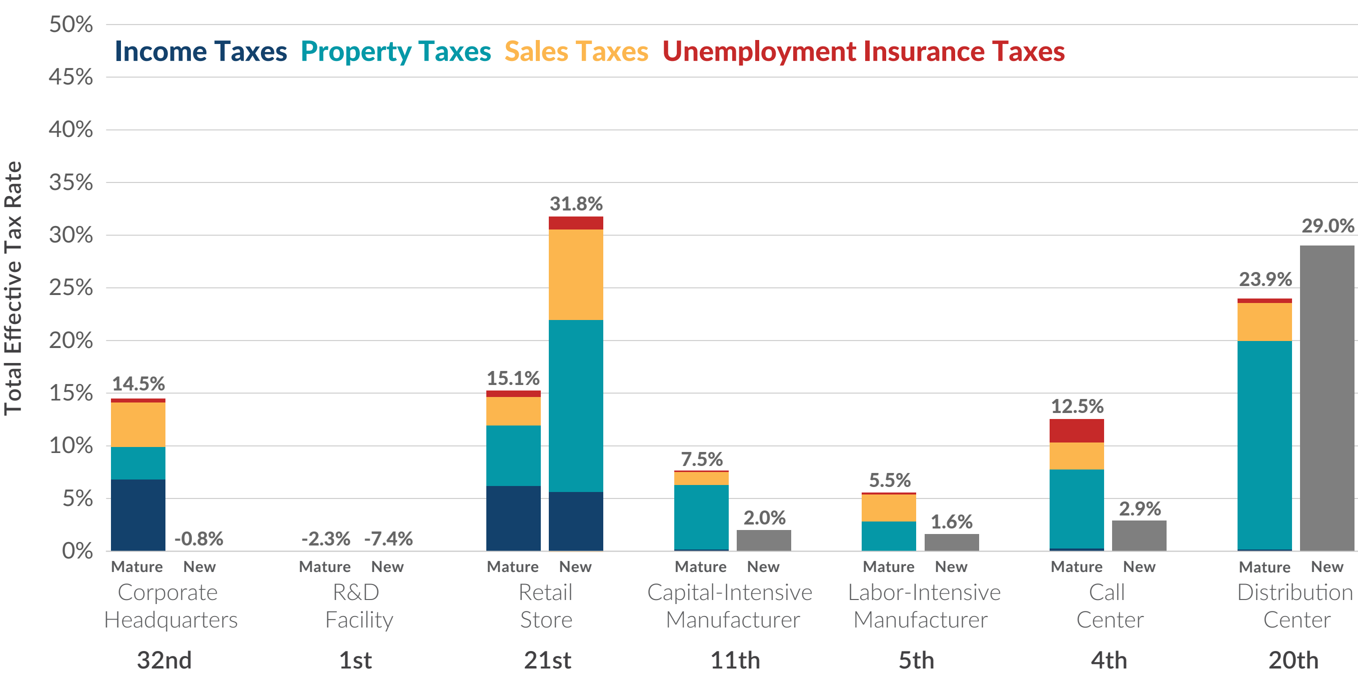
The state's tax code yields large deviations from tax neutrality both across firm types and maturity. The mature corporate headquarters pays an effective tax rate of 14.5 percent, while a new firm experiences negative tax liability of -0.8 percent. Because of the state's sourcing rules for services, 100 percent of the firm's profits is subject to the state's corporate income tax. Thus, the mature operation is subject to the one of the higher corporate income tax burdens in the nation. The state's new and mature R&D firms do well due to credits and abatements, even though R&D equipment is subject to the state's sales tax.

The state's apportionment system is also a reason for Nebraska's 5th place ranking for mature labor-intensive manufacturing. This operation has an effective tax rate 43 percent below the median even though it has an above-average property tax liability due to property taxes on inventory. Retail stores and distribution centers, however, are uniquely burdened by Nebraska's property tax on inventories.

New call centers and labor- and capital-intensive manufacturing operations all experience extremely light tax burdens. Tax incentives are the major contributing factor to the strong showing for all of these firm types. For example, the call center benefits from some of the most generous investment tax credits and jobs tax credits in the nation. Only three states offer a more generous investment tax credit for capital-intensive manufacturers. The property tax abatement for manufacturers is also quite substantial.

Top Tax Rates

Tax	Rate
Corporate Income	7.81%
Individual Income	6.84%
State Sales	5.5%
Avg. Local Sales	1.29%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Nevada

Nevada's decision to forego a corporate income tax is highly beneficial to many of the firms in our study, as are generally low property taxes. The state does, however, impose a modest payroll tax and added a gross receipts tax after our study's April 1, 2014 snapshot date.

Nevada ranks third overall for the mature retail operation, with a total tax burden more than 30 percent below the median. Nevada's lack of a corporate income tax and low property tax burden are the key factors in this ranking. However, the state does have the sixth highest unemployment insurance tax burden for this firm type.

Similarly, the absence of an income tax and low property taxes are instrumental in the state's 9th place ranking for mature distribution centers and 6th place rank for mature corporate headquarters, though here too, these operations are also burdened with very high unemployment insurance taxes.

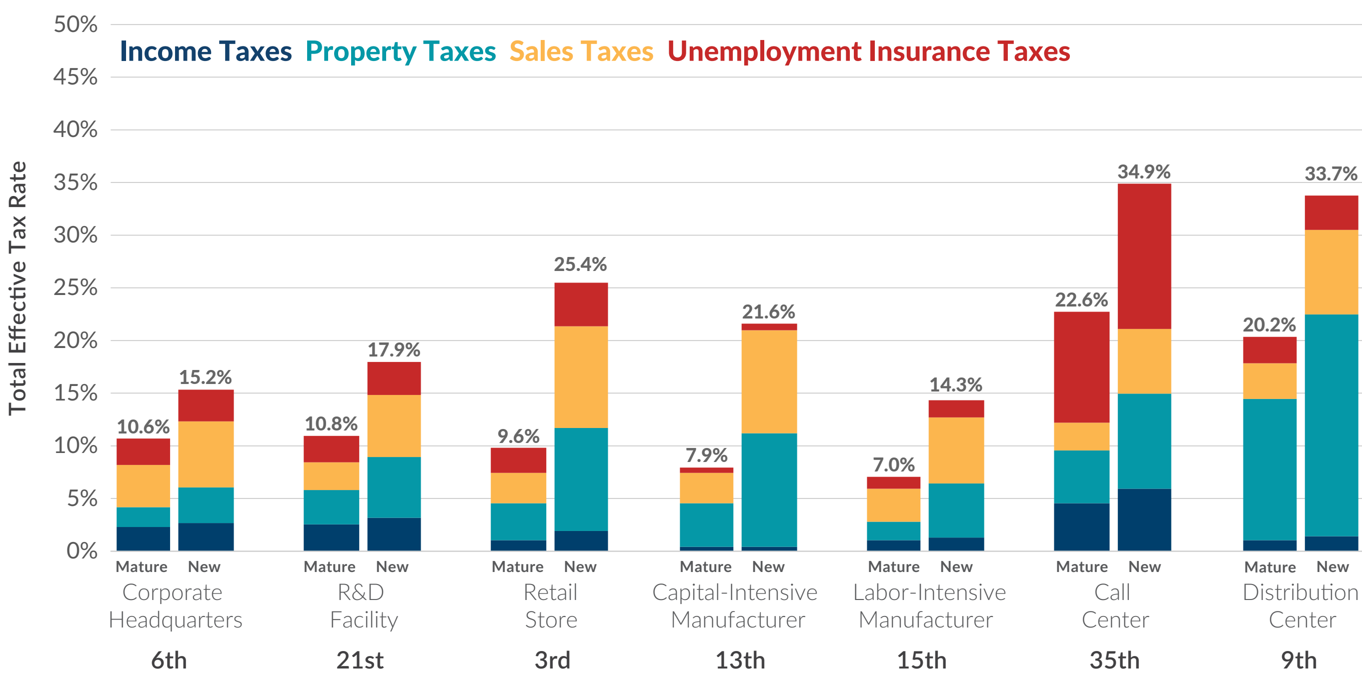
Nevada ranks 13th for mature capital-intensive manufacturing operations and 15th for mature labor-intensive manufacturing operations, hampered chiefly by the fact that its high sales tax rate applies to manufacturing equipment.

An absence of incentives—particularly property tax abatements—contributes to a comparatively high effective tax rate for new capital- and labor-intensive manufacturing operations, but keeps tax costs low for mature firms. Even without the incentives most states provide new firms, the new manufacturing operations experience a low income tax burden. However, these operations are burdened by some of the highest unemployment insurance taxes, sales taxes, and property taxes on firms of this type in the country, especially with regard to the property tax on equipment.

Since the snapshot date of this study, Nevada has increased the rate of its payroll tax and adopted a gross receipts tax with distinct rates on twenty-six business categories. Gross receipts taxes lead to pyramiding and are decidedly non-neutral across firms.

Top Tax Rates

Top Tax Rates	
Corporate Income	—
Individual Income	—
State Sales	6.85%
Avg. Local Sales	1.09%



New Hampshire

New Hampshire has a high 8.5 percent corporate income tax, though its individual income tax is only levied on interest and dividend income. The state uses double-weighted sales factor apportionment with a throwback rule.

New Hampshire offers a favorable environment for corporate headquarters, which benefit greatly from the absence of a state sales tax. This firm type still has above-average corporate income, unemployment insurance (UI), and property tax burdens.

The state's sourcing rules expose all income generated from in-state activity to New Hampshire taxes, which yields sub-par rankings for most of the mature firms in our study. In particular, sourcing rules help drive the 40th place ranking for the mature call center. The firm has one of the higher income tax burdens for its type due to the state's high corporate tax rate and unfavorable sourcing rules.

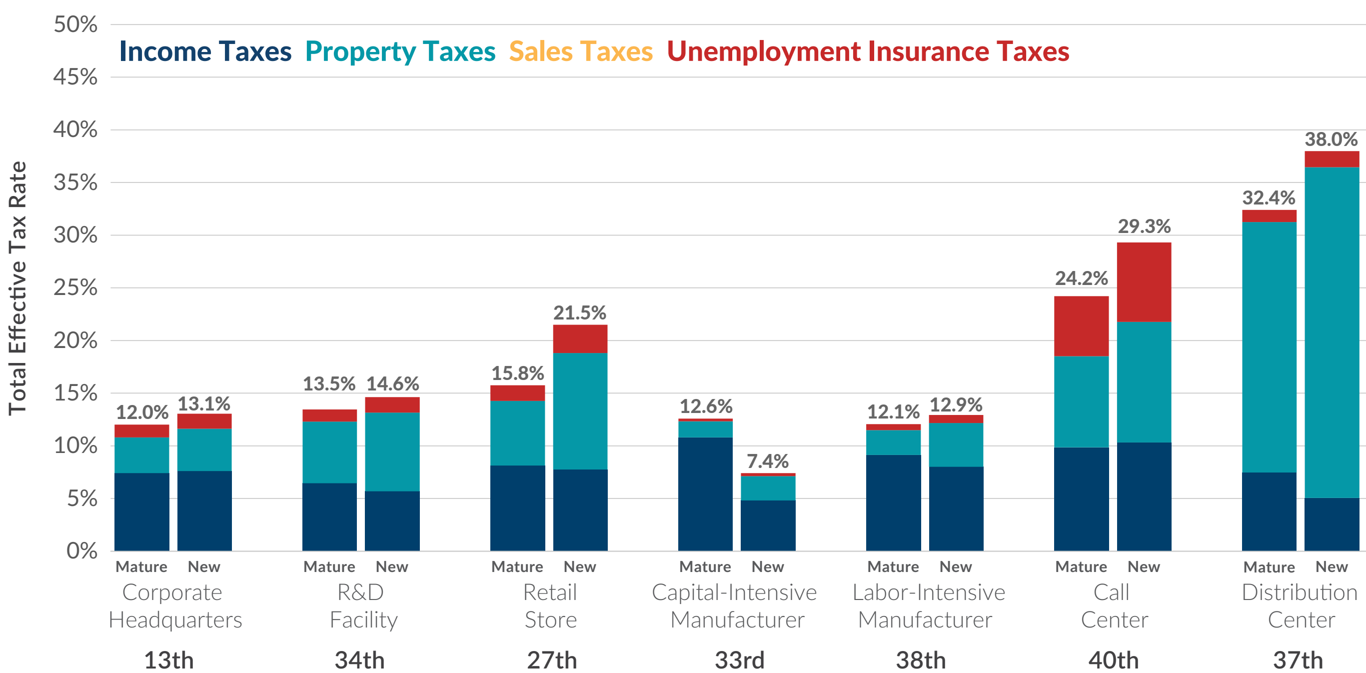
The absence of a state sales tax and moderate property tax burdens benefit retail stores, though it must be noted that the alleviated sales tax burden is on business inputs; our study does not treat sales taxes collected by retailers on their consumer sales as part of the firm's effective tax rate, even though economically speaking, some or all of this tax cost may be borne by the retailer. Furthermore, these firms do experience above-average income and UI tax burdens.

The same factors are at work for the state's new capital-intensive manufacturing operation. Here, the absence of a sales tax, a low property tax burden, and slightly above-average unemployment insurance tax burden are combined with the highest corporate income tax burden in the nation for this firm type due to the state's high tax rate and throwback rule. This results in New Hampshire ranking 22nd for the new capital-intensive manufacturing operation.

Top Tax Rates

Top Tax Rates	
Corporate Income	8.5%
Individual Income	5.0%*
State Sales	—
Avg. Local Sales	—

* New Hampshire's individual income tax only applies to interest and dividend income.



New Jersey

New Jersey ranks 50th for mature call and distribution centers, and 40th or worse on five of the seven mature firm types. At the same time, most of its new firms experience low effective tax burdens due to extremely generous jobs credits. Mature firms shoulder the costs associated with these substantial tax breaks for new operations, and face unfavorable service sourcing rules.

Most notably, an extremely generous new jobs credit yields a strongly negative tax burden of -53.5 percent—that is, a substantial subsidy—for new call centers, while the state's high taxes lead to a 35.4 percent effective tax rate on mature call centers. This represents both the lowest tax rate for new call centers and the highest tax rate for mature call centers in the nation.

New Jersey is the only state in our study where a newly-established firm (call centers) experiences the lowest effective tax rate in the nation for its firm type, while the mature form of the same firm experiences the highest effective tax rate for its type. A $5,000 per hire job credit cuts deeply into the tax burdens of new corporate headquarters and research and development (R&D) facilities as well.

The state's last-place ranking for mature call centers is predicated on its 35.4 percent tax burden, over 82 percent above the median rate nationwide. The key factors contributing to this high tax burden are the state's 9.0 percent corporate income tax rate (which contains a recapture provision subjecting all income from large firms to the top marginal rate), the high wage limit for unemployment insurance taxes, and high property tax rates on land and buildings.

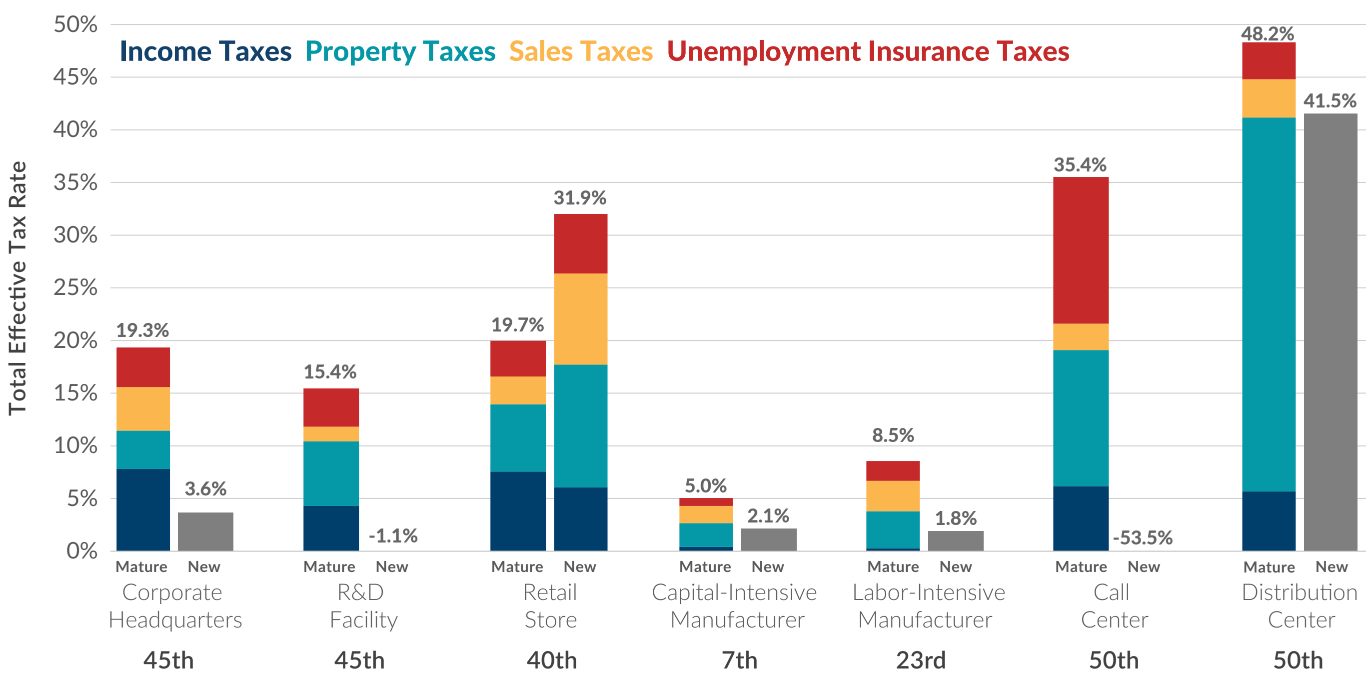
The state's manufacturing operations benefit from the fact that New Jersey does not apply the property tax to equipment.

Top Tax Rates

Tax	Rate
Corporate Income	9.0%*
Individual Income	8.97%
State Sales	7.0%
Avg. Local Sales	-0.03%†

* In New Jersey, rates apply to a corporation's entire net income rather than just the income over the threshold.

† New Jersey permits Salem County and Urban Enterprise Zones to levy a lower sales tax rate on select transactions. We reflect this as a negative local rate.



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

New Mexico

New Mexico's three-factor apportionment and sourcing rules which impose state taxes based on the location of the income-producing activity work to the detriment of firms that sell out of state. The state imposes a throwback rule, with an exemption for manufacturers.

Although equipment is included in the state's property tax base, overall property tax burdens in New Mexico are generally light. However, manufacturing machinery and research and development (R&D) equipment are also subject to sales tax, driving up costs for those firms.

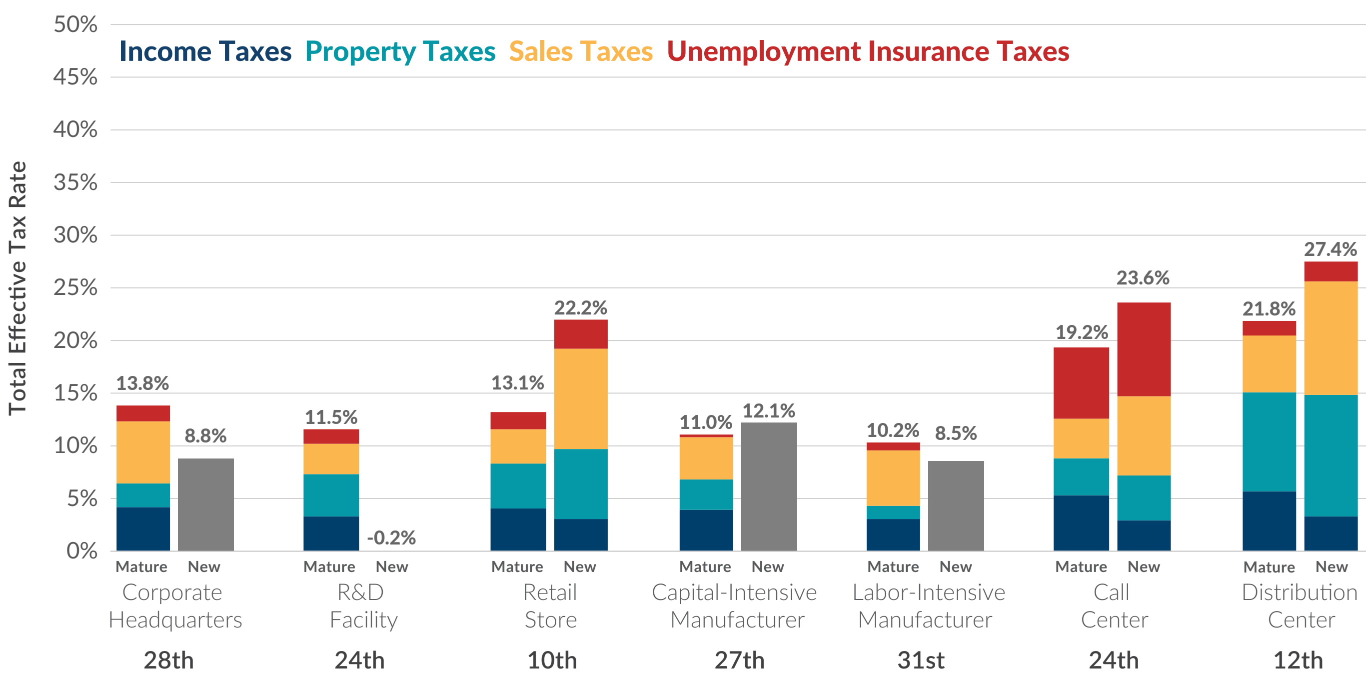
New Mexico ranks 10th for the mature retail establishment, which, with an effective tax rate of 13.1 percent, has low income and property tax burdens that help offset a high sales tax burden. The state's new manufacturing operations experience at best middle-of-the-road tax burdens. Although these operations enjoy low income and property tax burdens thanks to generous tax incentives, they experience the highest sales tax burdens in the nation for their firm types, along with above-average unemployment insurance tax burdens.

New R&D facilities actually experience a negative effective tax rate of -0.2 percent in New Mexico, meaning that the firm is subsidized through the tax code. The firm experiences low property tax burdens along with a negative income tax burden due to the state's R&D credit. The mature firm, by contrast, experiences an 11.5 percent tax burden.

The state ranks 31st for mature labor-intensive manufacturing with an effective tax rate of 10.2 percent. While the firm enjoys the fourth lowest property tax burden of its firm type, it also bears the second highest sales tax burden. The firm's moderate income tax burden would be even higher if the state did not exempt manufacturers from its throwback rule.

Top Tax Rates

Corporate Income	7.3%
Individual Income	4.9%
State Sales	5.13%
Avg. Local Sales	2.18%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

New York

New York's single sales factor apportionment and lack of a throwback rule help mitigate the impact of the state's 7.1 percent corporate income tax for firms selling tangible goods out of state. However, since the state sources service income to the location where income-producing activity took place, service sector firms working for out-of-state clients experience the full weight of the state's corporate income taxes.

Consequently, New York ranks 6th for mature capital-intensive manufacturing operations, with a tax burden of 4.5 percent, 48 percent below the median rate nationwide. This firm benefits from the state's single sales factor apportionment and reduced corporate income taxes for manufacturers. Labor-intensive manufacturing also enjoys below-average tax burdens. Conversely, the call center, which is subject to an unfavorable sourcing rule, experiences a high 24.9 percent effective tax rate, 42nd nationwide.

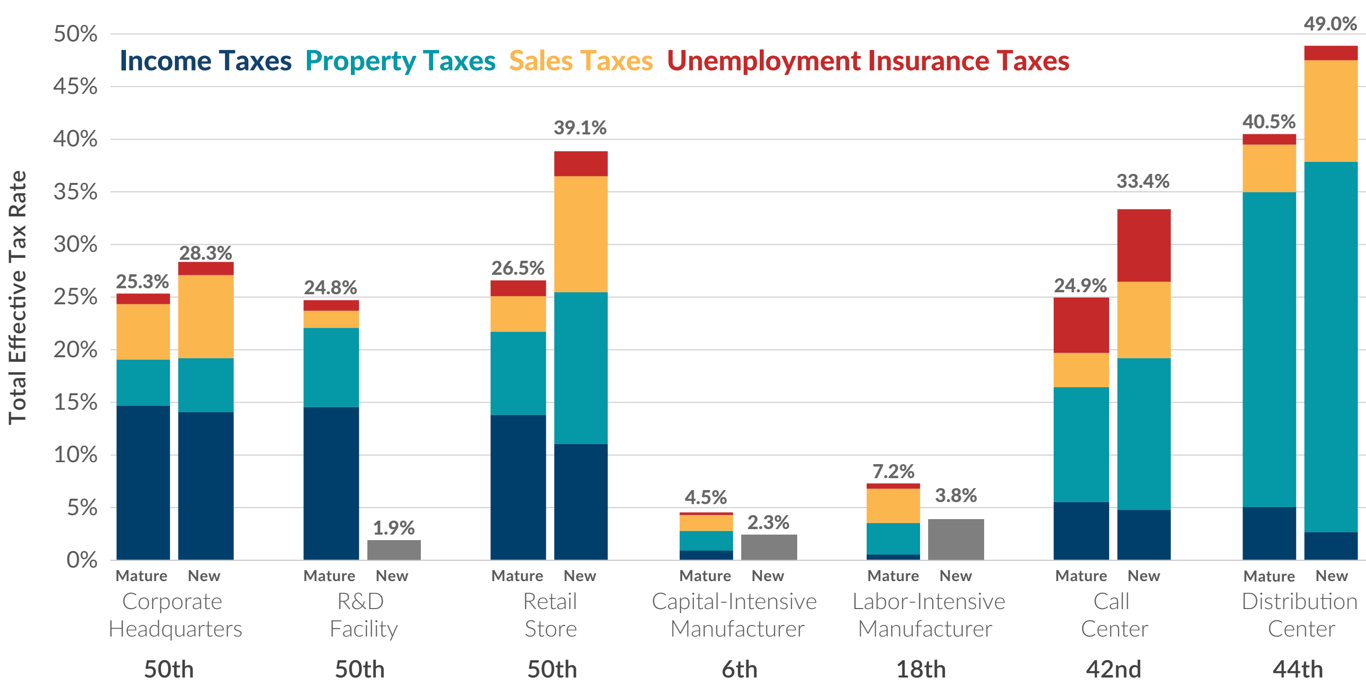
The state ranks 50th in three mature firm categories: corporate headquarters, with a tax burden 85 percent above the median; research and development (R&D) facilities, with a tax burden nearly 107 percent above the median; and retail stores, with a tax burden 71 percent above the median nationwide. All of these firm types are hampered by high income and sales tax burdens.

Due to the new Excelsior tax credits program, New York's new R&D facilities went from having one of the highest effective tax rates for its firm type in our previous edition to having one of the lower rates in the country, with a mere 1.9 percent effective tax rate. New York's extensive reliance on incentives for certain firms leads to higher effective rates for mature firms.

These effective rates and rankings do not take into account changes to New York's tax code that have yet to take effect, including a forthcoming reduction in the corporate income tax rate.

Top Tax Rates

Tax	Rate
Corporate Income	7.1%
Individual Income	8.82%
State Sales	4.0%
Avg. Local Sales	4.48%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

North Carolina

North Carolina is in the midst of implementing a historic tax reform package which involves, among other things, reductions in the state's corporate income tax rate and the expiration of the state's Article 3J credits. Only part of the ongoing reduction is captured in this study; the rate declined, on schedule, to 5 percent on January 1, 2015, after the snapshot state for this study, and is scheduled to fall to 3 percent by 2017.

All mature firms in North Carolina experience below-average tax rates. North Carolina ranks 5th for the mature corporate headquarters with an effective rate of 10.4 percent, based on a very low property tax burden and modest income, sales, and unemployment insurance (UI) tax burdens. Similar factors explain the tax burdens experienced by the mature retail operation, also ranked 5th for its firm type, and the mature distribution center, ranked 8th.

In North Carolina, the corporate income tax is responsible for 29 to 52 percent of the overall tax burden for new firms, in part due to double-weighted sales factor apportionment and the state's unfavorable sourcing rules. As such, the continued implementation of the state's tax reform package could have a meaningful impact on effective tax rates not fully captured here.

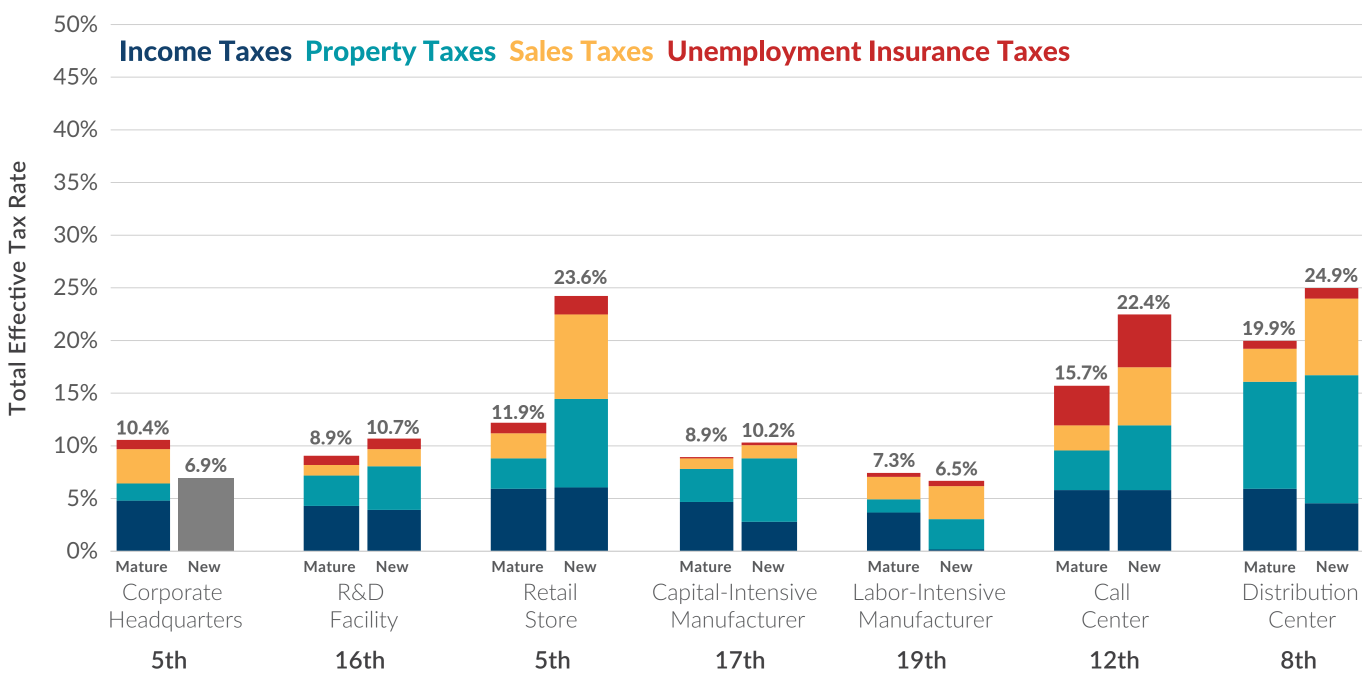
The state ranks 19th for the mature labor-intensive manufacturing operation, with an effective tax rate of 7.3 percent. Although this is the worst ranking in North Carolina for any mature firm type, it is still 20 percent below the median rate nationwide.

New firms generally experience below-average effective tax rates as well, though following tax reform, they now receive less generous incentives. The new research and development (R&D) facility, for instance, faces modest sales and UI tax rates, and property taxes are notably lower than in most other states. Those states that have lighter tax costs than North Carolina for R&D operations often do because of substantial subsidies for research and development operations which are not available in North Carolina.

Top Tax Rates

Tax	Rate
Corporate Income	6.0%*
Individual Income	5.8%
State Sales	4.75%
Avg. Local Sales	2.15%

* Decreased to 5 percent on January 1, 2015.



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

North Dakota

North Dakota's low corporate income tax greatly benefits firms operating largely or entirely in state, like the corporate headquarters, research and development (R&D) facility, and retail store. However, its evenly-weighted three-factor apportionment formula, throwback rule, and unfavorable sourcing rules disadvantage firms selling goods or services out of state.

North Dakota ranks 4th for mature corporate offices, with the firm experiencing an effective tax rate of 9.6 percent—30 percent below the median nationwide. Low income and property tax burdens, and an about-average sales tax burden, drive this performance.

The state ranks in the top half of states for all firm types, with the worst ranking (25th) coming from mature labor-intensive manufacturing, with an effective tax rate of 9.1 percent. This firm has above-average income, sales, and unemployment insurance tax burdens, with the high income tax burden driven by the state's three-factor apportionment formula and its throwback rule.

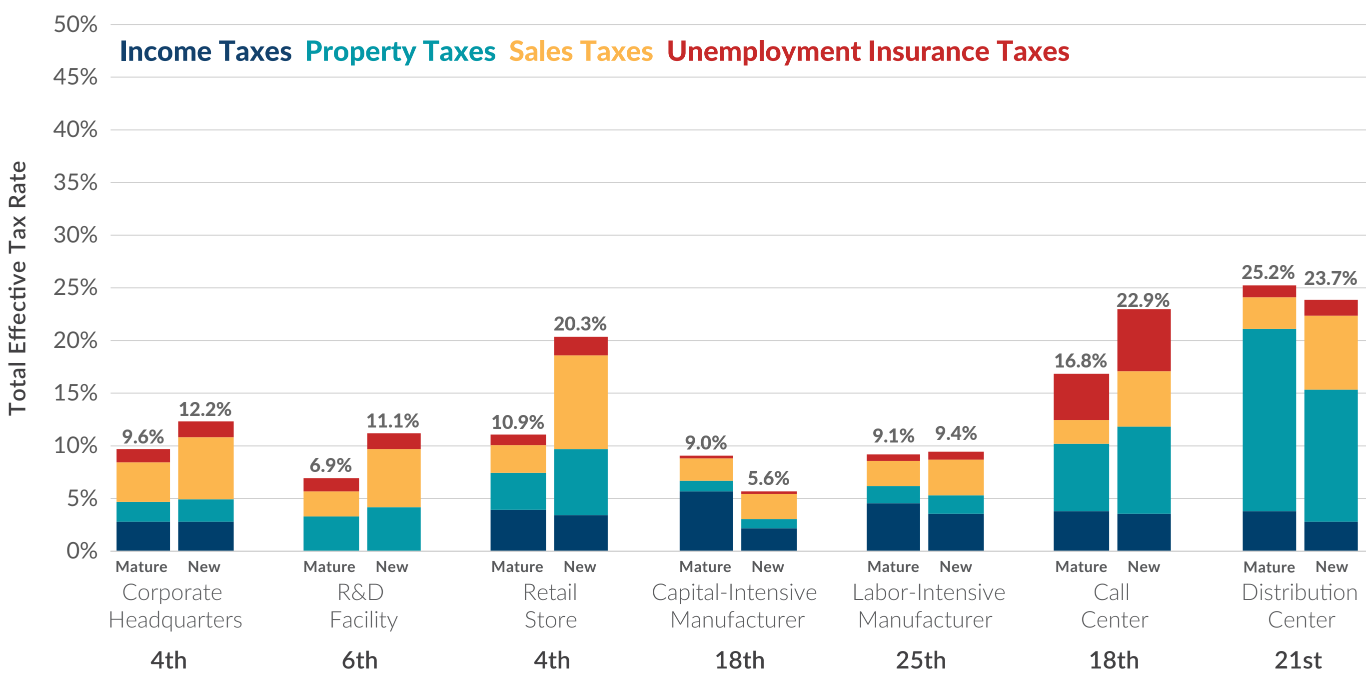
Both equipment and inventory are excluded from the state's property tax base. Atypically, manufacturing machinery is exempt from the sales tax only for new or expanding manufacturing facilities.

Because retail stores typically qualify for few incentives, these operations' effective tax rates tend to track statutory tax burdens more closely than other firms' rates. The state's low income and property tax costs lead to the 4th lowest tax costs for the mature retail firm, and a low rate for the new operation as well.

By contrast, the state's new labor-intensive manufacturing firms experience above-average tax costs with an effective tax rate of 9.4 percent. This firm has one of the highest corporate income tax burdens in the nation due in large measure to the throwback rule. The firm also experiences above-average unemployment insurance tax costs.

Top Tax Rates

Corporate Income	4.53%
Individual Income	3.22%
State Sales	5.0%
Avg. Local Sales	1.62%



Ohio

Although Ohio lacks a traditional corporate income tax, it does have the Commercial Activity Tax (CAT), a gross receipts tax levied on corporations. Issues with tax pyramiding mean that the CAT can have dramatically different impacts on distinct firm types, and can raise input costs above and beyond the tax burden directly levied on operations. As such, effective tax rates will tend to understate the economic costs imposed on firms by the state's tax system.

Ohio ranks 28th for the mature distribution center, which has an effective tax rate of 27.6 percent. Although this firm has a low corporate tax cost, this light burden is combined with above-average sales and property tax costs. It ranks 10th for the mature retail firm. The effective tax rate for this operation is 13.1 percent, and it enjoys a low income tax burden because of the favorable manner in which the CAT falls upon this firm type.

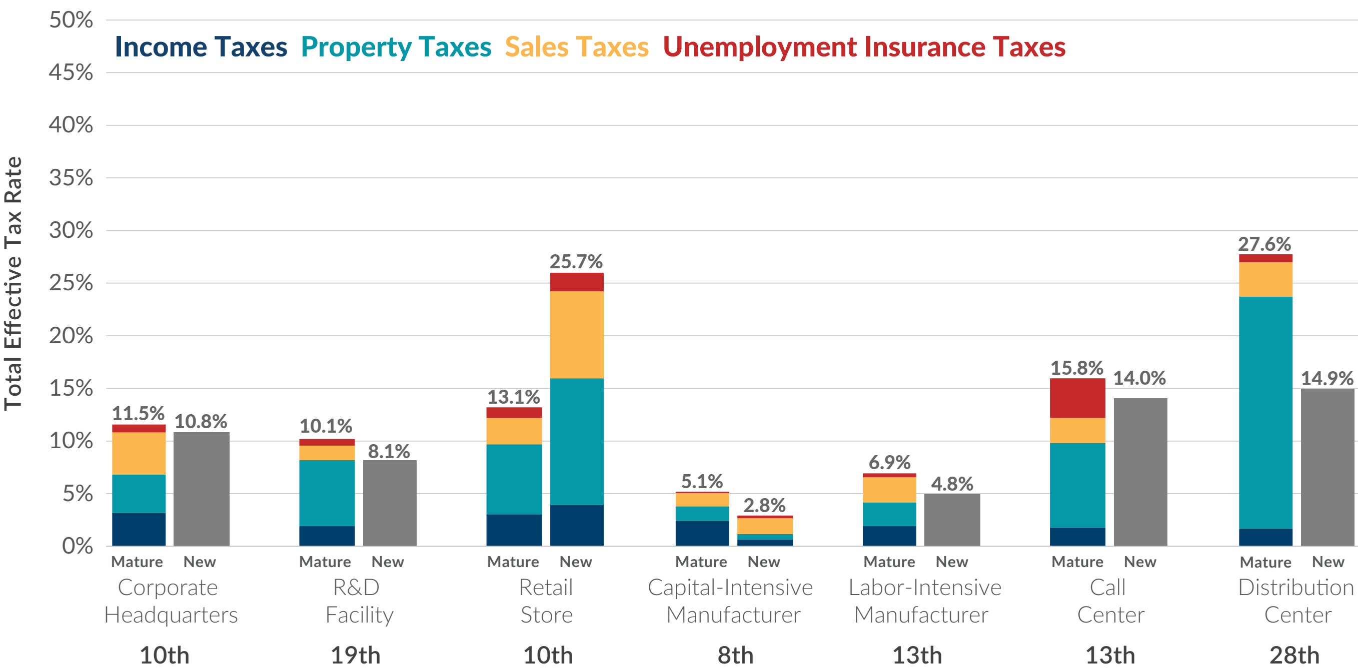
By contrast, the CAT falls much more heavily on manufacturing, with an above-average income tax burden on new capital-intensive manufacturing offset by the lowest property tax burden in the nation for this firm type, thanks to generous abatements. The firm's effective tax rate is 2.8 percent, ranking 6th overall.

Generous property tax abatements benefit new distribution centers as well as manufacturing operations. Ohio's new distribution center has an effective tax rate of 14.9 percent, more than 53 percent below the median rate nationwide, due in large part to the fact that Ohio offers the second-most generous property tax abatement in the nation for this firm type.

Top Tax Rates

Corporate Income	—*
Individual Income	5.333%
State Sales	5.75%
Avg. Local Sales	1.36%

* In lieu of a traditional corporate income tax, Ohio levies a gross receipts tax at a base rate of 0.26 percent.



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Oklahoma

The state's generous investment and withholding tax credits combine to yield a negative income tax burden for five of the seven new firms—all but retail stores and capital-intensive manufacturing operations. Consequently, all new firms but the retail store experience below-average tax burdens. The new call center, by way of example, has an effective tax rate of 4.0 percent. The firm benefits from Oklahoma's generous withholding tax rebate and favorable sourcing rules for service income, which apportion the firm's income where the market is. Mature call centers, by contrast, experience an effective tax rate of 16.6 percent.

The state ranks 29th for mature capital- and labor-intensive manufacturing operations. Both operations suffer from above-average income, sales, and unemployment insurance taxes, although the labor-intensive operation benefits from some of the lowest property tax burdens in the nation. Unfavorable apportionment formulas and a throwback rule contribute to these firms' overall high tax burden.

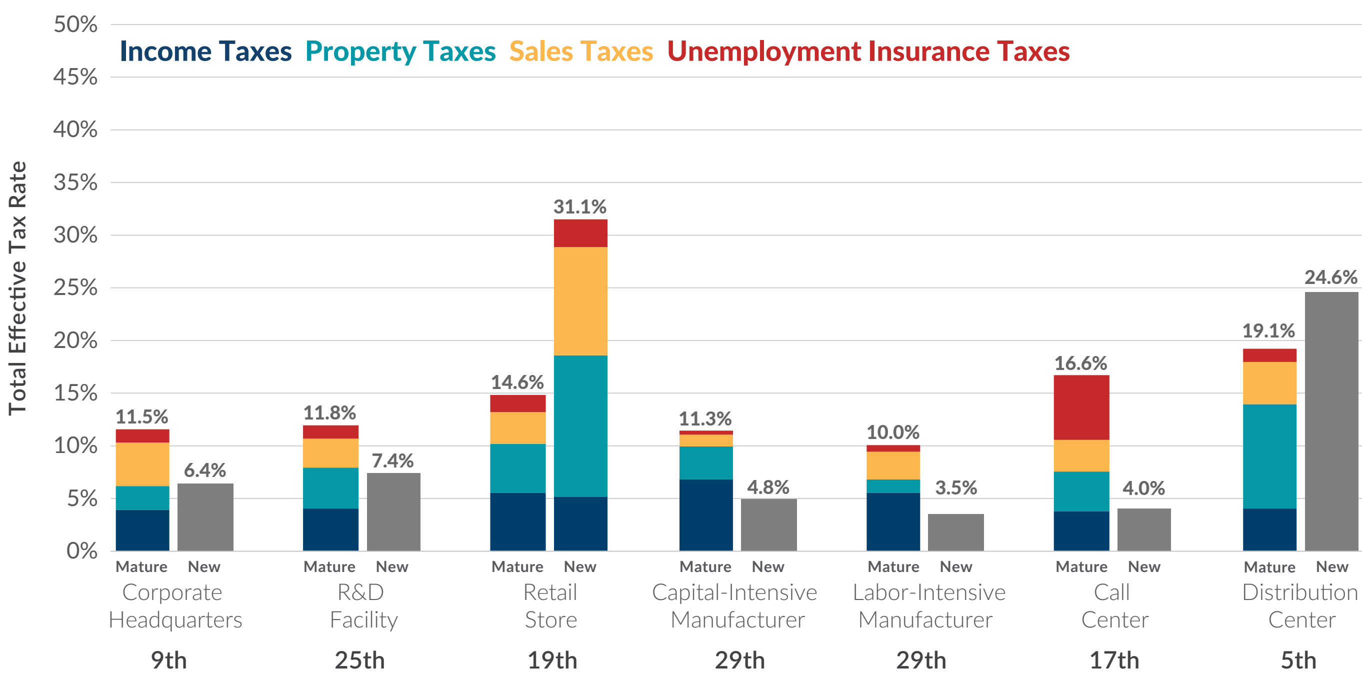
Oklahoma uses an evenly-weighted three-factor apportionment formula, except for firms with capital investment of more than $200 million, which may use double-weighted sales factor apportionment. This option is available to the capital-intensive manufacturing operation in our study, but not to the labor-intensive manufacturer.

Oklahoma ranks 9th overall for mature corporate headquarters, due primarily to relatively modest income and property tax burdens on this firm type. And although Oklahoma includes research and development (R&D) equipment in the sales tax base, driving up tax costs for new R&D firms, extremely generous tax incentives valued at an estimated $7,290 per job keep this firm's tax costs low.

Manufacturing machinery is also included in the sales tax base but exempted for a firm's first five years. The property tax includes both equipment and inventory in addition to land and buildings, driving up property tax costs for mature firms and others not subject to abatements.

Top Tax Rates

Corporate Income	6.0%
Individual Income	5.25%
State Sales	4.5%
Avg. Local Sales	4.26%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Oregon

The state's high corporate income tax rate, along with its throwback rule and unfavorable sourcing rules, yields above-average overall burdens for most firm types despite the state forgoing a sales tax.

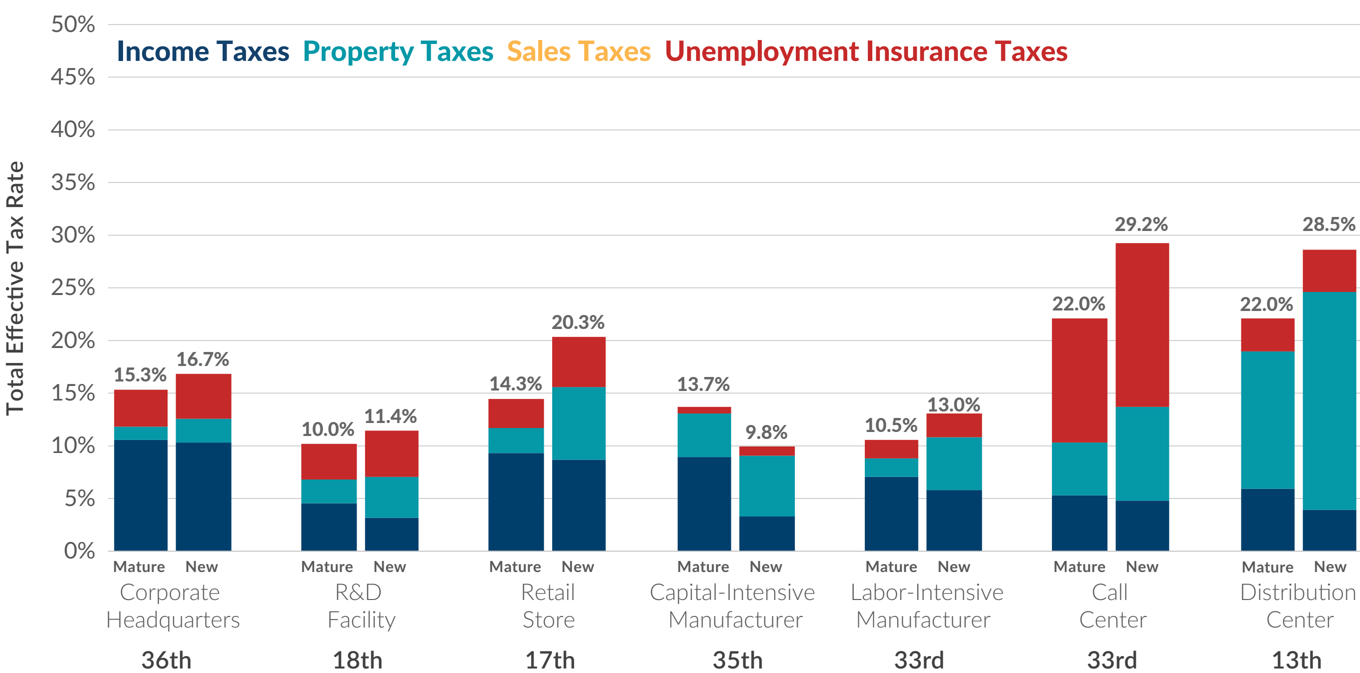
Oregon's new retail stores are significant beneficiaries of the state's decision to forego a sales tax. Our study does not include sales taxes on the store's merchandise, even though retail operations may bear some of that burden in economic terms. However, retail stores—and new operations in particular—have many business expenses generally subject to sales tax, and thus do well in a state without a sales tax.

A low property tax burden also contributes to new retail stores' low effective tax rate, though the operation is constrained by the nation's second highest income tax burden and fourth highest unemployment insurance (UI) tax burden. Conversely, new and mature call centers both experience above-average tax burdens, weighed down by some of the nation's highest UI tax costs and high income tax burdens due to unfavorable sourcing rules for services.

The state's property tax extends to equipment, which can have a substantial impact, particularly on manufacturing firms. By way of example, the state imposes a particularly high tax burden on the new labor-intensive manufacturing firm with an effective tax rate of 13.0 percent. This firm has the fifth highest income tax burden and the fourth highest unemployment insurance tax burden in the nation, and—in a break with other firm types modeled in Oregon—experiences an above-average property tax burden due to property taxes on equipment.

Top Tax Rates

Top Tax Rates	
Corporate Income	7.6%
Individual Income	9.9%
State Sales	—
Avg. Local Sales	—



Pennsylvania

Pennsylvania has the second highest corporate income tax rate in the country, with a flat 9.99 percent rate. Due to single sales factor apportionment, benefits sourcing, and the lack of a throwback rule, however, the income tax burden is actually low for four of the seven mature firms in our study.

Corporate headquarters, however, are not among those benefitting from these rules. Both the new and mature corporate headquarters experience the highest income tax burden for firms of their type in the nation, due to the state's high 9.99 percent tax on all corporate income. The effective tax rate on mature corporate headquarters is nearly 48 percent above the median.

The mature capital-intensive manufacturing operation, by contrast, ranks 4th in the nation with an effective rate of 4.2 percent due to the state's single sales factor apportionment and the lack of a throwback rule. Labor-intensive manufacturing facilities also experience significantly below-average tax costs.

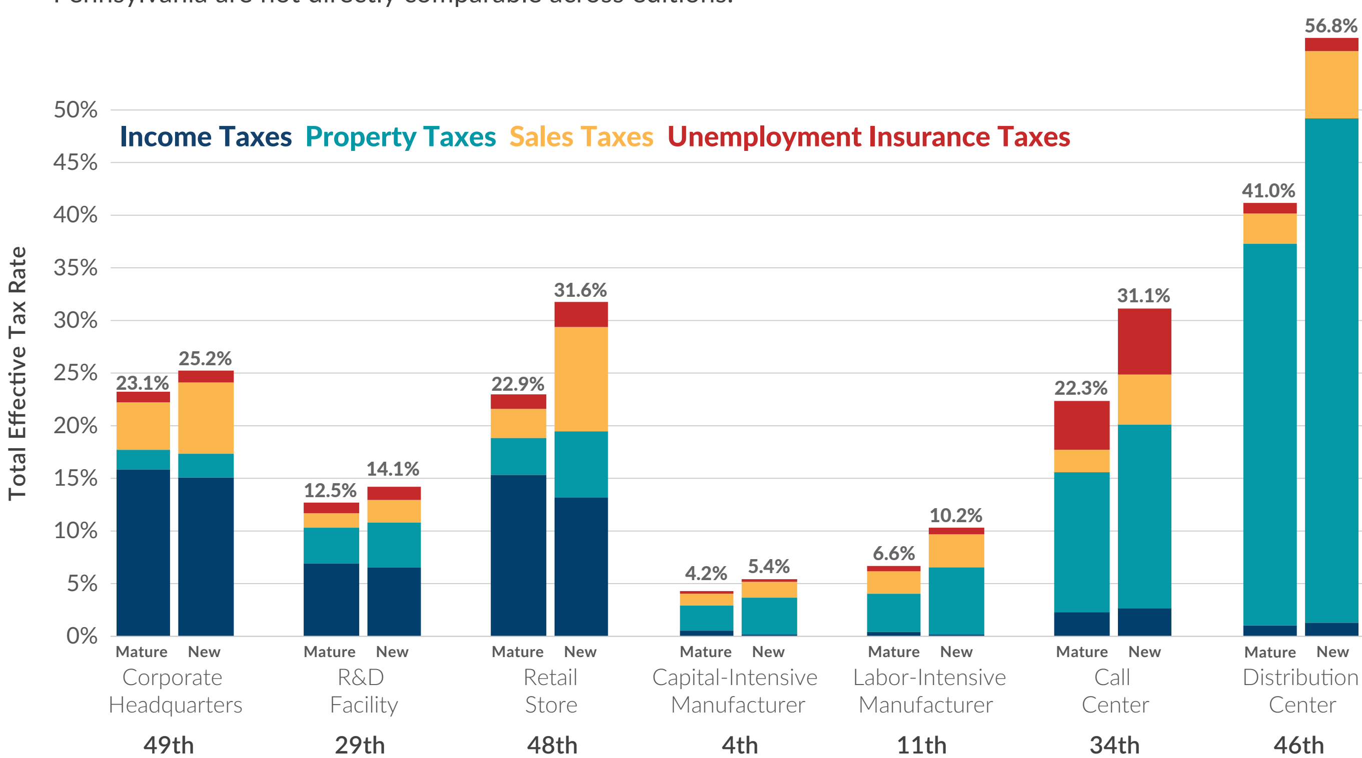
High tax rates for the distribution center and call center are substantially driven by high property tax burdens, the second highest in the country for their firm types in both cases at 85 and 79 percent above the national average respectively. The incredibly high 56.8 percent effective rate on new distribution centers is 83.1 percent above the median. All firms in our study but the two manufacturing operations are also subject to locally-imposed gross receipts taxes.

Although the state does offer research and development (R&D) incentives, they do little to offset the state's high tax burdens, and both the new and mature firms experience above-average taxes overall.

Methodological changes from our previous edition yield lower property tax burdens for Tier 1 firms in Pennsylvania; as such, the effective tax rates for Tier 1 firms in Pennsylvania are not directly comparable across editions.

Top Tax Rates

Corporate Income	9.99%
Individual Income	3.07%
State Sales	6.0%
Avg. Local Sales	0.34%



Rhode Island

All mature firms in Rhode Island experience above-average tax burdens, with six of the seven firms experiencing among the third highest burdens nationwide. Six of the seven new firms also experience significantly above-average tax credits.

Rhode Island's high corporate income tax combined with an evenly-weighted three-factor apportionment rule works to the detriment of all firms in our study, but particularly those with sales out of state. The state also adopts a throwback rule and sources all service income in state. All of these factors drive up tax costs for most firms. Manufacturing firms, however, can use an optional double-weighted sales apportionment factor, which, while still far from ideal for such operations, offers a lighter tax burden than these operations would experience under evenly-weighted three-factor apportionment.

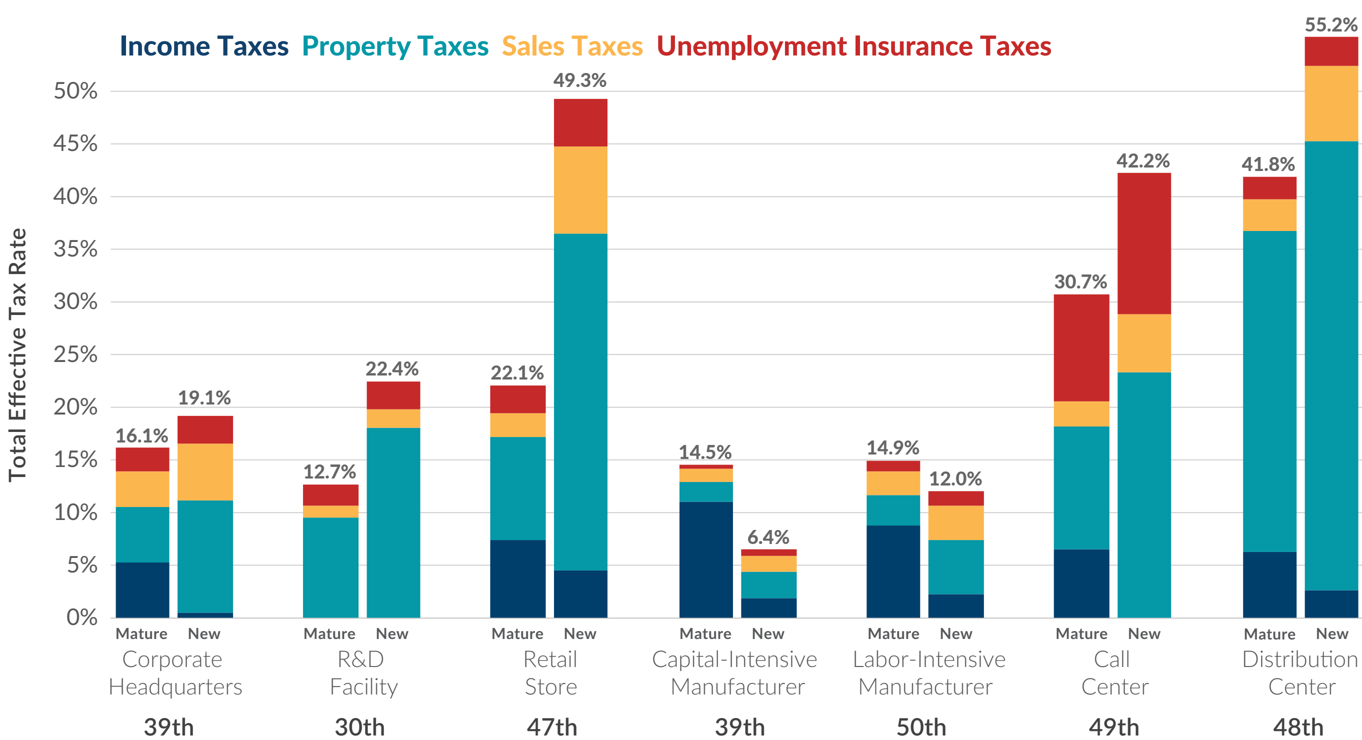
Only the new capital-intensive manufacturing firm experiences a below-average tax burden, benefiting from Rhode Island's generous property tax abatement and investment tax credits which help make up for the high statutory income tax rate and the firm's high unemployment insurance tax burden.

For new firms, the state's highest tax costs are on the distribution center, which experiences an effective tax rate of 55.2 percent, over 72 percent above the median nationwide. This rate is driven by the state's 9 percent corporate income tax and the throwback rule, as well as property tax and unemployment insurance rates among the highest in the nation.

Both the new and mature research and development (R&D) operations experience some of the highest tax costs in the nation for this firm type despite receiving above-average R&D incentives.

Top Tax Rates

Tax	Rate
Corporate Income	9.0%
Individual Income	5.99%
State Sales	7.0%
Avg. Local Sales	—



South Carolina

South Carolina's single sales factor apportionment and lack of a throwback rule work to the benefit of many of the firms in our study, as does the state's relatively modest corporate income tax. However, the state imposes some of the highest effective property tax rates in the country, due in significant part to high property taxes on equipment.

The state's lightest tax costs are on labor-intensive manufacturing firms, which benefit from a low income tax burden, attributable to the state's lack of a throwback rule, but are hampered by extremely high property tax burdens, even despite a particularly generous 45 percent property tax abatement for the first twenty years of operations. All other firm types in our study experience above-average tax burdens in South Carolina.

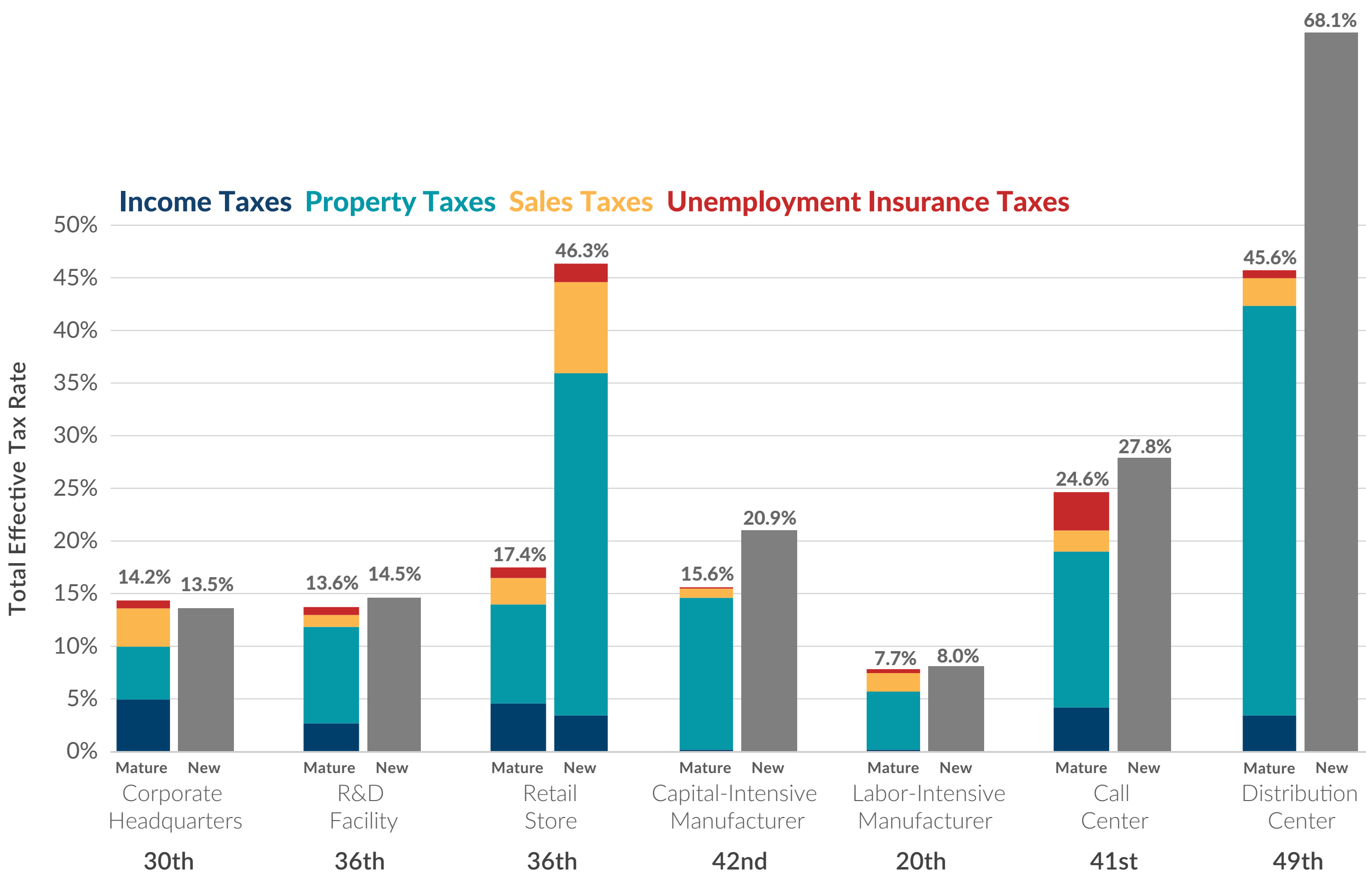
The new distribution center experiences the heaviest tax burden of any operation in our study with an effective tax rate of 68.1 percent, more than double the median rate for this firm type nationwide. The mature distribution center's 45.6 percent tax rate is the second highest for that firm type in the nation, due in considerable degree to its property tax burden, the nation's highest, and to the fact that the state's sourcing rules for service expose 100 percent of the firm's income to in-state taxation.

While tax burdens in South Carolina are relatively similar across new and mature firms, the state imposes dramatically different effective tax rates on unique firm types, ranging from 7.7 percent for the mature labor-intensive manufacturing operation to 68.1 percent for the new distribution center.

South Carolina is one of eighteen states which still imposes a capital stock tax, and one of the fourteen that requires business taxpayers to remit both corporate income taxes and capital stock taxes, rather than just the higher of the burdens.

Top Tax Rates

Top Tax Rates	
Corporate Income	5.0%
Individual Income	7.0%
State Sales	6.0%
Avg. Local Sales	1.13%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

South Dakota

South Dakota levies neither corporate nor individual income taxes, and has generally low property taxes and modest sales taxes even with local sales taxes included. Accordingly, mature firms experience consistently low tax burdens in South Dakota, with six of the seven mature firms we model ranking in the top ten for lowest tax burdens.

South Dakota only offers one incentive for newly established operations, a property tax abatement available solely to manufacturing firms. For that reason, its effective rates for new operations hover around the national average despite the lack of an individual or corporate income tax, while mature firms enjoy low tax burdens. For instance, the mature corporate headquarters is ranked second and mature call centers come in 5th, thanks to the lack of a corporate income tax, low unemployment insurance tax burdens, and low property taxes.

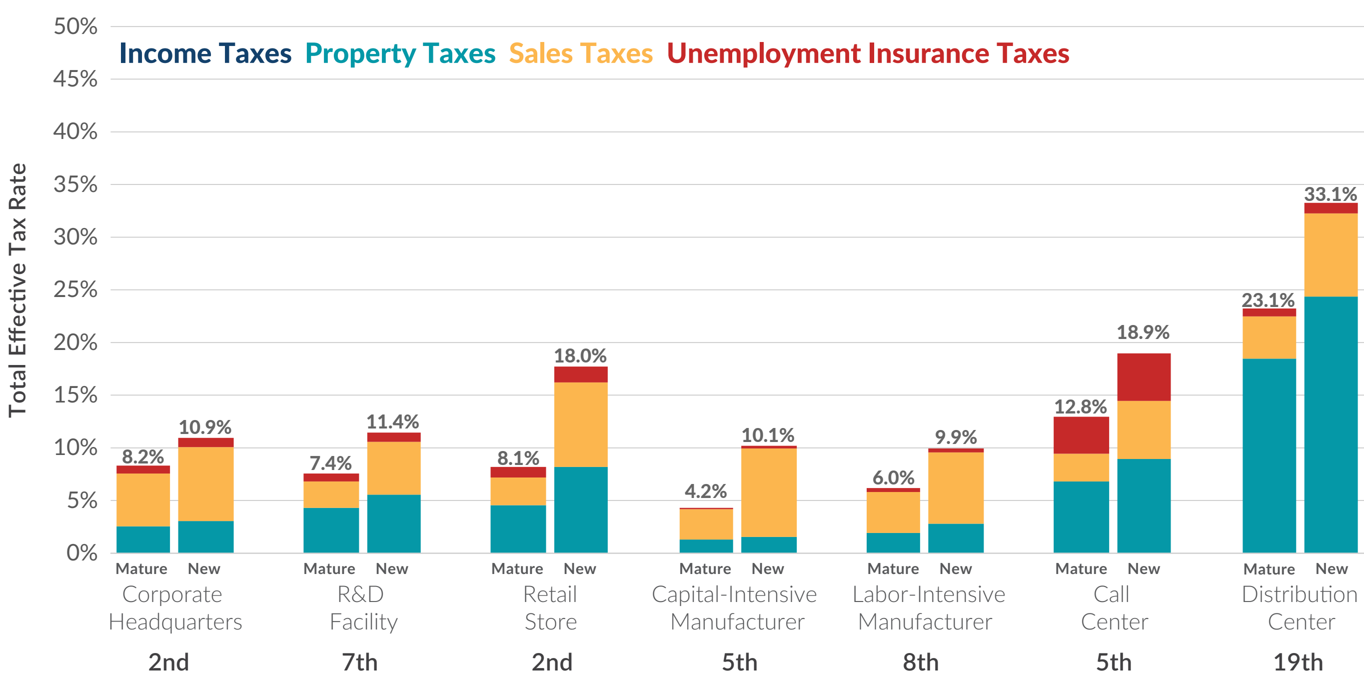
Because new retail operations rarely receive incentives, South Dakota's structurally low taxes give it a comparative advantage for new retail stores, which experience one of the lowest burdens in the country for that firm type. Mature retail operations also experience very low tax burdens.

The newly-established capital-intensive manufacturing operation is the only firm in South Dakota to experience a tax burden in the bottom third for its firm type, with an effective tax rate of 10.1 percent, 16 percent above the median rate nationwide. This firm garners only a very modest benefit from South Dakota's sole incentive for new businesses, a property tax abatement.

Mature manufacturing operations, both labor- and capital-intensive, fare well in South Dakota, since the state forgoes a corporate income tax, has low property taxes, and does not impose property taxes on equipment or inventory. The mature capital-intensive manufacturing operation ranks 5th with an effective tax rate of 4.2 percent, while the labor-intensive operation ranks 8th with an effective tax rate of 6.0 percent.

Top Tax Rates

Top Tax Rates	
Corporate Income	—
Individual Income	—
State Sales	4.0%
Avg. Local Sales	1.83%



Tennessee

Tennessee largely foregoes an individual income tax, although it does tax interest and dividend income, and imposes a corporate income tax of 6.5 percent along with a high sales tax with a substantial local component.

The state employs double-weighted sales apportionment and foregoes a throwback rule. Services are sourced to the location of the income-producing activity, such that in-state firms selling services into states with which they lack nexus have their entire service income from those states subject to Tennessee's corporate income tax.

High sales taxes and above-average unemployment insurance taxes combined with an above-average income tax burden drive Tennessee's 30th place ranking for mature labor-intensive firms, and similar factors result in an above-average tax burden for all but one mature firm in our study.

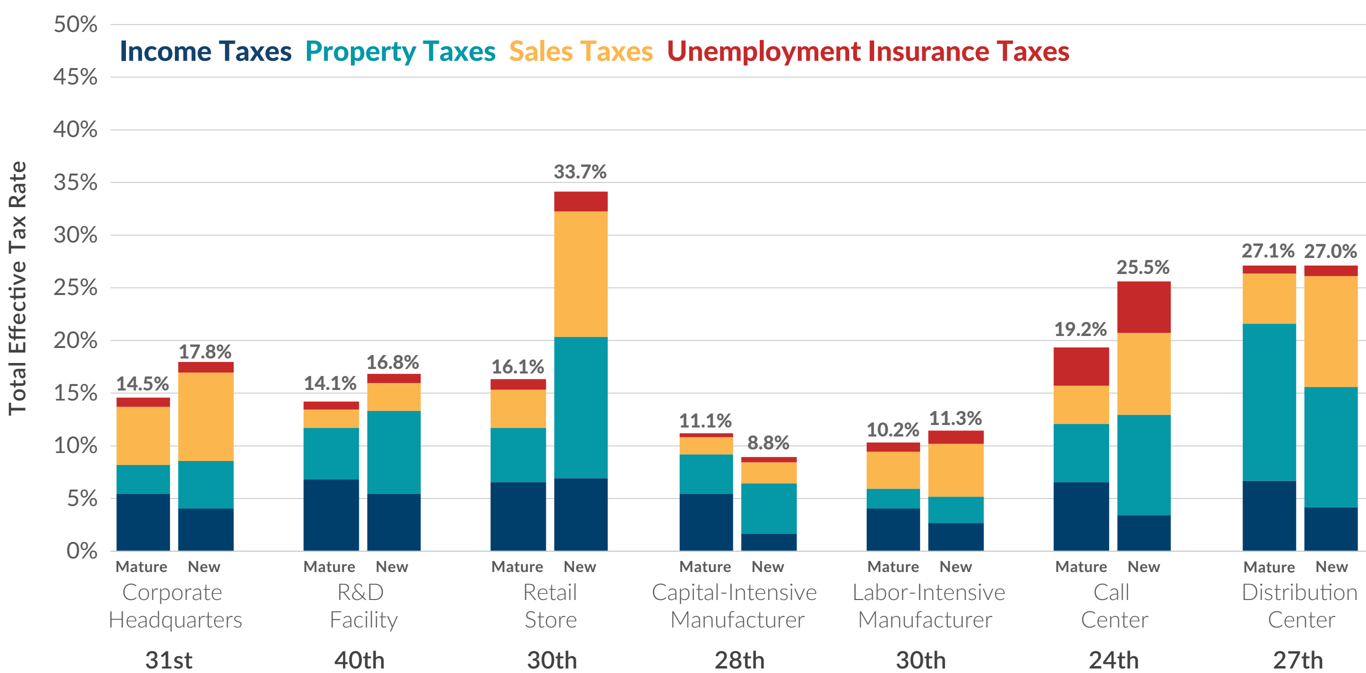
The new distribution center incurs the lightest tax burden relative to its peer firms in other states, with an effective tax rate of 27.0 percent. The Tennessee firm benefits from the state's property tax abatement incentive and its job tax credit. The former is particularly beneficial to this property-heavy firm while the latter benefits new firms generally.

While the lack of a throwback rule helps the state's rankings for most firm types, 11 of the 14 firm types still face above-average tax burdens.

Top Tax Rates

Top Tax Rates	
Corporate Income	6.5%
Individual Income	—*
State Sales	7.0%
Avg. Local Sales	2.45%

* Tennessee does, however, impose a 6 percent tax on interest and dividend income, called the Hall income tax.



Texas

Texas does not levy a traditional corporate income tax. It does, however, impose a modified gross receipts tax known as the Margin Tax, which is levied at a rate of 0.975 percent on a calculation of taxable margin, with half-rates for retail and wholesale. Although certain subtractions from total gross receipts are allowed, the amount subject to tax is much higher than would be associated with a traditional corporate income tax.

While Texas sources service income to the location of the income-producing activity, to the detriment of service providers in our study, the state does use single sales factor apportionment without a throwback rule, which benefits firms selling goods out of state.

The state's relatively high property and sales taxes, combined with a lack of tax incentives, yield substantially above-average tax burdens for all new firm types. Mature firms rank better and—somewhat atypically—consistently experience lower effective tax rates.

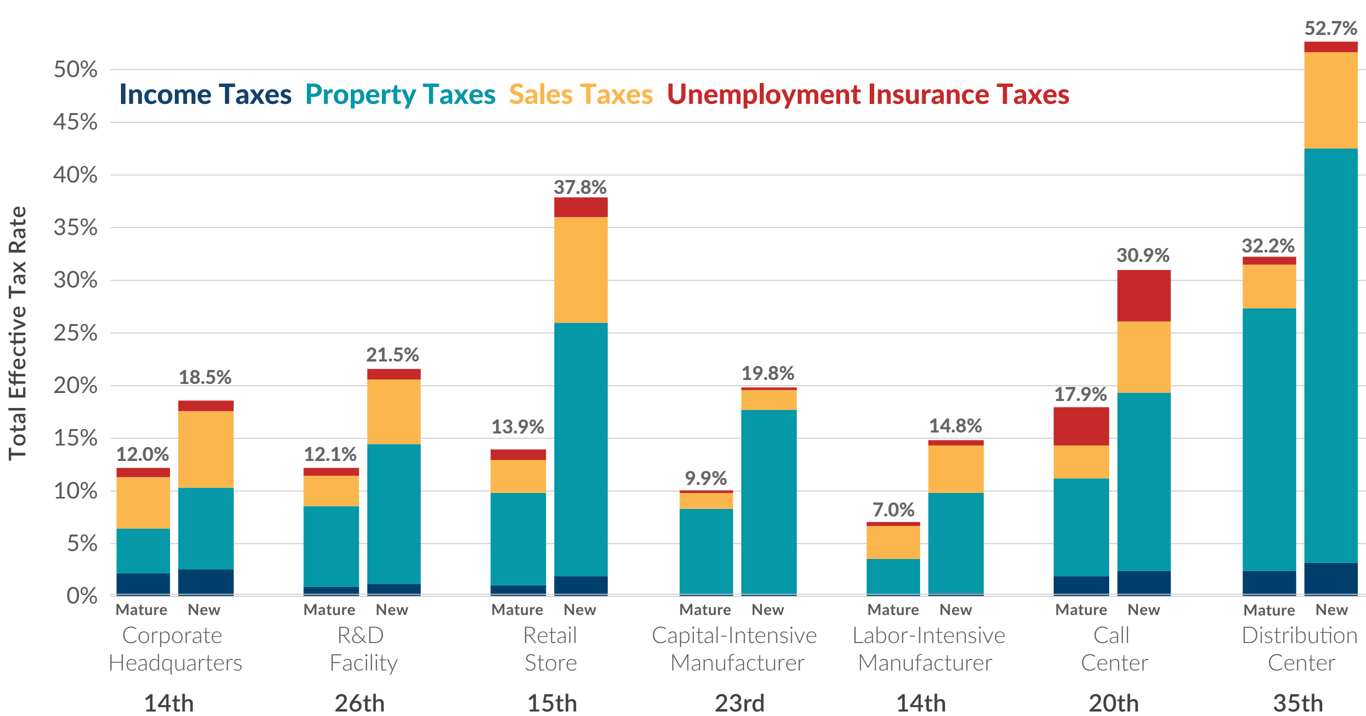
Texas includes equipment and inventory in its property tax base in addition to land and buildings, driving up the costs for most firms in our study, but particularly the manufacturing, distribution, and research and development (R&D) operations. Nevertheless, the mature firms with the lightest tax costs in Texas are the labor-intensive manufacturing operation, with a 7.0 percent effective tax rate, and the capital-intensive manufacturing operation, with an effective tax rate of 9.9 percent. The state ranks 14th and 23rd in the nation, respectively, for these firm types. These firms have relatively low income and unemployment insurance tax burdens, countervailed by high sales and property taxes, exacerbated by the fact that Texas is one of just nine states to fully impose an inventory tax.

The new R&D and manufacturing operations experience some of the highest tax burdens for firms of their type in the nation. The high tax costs of these firms are driven by high property taxes, sales taxes, and the lack of incentives.

Top Tax Rates

Top Tax Rates	
Corporate Income	—*
Individual Income	—
State Sales	6.25%
Avg. Local Sales	1.91%

* Texas does not impose a corporate income tax, but does levy a gross receipts tax known as the Franchise Tax or, more commonly, the Margin Tax.



Utah

Twelve of the 14 firm types we modeled experience below-average tax burdens in Utah; the other two, mature capital- and labor-intensive manufacturing operations, each rank 26th.

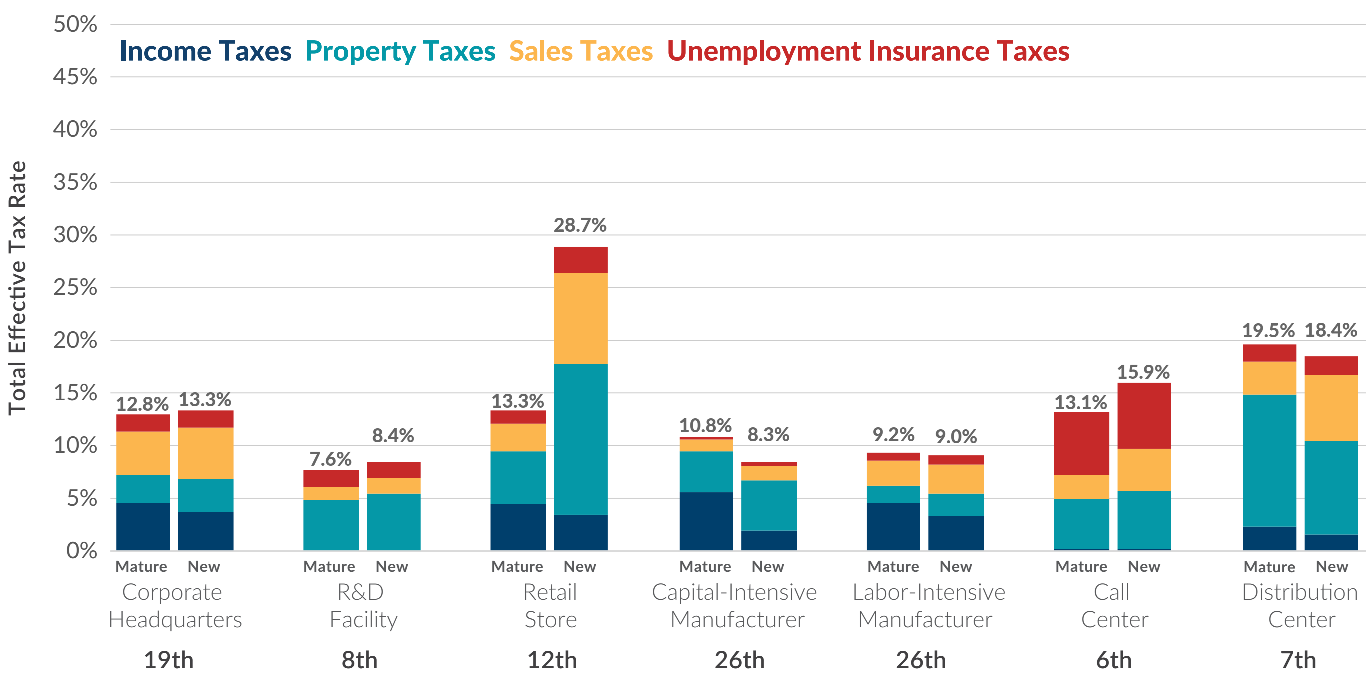
Utah is unusual in generally employing a single sales factor apportionment formula, but subjecting manufacturing and logistics operations to a less favorable double-weighted sales factor apportionment formula. The state also employs a throwback rule. These factors contribute to the manufacturing firms' higher taxes overall, yielding an above-average income tax burden, and Utah's high wage limit gives these firms a high unemployment insurance tax burden. These firms are also hindered somewhat by a property tax base that includes equipment, though, at the same time, manufacturing machinery is exempt from the sales tax, which is particularly beneficial to new firms.

The state's sourcing rules, which are based on the location where the benefit of a service is received, work to the advantage of companies providing services out of state. Even with a throwback rule, these rules and the state's relatively modest corporate income tax rate help the mature call center experience one of the lower tax burdens in the nation for its firm type. The mature distribution center also fares well, despite the relatively unfavorable apportionment rules for logistics firms.

Utah offers generous job creation incentives and property tax abatements for new firms, and offers meaningful incentives to research and development (R&D) facilities regardless of age, which works to the particular benefit of mature R&D operations, which rarely receive such incentives in other states. Moreover, R&D equipment is exempt from the sales tax.

Top Tax Rates

Corporate Income	5.0%
Individual Income	5.0%
State Sales	5.95%
Avg. Local Sales	0.73%



Vermont

Vermont combines a high corporate income tax (with a top rate of 8.5 percent applying to all income over $25,000) with double-weighted sales factor apportionment, a throwback rule, and sourcing rules which subject all in-state income producing activity to Vermont taxation regardless of where the services are rendered. The result is above-average tax burdens for most mature firms in our study.

Vermont ranks 47th for mature capital-intensive manufacturing operations, due in large part to the state's high 8.5 percent statutory corporate income tax rate, which saddles this firm with the sixth highest income tax burden in the nation for its firm type.

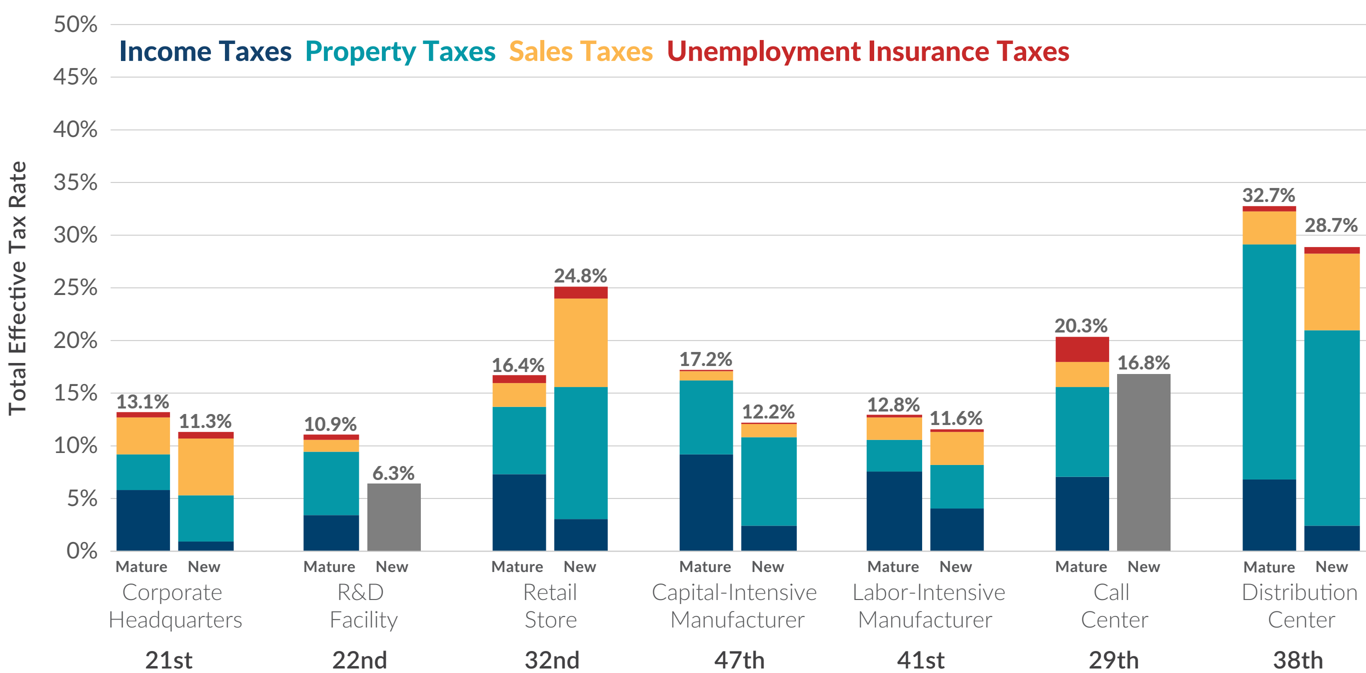
Vermont offers relatively generous incentives, particularly for new firms, which explains why several new firms compare reasonably well to their counterparts in other states, even as the mature firms do not. In particular, a withholding tax rebate of 20 percent of new payroll over five years benefits new firms in our study.

Both the new and mature call centers benefit from some of the lowest unemployment insurance tax burdens in the nation, along with a modest sales tax burden. Low unemployment insurance burdens are also a major factor for distribution centers, which nonetheless experience middle-of-the-pack tax burdens due to the state's high income tax.

Vermont's property tax base includes land, buildings, and equipment, but the tax on buildings and equipment is wholly abated for a firm's first five years in operation. Somewhat atypically, the new retail store receives generous incentives which help keep its income tax burden modest, and the firm's sales, property, and unemployment insurance tax burdens are all below average.

Top Tax Rates

Corporate Income	8.5%
Individual Income	8.95%
State Sales	6.0%
Avg. Local Sales	0.14%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Virginia

High property taxes on equipment drive tax burdens for some firms, with a particularly dramatic effect on new operations. For instance, Virginia ranks second for mature labor-intensive manufacturing operations but imposes an above-average tax burden on new operations. The mature firm experiences modest burdens across the board, ranking seventh on sales tax burdens, 16th on both income tax and unemployment insurance tax burdens, and 23rd on property tax burdens, to yield one of the lowest effective rates in the nation for its firm type. The new firm, however, experiences heavy property tax burdens due to the state's tax on equipment, which is more than double the national average.

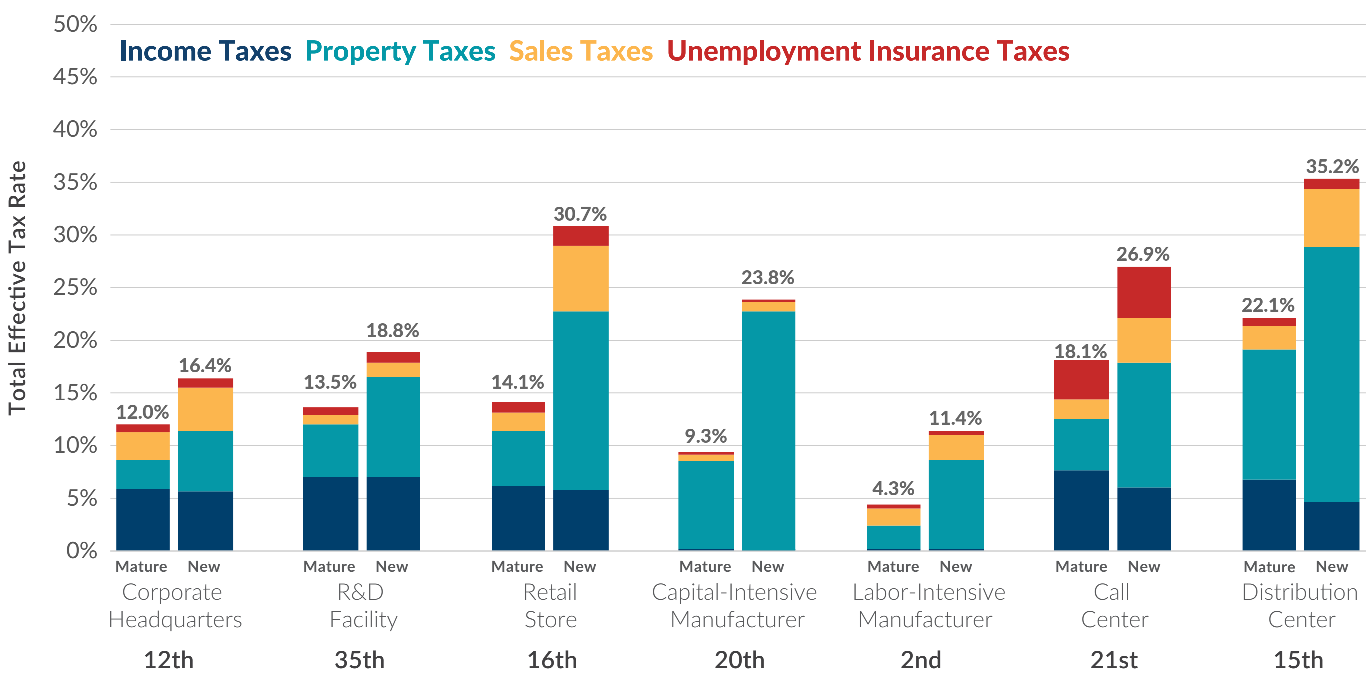
The same factors that contribute to the low tax burden for mature labor-intensive manufacturing firms also benefit mature retail operations, capital-intensive manufacturing, and corporate headquarters. The state's research and development (R&D) facilities face above-average income tax costs due to the state's sourcing rules and the absence of R&D incentives.

Virginia uses double-weighted sales factor apportionment, with an optional single sales factor apportionment formula for manufacturing operations. The state does not employ a throwback rule, but does source all service income to the location of income-producing activity.

Virginia is one of a small number of states to impose a gross receipts tax, in this case the locally-levied Business/Professional/Occupational License (BPOL) Tax, with rate schedules varying across localities. This tax is imposed in addition to the state's 6.0 percent corporate income tax. The state's local sales taxes consist of an additional 0.7 percent in Northern Virginia and Hampton Roads.

Top Tax Rates

Corporate Income	6.0%
Individual Income	5.75%
State Sales	5.3%
Avg. Local Sales	0.33%



Washington

In lieu of a traditional corporate income tax, Washington imposes a gross receipts tax called the Business & Occupation (B&O) Tax. The structure of this tax, which imposes different rates on distinct industry categories, contributes to vertical integration as firms seek to claim an industry classification subject to a lesser tax burden.

Because our model firms represent "typical" examples of their type, they fare better under gross receipts taxation than would many real-world firms, since Washington's B&O Tax is indifferent to a firm's actual profit margins.

For mature operations, Washington ranks 6th for both retail stores and distribution centers. The effective tax burden for retail is 22 percent below the median, and the tax burden for distribution centers is 27 percent below the median. These firms do well under the state's gross receipts tax. The state also has a low property tax burden on these operations, although sales tax burdens are high.

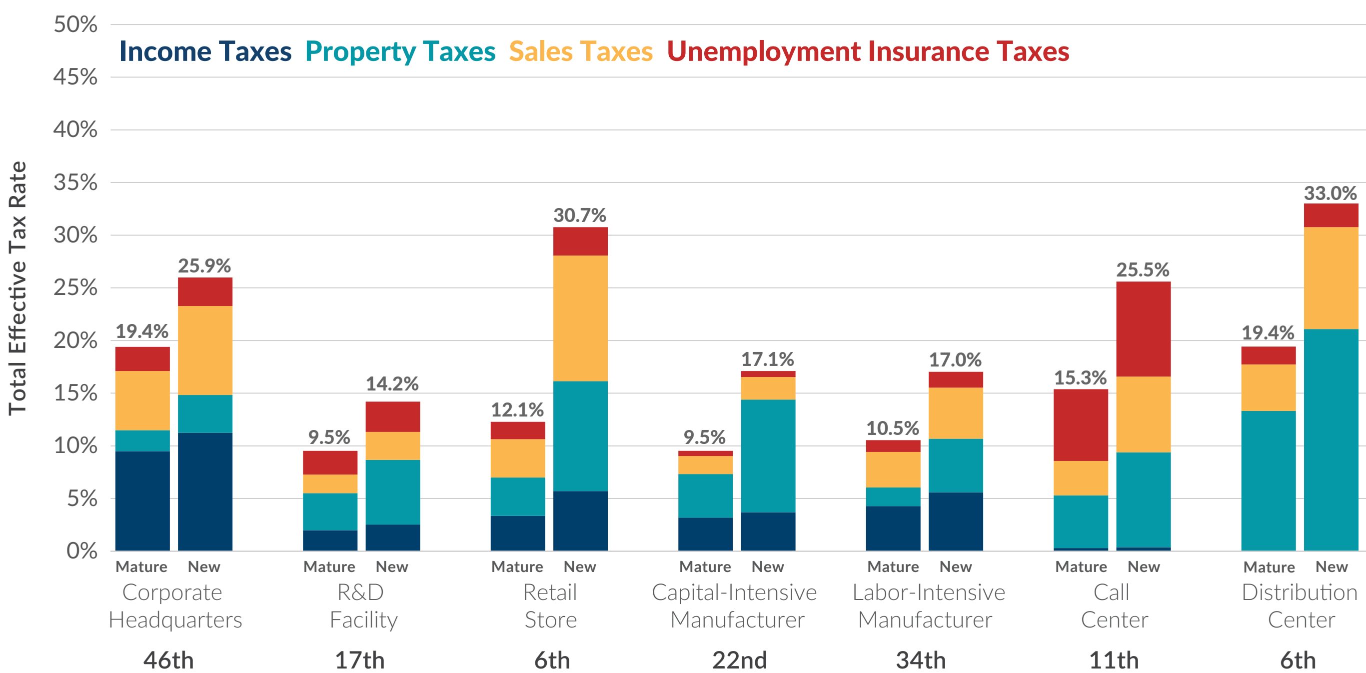
By contrast, Washington ranks 46th for the mature corporate headquarters, which experiences an effective tax rate of 19.4 percent, driven by very high unemployment insurance (UI) and sales taxes. Similarly, the new corporate headquarters experiences an effective tax burden 92 percent higher than the median nationwide, driven by extremely high sales and UI tax burdens along with a substantial burden under the state's gross receipts tax.

Washington employs single sales factor apportionment and benefits sourcing, both of which favor many of the firms in our study, but also imposes a throwback rule on tangible property sales. The state's property tax base includes equipment, though the sales tax base expressly excludes manufacturing machinery and research and development (R&D) equipment.

* Washington lacks a traditional corporate income tax, but imposes a gross receipts tax called the Business & Occupation (B&O) Tax.

Top Tax Rates

Top Tax Rates	
Corporate Income	—*
Individual Income	—
State Sales	6.5%
Avg. Local Sales	2.38%



West Virginia

Every mature firm type in West Virginia has an above-average effective tax rate, though due to cuts in the corporate income tax since our previous edition, these operations now experience a lighter—though not necessarily light—income tax burden.

The state uses double-weighted sales factor apportionment and applies a throwback rule to the sale of goods into states with which a firm lacks nexus. Similarly, services income is taxed at the location of the income-producing activity, subjecting the out-of-state income of West Virginia-based service providers to in-state taxation.

West Virginia also imposes gross receipts taxes on select industries, and at the snapshot date of this study, imposed an antiquated capital stock tax, which has since been phased out. The state's property tax applies to equipment and inventory as well as land and buildings.

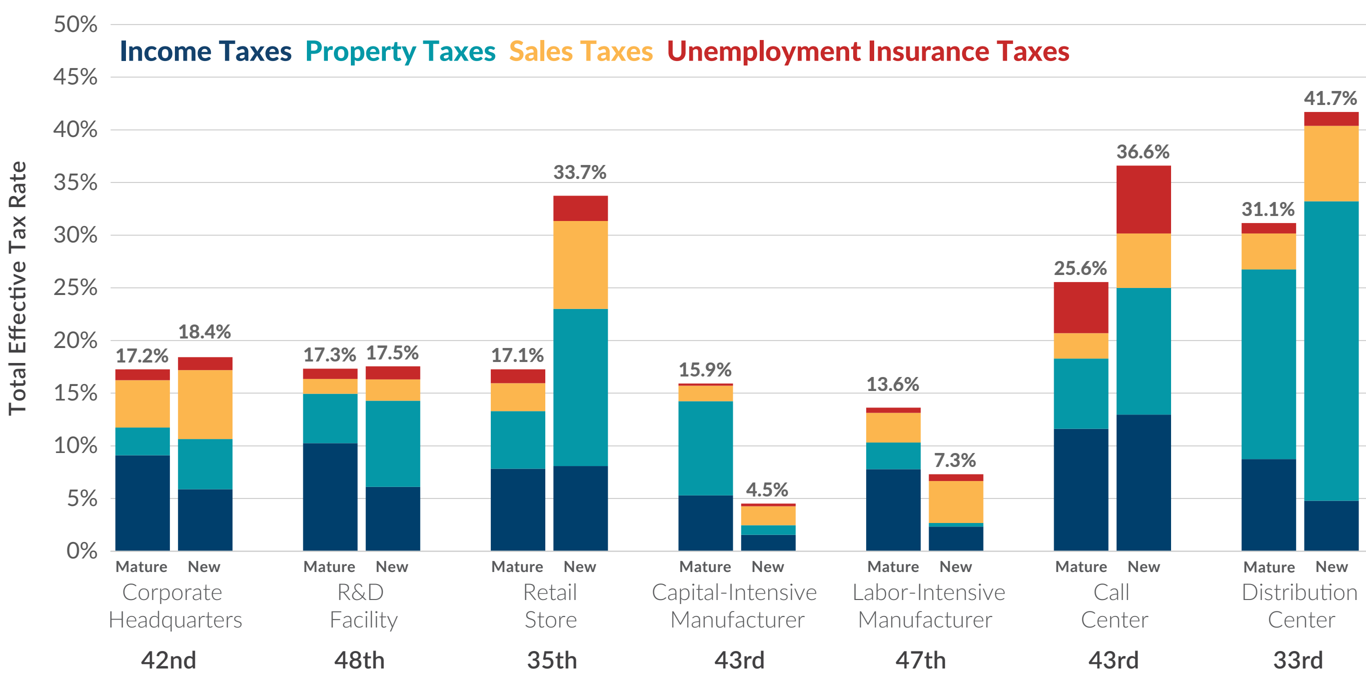
The mature research and development (R&D) facility ranks 48th with an effective tax rate of 17.3 percent, due to a high income tax burden, moderate unemployment insurance, sales, and property tax burdens, and a lack of R&D tax incentives.

West Virginia ranks 47th for mature labor-intensive and 43rd for mature capital-intensive manufacturing. The main factor in the high tax costs on these operations is high income tax burdens due to the state's apportionment factor, though gross receipts taxes and an overly broad property tax base that includes equipment also contribute. Although the state's property tax base also includes inventory, there is an exemption for manufacturing inventory, and manufacturing machinery is exempt from the sales tax as well.

New manufacturing firms fare significantly better due to the state's above-average investment tax credit and a generous property tax abatement for new firms, which eliminates almost all property taxes for ten years.

Top Tax Rates

Corporate Income	6.5%
Individual Income	6.5%
State Sales	6.0%
Avg. Local Sales	0.07%



Wisconsin

Wisconsin's high 7.9 percent corporate income tax is subject to single sales factor apportionment and a throwback rule. Service income is sourced where the benefits are received.

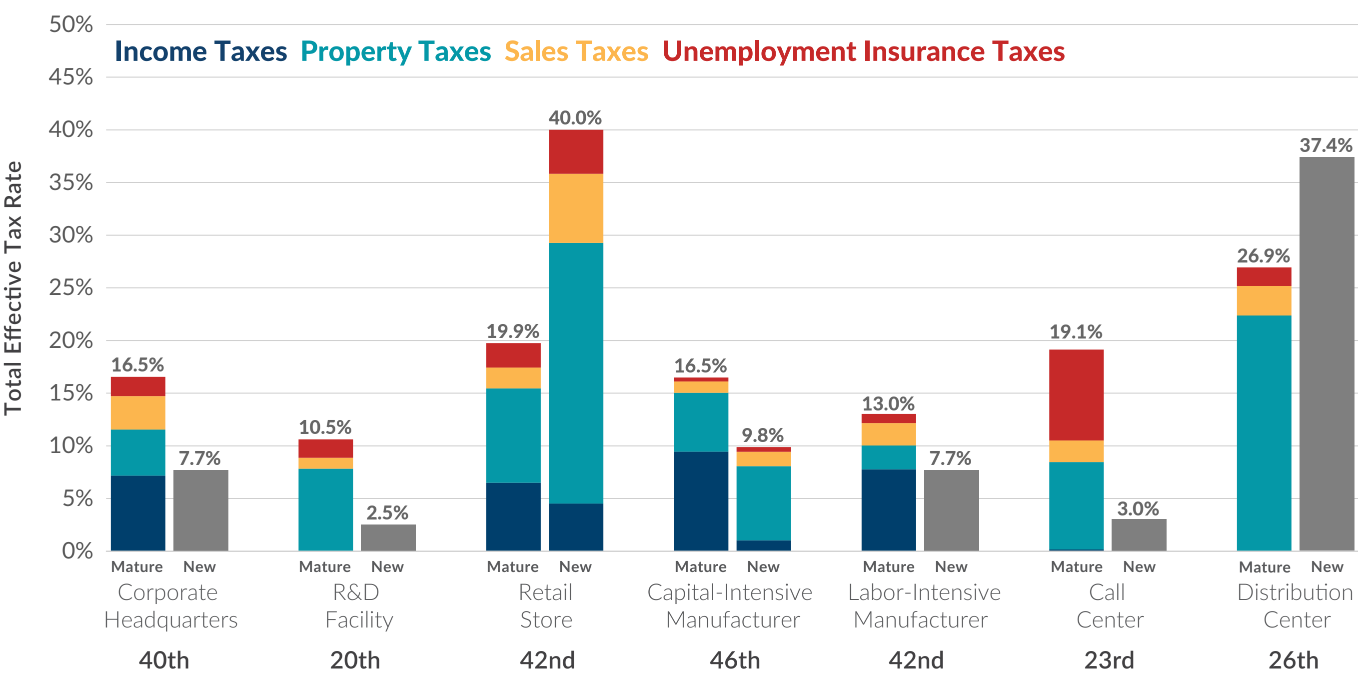
Wisconsin ranks 46th for mature capital-intensive manufacturing with a 16.5 percent effective tax rate. The main factor is the nation's fifth highest corporate income tax burden for this firm type, in large part due to a throwback rule which exposes all of the operation's income to in-state taxation and the disallowance of the state's manufacturing deduction for mature firms. Manufacturing, distribution, and research and development (R&D) facilities are also impacted by a property tax base that extends to equipment and inventory. Since our last edition, Wisconsin repealed an economic development tax credit for capital investment, which had the greatest impact on new manufacturing operations.

Wisconsin ranks 20th for mature R&D facilities with an effective tax burden of 10.5 percent. The operation experiences a low income tax burden due to R&D tax incentives and sourcing rules that place much of the operation's income where the benefits are received. This operation also faces a low sales tax burden.

Generous job creation and withholding tax credits benefit new firms, contributing to particularly light tax burdens for new call centers and corporate headquarters. Incentives for R&D facilities also benefit those new firms.

Top Tax Rates

Corporate Income	7.9%
Individual Income	7.65%
State Sales	5.0%
Avg. Local Sales	0.43%



Gray bars indicate that tax type breakdowns are unavailable due to negative effective tax rates for one or more tax types.

Wyoming

Wyoming ranks first overall for three mature firm types and in the top eight for all seven, due to its lack of a corporate income tax and low sales and property taxes. Specifically, it ranks first in the nation for mature labor-intensive manufacturing, distribution centers, and corporate headquarters. The state focuses more on low statutory tax rates than targeted incentives, hence its better rankings for mature operations than for new firms and the advantages it offers to firms with longer time horizons.

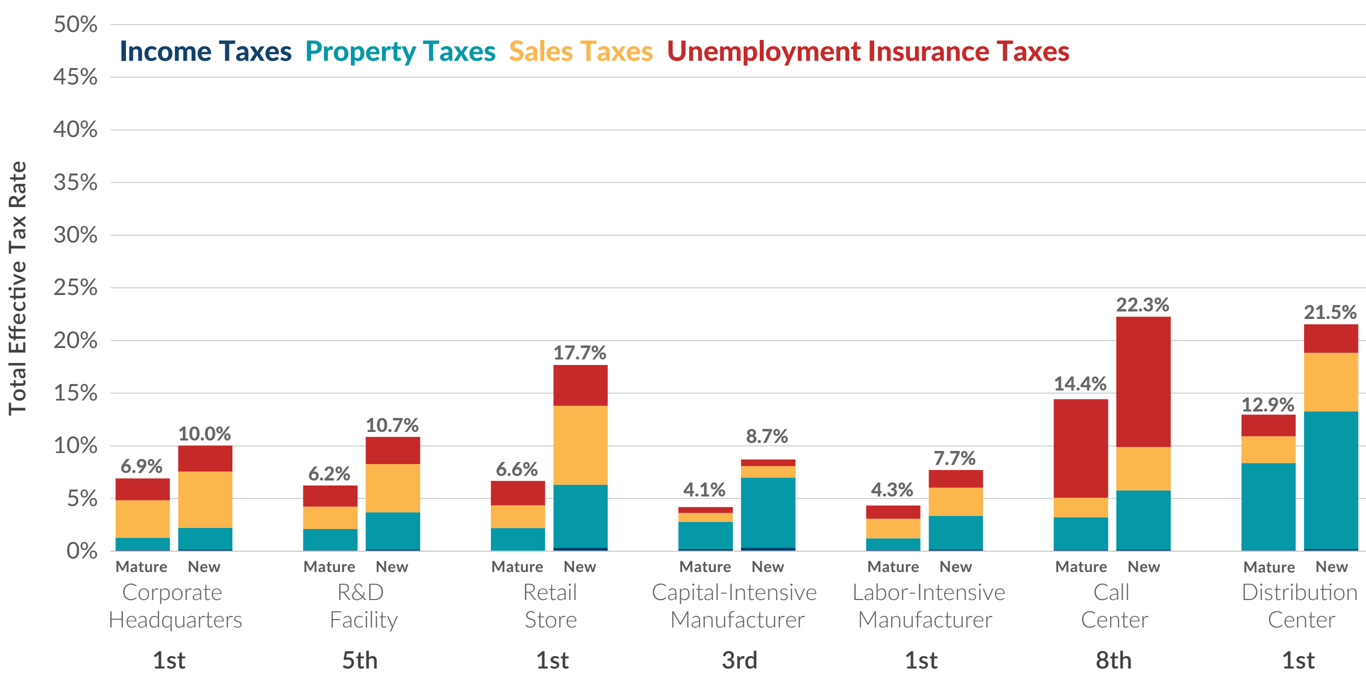
Wyoming's property tax is generally low, but does apply to equipment as well as to land and buildings. Wyoming is also one of the few states that does not offer a property tax abatement for new firms. Nevertheless, the mature capital-intensive manufacturing operation ranks third with an effective tax rate of 4.1 percent due to the second lowest income tax burden in the nation and modest sales and property taxes, and despite a high unemployment insurance tax burden.

The new capital-intensive manufacturing firm experiences roughly average tax burdens for its type as a result of middle-of-the-pack income tax burdens—Wyoming does not impose a corporate income tax, whereas some states which do offer such generous incentives as to actually produce a negative effective income tax rate—and above-average property tax burdens due to a lack of incentives available in other states, along with high unemployment insurance taxes. Manufacturing machinery is exempt from the sales tax, which does tend to benefit newly established operations.

The mature research and development (R&D) facility and call center have the first and second lowest property tax burdens in the nation for their firm types, respectively, with total tax costs 48 and 52 percent below the median rates for each firm type nationwide. However, R&D equipment is subject to sales tax in Wyoming, and new R&D operations receive no incentives.

Top Tax Rates

Corporate Income	—
Individual Income	—
State Sales	4.0%
Avg. Local Sales	1.49%



District of Columbia

The District of Columbia is a unique state-local entity, which presents particular challenges. We do not include the District in our rankings of states, but the model does calculate the city's effective tax rates for Tier One firms—the corporate headquarters, research and development (R&D) facility, and retail store—and on this page we include the rank that the District of Columbia would have were it a state. Tier Two firm types are not considered for DC in this study.

The District of Columbia has above-average tax burdens for all mature firm types. The lowest tax burden is for the corporate headquarters with an effective tax rank of 14.9 percent, which would rank 34th in the nation. The mature R&D facility experiences a 17.9 percent effective tax rate (49th), while the mature retail store experience an 18.4 percent effective rate (37th).

The new R&D facility experiences the highest effective tax burden in the nation due to the District's high corporate income tax rate and high property taxes. The other firms in our study experience high burdens in these tax categories as well.

The District does not offer any significant tax incentives and imposes a high corporate income tax with throwback rules and sourcing rules which emphasize the location of income-producing activity. The District also employs double-weighted sales factor apportionment. However, DC is in the midst of implementing a tax reform package which lowers both the corporate and individual income tax rates and should provide some improvement on rankings in future studies.

* Since the snapshot date for our study, the District of Columbia's corporate income tax has declined to 9.4 percent as part of a tax reform package adopted in 2014.

Top Tax Rates

Corporate Income	9.75%*
Individual Income	8.95%
Sales	5.75%

Appendix A

Incentives for Newly Established Operations

Investment

State	Incentive Value	Corporate Headquarters	Research & Development	Retail Store	Capital-Intensive Manufacturer	Labor-Intensive Manufacturer	Call Center	Distribution Center
Alabama	5% of eligible capital investment x 20 years	✓	✓		✓	✓	✓	✓
Alaska	n/a							
Arizona	n/a							
Arkansas	10% of eligible capital investment	✓			✓	✓	✓	✓
California	n/a							
Colorado	1% of eligible capital investment to $1,000 max.	✓	✓		✓	✓	✓	✓
Connecticut	5% of eligible capital investment	✓	✓		✓	✓	✓	✓
Delaware	0.5% of eligible capital investment x 10 years	✓	✓		✓	✓	✓	✓
Florida	5% of eligible capital investment x 20 years				✓	✓		
Georgia	n/a							
Hawaii	4% of depreciable equipment excise tax refund	✓	✓	✓	✓	✓	✓	✓
Idaho	3% of eligible capital investment	✓	✓	✓	✓	✓	✓	✓
Illinois	1% of eligible capital investment				✓	✓		
Indiana	10% of eligible capital investment	✓	✓	✓	✓	✓	✓	✓
Iowa	Varies from 5-10% of eligible capital investment	✓	✓		✓	✓	✓	✓
Kansas	10% of eligible capital investment over $1,000,000	✓			✓	✓		
Kentucky	Sales tax exemption for machinery for new firms				✓	✓		
Louisiana	n/a							
Maine	10% of eligible capital investment up to $3.5m over 7 years				✓	✓		
	Up to 100% on computers for high tech firms		✓					
Maryland	n/a							
Massachusetts	Varies from 3-40% of eligible capital investment	✓	✓		✓	✓	✓	✓
Michigan	n/a							
Minnesota	n/a							
Mississippi	5% of eligible capital investment if in business >2 years				✓	✓		
Missouri	n/a							
Montana	n/a							
Nebraska	Varies from 10-15% of eligible capital investment, plus partial refund of sales tax paid	✓	✓		✓	✓	✓	✓
Nevada	n/a							
New Hampshire	n/a							
New Jersey	n/a							
New Mexico	5.125% of capital investment up to $500,000 per job				✓	✓		
New York	2% of eligible capital investment		✓		✓	✓		
North Carolina	n/a							
North Dakota	Sales tax exemption for machinery for new firms				✓	✓		
Ohio	n/a							
Oklahoma	2% of eligible capital investment x 5 years				✓	✓		
Oregon	n/a							
Pennsylvania	n/a							
Rhode Island	Varies from 4-10% of eligible capital investment	✓	✓		✓	✓	✓	
South Carolina	n/a							
South Dakota	n/a							
Tennessee	Varies from 1-3% of eligible capital investment				✓	✓		
Texas	n/a							
Utah	n/a							
Vermont	n/a							
Virginia	n/a							
Washington	n/a							
West Virginia	2% of eligible capital investment x 10 years	✓	✓		✓	✓		✓
Wisconsin	5% of eligible R&D facility capital investment		✓					
Wyoming	n/a							
DC	n/a							

Job Creation

State	Incentive Value	Corporate Headquarters	Research & Development	Retail Store	Capital-Intensive Manufacturer	Labor-Intensive Manufacturer	Call Center	Distribution Center
Alabama	$1,000 per new job if firm has 50 employees or fewer		✓					
Alaska	n/a							
Arizona	$3,000 per new job (max. 400) x 3 years	✓	✓		✓	✓	✓	✓
Arkansas	1% of new payroll x 5 years	✓	✓		✓	✓	✓	✓
California	n/a							
Colorado	3.725% of new payroll x 1 year	✓	✓		✓	✓	✓	✓
Connecticut	n/a							
Delaware	$500 per new job x 10 years	✓	✓		✓	✓	✓	✓
Florida	Varies from $3,000-4,000 per new job over 4 years	✓	✓		✓	✓		
Georgia	Varies from $1,250-4,000 per new job x 5 years	✓	✓		✓	✓	✓	✓
Hawaii	n/a							
Idaho	$1,000 per new job to max. 3.25% of net income	✓	✓			✓	✓	
Illinois	n/a							
Indiana	n/a							
Iowa	6% of wages (to max. $24,500) for new jobs	✓	✓		✓	✓	✓	✓
Kansas	n/a							
Kentucky	n/a							
Louisiana	$100 per new job x 1 year						✓	
Maine	n/a							
Maryland	$1,000 per new job over 2 years	✓			✓	✓	✓	✓
Massachusetts	2.65% of new payroll x 1 year		✓					
Michigan	n/a							
Minnesota	n/a							
Mississippi	2.5% of new payroll x 5 years	✓	✓		✓	✓	✓	✓
Missouri	Varies from 3-7% of new payroll x 5 years	✓	✓		✓	✓		
Montana	1% of new payroll x 3 years				✓	✓		
Nebraska	Varies from 3-6% of new payroll x 7 years	✓	✓		✓	✓	✓	✓
Nevada	n/a							
New Hampshire	n/a							
New Jersey	$5,000 per new job x 10 years	✓	✓		✓	✓	✓	✓
New Mexico	10% per new job with wages >$40,000 x 4 years	✓	✓	✓	✓	✓	✓	✓
New York	5% of new payroll x 10 years		✓		✓	✓		
North Carolina	n/a							
North Dakota	1% of new payroll x 3 years, then 0.5% x 2 years				✓	✓		
Ohio	n/a							
Oklahoma	n/a							
Oregon	n/a							
Pennsylvania	$1,000 per new job	✓	✓	✓	✓	✓	✓	✓
Rhode Island	Corporate income tax rate reduction up to 6% based on number of new jobs created	✓	✓		✓	✓	✓	
South Carolina	Varies from $1,500-2,750 per new job	✓	✓		✓	✓	✓	✓
South Dakota	n/a							
Tennessee	$4,500 per new job	✓	✓		✓	✓	✓	✓
Texas	n/a							
Utah	Income and sales tax refunds of 25% x 5 years	✓	✓		✓	✓	✓	✓
Vermont	n/a							
Virginia	$1,000 per new job over 2 years	✓			✓	✓	✓	✓
Washington	n/a							
West Virginia	n/a							
Wisconsin	$6,000 per new job	✓	✓		✓	✓	✓	✓
Wyoming	n/a							
DC	n/a							

Withholdings

State	Incentive Value	Corporate Headquarters	Research & Development	Retail Store	Capital-Intensive Manufacturer	Labor-Intensive Manufacturer	Call Center	Distribution Center
Alabama	n/a							
Alaska	n/a							
Arizona	n/a							
Arkansas	3.9% of new payroll x 7 years	✓	✓		✓	✓	✓	✓
California	n/a							
Colorado	n/a							
Connecticut	60% of withholdings as an income tax credit x 5 years	✓	✓	✓	✓	✓	✓	✓
Delaware	n/a							
Florida	n/a							
Georgia	Partial refundability of job tax credits	✓	✓		✓	✓	✓	✓
Hawaii	n/a							
Idaho	n/a							
Illinois	3% of new payroll as an income tax credit x 10 years	✓	✓		✓	✓	✓	✓
Indiana	3% of new payroll x 7 years	✓	✓		✓	✓	✓	✓
Iowa	n/a							
Kansas	4.1-4.2% of new payroll x 10 years	✓	✓		✓	✓		
Kentucky	4% of new wages or $2,000 per new job x 10 years	✓	✓		✓	✓	✓	✓
Louisiana	Varies from 5-6% of new payroll x 10 years	✓	✓		✓	✓		✓
Maine	0.6% of new payroll x 5 years	✓	✓	✓			✓	✓
Maryland	n/a							
Massachusetts	n/a							
Michigan	n/a							
Minnesota	n/a							
Mississippi	4% of new payroll x 5 years, with 1 year lag	✓	✓		✓	✓	✓	✓
Missouri	n/a							
Montana	n/a							
Nebraska	n/a							
Nevada	n/a							
New Hampshire	n/a							
New Jersey	n/a							
New Mexico	n/a							
New York	n/a							
North Carolina	3.5% of new payroll x 8 years	✓				✓		
North Dakota	n/a							
Ohio	1.925% of new payroll x 8 years	✓	✓		✓	✓	✓	✓
Oklahoma	5% of new payroll x 8 years	✓	✓		✓	✓	✓	✓
Oregon	n/a							
Pennsylvania	n/a							
Rhode Island	n/a							
South Carolina	Varies from 1.5-3.75% of new payroll x 10 years	✓	✓		✓	✓	✓	✓
South Dakota	n/a							
Tennessee	n/a							
Texas	n/a							
Utah	1.25% of new payroll x 5 years	✓	✓		✓	✓	✓	✓
Vermont	20% of new payroll over 5 years	✓	✓	✓	✓	✓	✓	✓
Virginia	n/a							
Washington	n/a							
West Virginia	n/a							
Wisconsin	5% of payroll x 10 years	✓	✓		✓	✓	✓	✓
Wyoming	n/a							
DC	n/a							

Research & Development

State	Incentive Value	Corporate Headquarters	Research & Development	Retail Store	Capital-Intensive Manufacturer	Labor-Intensive Manufacturer	Call Center	Distribution Center
Alabama	n/a							
Alaska	n/a							
Arizona	24% of in-state R&D expenses per federal concepts		✓					
Arkansas	20% of incremental in-state R&D expenses		✓					
California	15% of in-state R&D expenses per federal concepts		✓					
Colorado	n/a							
Connecticut	20% of incremental, 6% of actual in-state R&D expenses		✓					
Delaware	10% of in-state R&D expenses per federal concepts		✓					
Florida	n/a							
Georgia	10% of in-state R&D expenses per federal concepts		✓					
Hawaii	20% of in-state R&D expenses per federal concepts, refundable		✓					
Idaho	5% of in-state R&D expenses per federal concepts		✓					
Illinois	6.5% of in-state R&D expenses per federal concepts		✓					
Indiana	10-15% of in-state R&D expenses per federal concepts		✓					
Iowa	6.5% of in-state R&D expenses per federal concepts, refundable		✓					
Kansas	6.5% of in-state incremental R&D expenses		✓					
Kentucky	5% of capital costs for research facilities		✓					
Louisiana	20% of in-state R&D expenses per federal concepts, refundable		✓					
Maine	5% of in-state R&D expenses per federal concepts		✓					
Maryland	3% of in-state incremental R&D expenses		✓					
Massachusetts	10% of in-state R&D expenses per federal concepts		✓					
Michigan	n/a							
Minnesota	10% of in-state R&D expenses per federal concepts		✓					
Mississippi	$1,000 per new job requiring R&D skills x 5 years		✓					
Missouri	n/a							
Montana	5-year tax exemption for new R&D facility income		✓					
Nebraska	15% of in-state R&D expenses per federal concepts x 5 years, refundable		✓					
Nevada	n/a							
New Hampshire	10% of in-state R&D wages only, per federal concepts		✓					
New Jersey	10% of in-state R&D expenses per federal concepts		✓					
New Mexico	4-8% of in-state actual R&D expenses		✓					
New York	10% of in-state R&D expenses per federal concepts, refundable		✓					
North Carolina	1.25% of in-state actual R&D expenses		✓					
North Dakota	8-25% of in-state R&D expenses per federal concepts		✓					
Ohio	7% of in-state R&D expenses per federal concepts		✓					
Oklahoma	n/a							
Oregon	5% of in-state R&D expenses per federal concepts		✓					
Pennsylvania	10% of in-state incremental R&D expenses		✓					
Rhode Island	16.9-22.5% of in-state R&D expenses per federal concepts		✓					
South Carolina	5% of in-state R&D expenses per federal concepts		✓					
South Dakota	n/a							
Tennessee	n/a							
Texas	5% of in-state incremental R&D expenses		✓					
Utah	5% of incremental, 7.5% of actual in-state R&D expenses		✓					
Vermont	30% of the federal credit for in-state R&D activities		✓					
Virginia	n/a							
Washington	1.5% of actual in-state R&D costs (select industries)		✓					
West Virginia	n/a							
Wisconsin	5% of in-state R&D expenses per federal concepts		✓					
Wyoming	n/a							
DC	n/a							

Property Tax

State	Incentive Value	Corporate Headquarters	Research & Development	Retail Store	Capital-Intensive Manufacturer	Labor-Intensive Manufacturer	Call Center	Distribution Center
Alabama	73% abatement x 10 years	✓	✓		✓	✓		
Alaska	100% abatement x 5 years	✓	✓	✓	✓	✓		✓
Arizona	n/a							
Arkansas	65% abatement x 15 years				✓	✓		
California	n/a							
Colorado	17.5% abatement x 10 years	✓	✓		✓	✓	✓	✓
Connecticut	80% or 100% (for manufacturing machinery) abatement x 5 years				✓	✓		
Delaware	50% abatement x 5 years				✓	✓		✓
Florida	n/a							
Georgia	50% abatement x 10 years + freeport for manufacturing inventory	✓	✓		✓	✓	✓	✓
Hawaii	n/a							
Idaho	100% abatement x 5 years				✓	✓		
Illinois	60% abatement x 10 years				✓	✓		✓
Indiana	100% abatement x 1 year + 10-year phase-in	✓	✓	✓	✓	✓	✓	✓
Iowa	100% abatement x 3 years, except land				✓	✓		✓
Kansas	60% abatement x 10 years				✓	✓		
Kentucky	n/a							
Louisiana	100% abatement x 10 years for manufacturing buildings and machinery				✓	✓		
	Refundable tax credit for property tax on inventory			✓	✓	✓		✓
Maine	90% abatement on all equipment x 12 years	✓	✓	✓	✓	✓	✓	✓
Maryland	Local exemption of manufacturing inventory				✓	✓		
	50% abatement x 1 year + 3-year phase-in	✓	✓					
Massachusetts	10% abatement x 5 years	✓	✓		✓	✓	✓	✓
Michigan	50% abatement x 12 years				✓	✓		
Minnesota	50% abatement x 10 years to max. $200,000/year				✓	✓		✓
Mississippi	60% abatement x 10 years	✓	✓		✓	✓	✓	✓
	$10,000 credit for taxes paid on inventory			✓	✓	✓		✓
Missouri	60% abatement x 10 years	✓	✓		✓	✓		✓
Montana	50% abatement x 5 years + 5-year phase-in	✓	✓		✓	✓	✓	✓
Nebraska	100% abatement x 10 years	✓			✓	✓	✓	✓
Nevada	n/a							
New Hampshire	n/a							
New Jersey	66% abatement x 1 year + 5-year phase-in				✓	✓		
New Mexico	100% abatement x 20 years on equipment	✓	✓	✓	✓	✓	✓	✓
New York	20.5% abatement x 1 year + 10-year phase-in				✓	✓		✓
North Carolina	50% abatement x 5 years, except land	✓	✓		✓	✓	✓	✓
North Dakota	100% abatement x 5 years				✓	✓		✓
Ohio	75% abatement x 10 years on real property				✓	✓		✓
Oklahoma	100% x 5 years on machinery + inventory freeport				✓	✓		✓
Oregon	15-year phase-out exemption for property >$100M				✓			
Pennsylvania	n/a							
Rhode Island	50% abatement x 1 year + 10-year phase-in				✓	✓		✓
South Carolina	45% abatement x 20 years				✓	✓		
South Dakota	80% abatement x 1 year + 4-year phase-in, except land				✓	✓		
Tennessee	50% abatement x 10 years				✓	✓		✓
Texas	Abate 15% x 10 years + freeport on inventory				✓	✓		✓
Utah	50% abatement x 10 years	✓	✓		✓	✓	✓	✓
Vermont	100% abatement x 5 years, except land	✓	✓	✓	✓	✓	✓	✓
Virginia	n/a							
Washington	n/a							
West Virginia	95% abatement x 10 years				✓	✓		
	Tax credit for prop. tax on manufacturer inventory				✓	✓		
Wisconsin	State tax exemption for mfg. machinery				✓	✓		
Wyoming	n/a							
DC	n/a							

Appendix B

Tax Comparison Tables

Corporate Income Tax

			Apportionment						
State	Rate	Applies	Prop.	Payroll	Sales	Alternative	TB	Services	Adj.
Alabama	6.50%	-	25.00%	25.00%	50.00%	n/a	Yes	IPA	1,4,7
Alaska	9.40%	$222,000	33.30%	33.30%	33.30%	n/a	Yes	IPA	1
Arizona	6.50%	-	7.50%	7.50%	85.00%	25/25/50%	No	IPA	1
Arkansas	6.50%	$100,000	25.00%	25.00%	50.00%	n/a	Yes	IPA	3
California	8.84%	-	0.00%	0.00%	100.00%	n/a	Yes	Benefits	3
Colorado	4.63%	-	0.00%	0.00%	100.00%	n/a	Yes	IPA	1
Connecticut	9.00%	-	0.00%	0.00%	100.00%	25/25/50% *	No	IPA	3
Delaware	8.70%	-	33.30%	33.30%	33.30%	n/a	No	IPA	1
Florida	5.50%	$50,000	25.00%	25.00%	50.00%	n/a	No	Benefits	1
Georgia	6.00%	-	0.00%	0.00%	100%	n/a	No	Benefits	3,6
Hawaii	6.40%	$100,000	33.30%	33.30%	33.30%	n/a	Yes	IPA	3
Idaho	7.40%	-	25.00%	25.00%	50.00%	n/a	Yes	IPA	1
Illinois	9.50%	-	0.00%	0.00%	100.00%	n/a	Yes	IPA	1,7
Indiana	7.50%	-	0.00%	0.00%	100.00%	n/a	Yes	IPA	3
Iowa	12.00%	$250,000	0.00%	0.00%	100.00%	n/a	No	Benefits	1,5
Kansas	7.00%	$50,000	33.30%	33.30%	33.30%	n/a	Yes	IPA	1
Kentucky	6.00%	$100,000	25.00%	25.00%	50.00%	n/a	No	IPA	2
Louisiana	8.00%	$200,000	0.00%	50.00%	50.00%	0/0/100% *†	No	IPA	1,4
Maine	8.93%	$250,000	0.00%	0.00%	100.00%	n/a	Yes	Benefits	3
Maryland	8.25%	-	25.00%	25.00%	50.00%	0/0/100% †	No	Benefits	3
Massachusetts	8.00%	-	25.00%	25.00%	50.00%	0/0/100% †	Yes	IPA	3,7
Michigan	6.00%	-	0.00%	0.00%	100.00%	n/a	No	Benefits	3
Minnesota	9.80%	-	0.00%	0.00%	100.00%	n/a	No	Benefits	3
Mississippi	5.00%	$10,000	0.00%	0.00%	100.00%	33.3% each †	Yes	IPA	3
Missouri	6.25%	-	33.30%	33.30%	33.30%	0/0/100%	No	IPA	1,5
Montana	6.75%	-	33.30%	33.30%	33.30%	n/a	Yes	IPA	1
Nebraska	7.81%	$100,000	0.00%	0.00%	100.00%	n/a	No	Benefits	1,6
Nevada	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	3
New Hampshire	8.50%	-	25.00%	25.00%	50.00%	n/a	Yes	IPA	3
New Jersey	9.00%	$100,000	0.00%	0.00%	100.00%	n/a	No	IPA	1
New Mexico	7.30%	$1,000,000	33.30%	33.30%	33.30%	25/25/50% ‡	No	IPA	1,6
New York	7.10%	-	0.00%	0.00%	100%	n/a	No	IPA	3,8
North Carolina	6.00%	-	25.00%	25.00%	50.00%	n/a	No	IPA	3
North Dakota	4.53%	$50,000	33.30%	33.30%	33.30%	n/a	Yes	IPA	3
Ohio	n/a	-	0.00%	0.00%	100.00%	n/a	No	Benefits	1,6
Oklahoma	6.00%	-	33.30%	33.30%	33.30%	25/25/50% ‖	Yes	Benefits	1
Oregon	7.60%	$10,000,000	0.00%	0.00%	100.00%	n/a	Yes	IPA	3
Pennsylvania	9.99%	-	0.00%	0.00%	100.00%	n/a	No	Benefits	1
Rhode Island	9.00%	-	33.30%	33.30%	33.30%	25/25/50% ‡	Yes	IPA	3
South Carolina	5.00%	-	0.00%	0.00%	100.00%	n/a	No	IPA	3
South Dakota	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	3
Tennessee	6.50%	-	25.00%	25.00%	50.00%	n/a	No	IPA	3
Texas	0.98%	-	0.00%	0.00%	100.00%	n/a	No	IPA	9
Utah	5.00%	-	0.00%	0.00%	100.00%	25/25/50% §	Yes	Benefits	1
Vermont	8.50%	$25,000	25.00%	25.00%	50.00%	n/a	Yes	IPA	1
Virginia	6.00%	-	25.00%	25.00%	50.00%	0/0/100% ‡	No	IPA	1
Washington	n/a	-	0.00%	0.00%	100.00%	n/a	Yes	Benefits	3
West Virginia	6.50%	-	25.00%	25.00%	50.00%	n/a	Yes	IPA	3
Wisconsin	7.90%	-	0.00%	0.00%	100.00%	n/a	Yes	Benefits	3
Wyoming	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	3
DC	9.98%	-	25.00%	25.00%	50.00%	n/a	Yes	IPA	3

IPA=income-producing activity, 1=s.199 deduction allowed, 2=s.199 partial deduction allowed, 3=s.199 deduction disallowed, 4=100% deduction for federal tax paid, 5=50% deduction for federal tax paid, 6=deduction allowed for in-state tax paid, 7=throwout rule applies to service receipts, 8=0% tax rate applies to manufacturing, 9=Texas franchise tax on taxable margin with 0.4875% rate for retail and wholesale
* Retail † Manufacturing ‡ Optional manufacturing § Manufacturing & Logistics || Investment >$200M

Sales & Property Tax

	Sales Tax		Property Tax			
State	Main Rate	Mfg. Mach.	Land	Buildings	Equipment	Inventory
Alabama						
... Birmingham	9.500%	3.875%	1.133%	1.133%	1.133%	-
... Montgomery	10.000%	3.583%	0.655%	0.655%	0.655%	-
Alaska						
... Anchorage	-	-	1.237%	1.237%	1.237%	0.763%
... Fairbanks	-	-	1.748%	1.748%	–	–
Arizona						
... Phoenix	8.300%	-	2.073%	2.073%	2.073%	-
... Prescott	8.350%	-	1.446%	1.446%	1.446%	-
Arkansas						
... Little Rock	9.000%	9.000% *	1.237%	1.237%	1.237%	1.237%
... Fort Smith	9.750%	9.750% *	1.033%	1.033%	1.033%	1.033%
California						
... Los Angeles	9.000%	4.8125%	1.100%	1.100%	1.100%	-
... Merced	7.500%	3.3125%	1.100%	1.100%	1.100%	-
Colorado						
... Denver	7.620%	-	2.689%	2.689%	2.689%	-
... Fort Collins	7.350%	-	2.757%	2.757%	2.757%	-
Connecticut						
... Hartford	6.350%	-	2.587%	2.587%	2.587%	-
... Norwich	6.350%	-	1.916%	1.916%	1.916%	-
Delaware						
... Wilmington	-	-	3.576%	3.576%	-	-
... Dover	-	-	2.006%	2.006%	-	-
District of Columbia						
... Washington	5.750%	5.750%	1.850%	1.850%	3.400%	-
... n/a	n/a	n/a	n/a	n/a	n/a	n/a
Florida						
... Miami	7.000%	-	2.265%	2.265%	2.265%	-
... Gainesville	6.000%	-	2.269%	2.269%	2.269%	-
Georgia						
... Atlanta	7.250%	-	1.716%	1.716%	1.716%	1.706%
... Macon	7.000%	-	1.459%	1.459%	1.459%	1.459%
Hawaii						
... Honolulu	4.500%	4.500%	1.240%	1.240%	-	-
... Hilo	4.500%	4.500%	1.005%	1.005%	-	-
Idaho						
... Boise	6.000%	-	1.656%	1.656%	1.656%	-
... Coeur D'Alene	6.000%	-	1.400%	1.400%	1.400%	-
Illinois						
... Chicago	9.250%	-	2.478%	2.478%	-	-
... Springfield	9.000%	-	2.453%	2.453%	-	-
Indiana						
... Indianapolis	7.000%	-	1.311%	1.311%	1.311%	-
... Elkhart	7.000%	-	3.180%	3.180%	3.180%	-
Iowa						
... Des Moines	6.000%	-	4.252%	4.252%	-	-
... Cedar Rapids	7.000%	-	3.511%	3.511%	-	-
Kansas						
... Wichita	7.150%	-	3.015%	3.015%	-	-
... Topeka	8.800%	-	3.001%	3.001%	-	-
Kentucky						
... Louisville	6.000%	6.000% †	1.096%	1.096%	0.995%	0.958%
... Lexington	6.000%	6.000% †	1.164%	1.164%	0.743%	0.358%
Louisiana						
... New Orleans	9.000%	-	1.282%	1.922%	1.922%	1.922%
... Shreveport	8.600%	-	1.477%	2.216%	2.216%	2.216%
Maine						
... Portland	5.500%	-	1.937%	1.937%	1.937%	-
... Bangor	5.500%	-	1.928%	1.928%	1.928%	-
Maryland						
... Baltimore	6.000%	-	1.635%	1.635%	4.087%	-
... Salisbury	6.000%	-	1.351%	1.351%	3.242%	1.297%

Sales & Property Tax *Continued*

	Sales Tax		Property Tax			
State	Main Rate	Mfg. Mach.	Land	Buildings	Equipment	Inventory
Massachusetts						
... Boston	6.250%	-	3.118%	3.118%	3.118%	-
... Worcester	6.250%	-	3.083%	3.083%	3.083%	-
Michigan						
... Detroit	6.000%	-	3.222%	3.222%	2.622%	-
... Saginaw	6.000%	-	2.463%	2.463%	1.863%	-
Minnesota						
... Minneapolis	7.775%	- ‡	4.183%	4.183%	-	-
... Rochester	7.625%	- ‡	3.380%	3.380%	-	-
Mississippi						
... Jackson	8.000%	1.500%	2.021%	2.021%	2.021%	2.021%
... Gulfport	7.000%	1.500%	1.642%	1.642%	1.642%	1.642%
Missouri						
... St. Louis	8.679%	-	2.926%	2.926%	2.870%	-
... Joplin	7.900%	-	1.918%	1.918%	1.998%	-
Montana						
... Billings	-	-	1.649%	1.649%	2.003%	-
... Missoula	-	-	1.840%	1.840%	2.235%	-
Nebraska						
... Omaha	7.000%	-	1.856%	1.856%	1.856%	-
... Lincoln	7.000%	-	1.966%	1.966%	1.966%	-
Nevada						
... Las Vegas	8.100%	8.100%	1.097%	1.097%	1.097%	-
... Reno	7.725%	7.725%	1.323%	1.323%	1.323%	-
New Hampshire						
... Manchester	-	-	2.351%	2.351%	-	-
... Concord	-	-	2.530%	2.530%	-	-
New Jersey						
... Newark	7.000%	-	2.482%	2.482%	-	-
... Trenton	7.000%	-	3.778%	3.778%	-	-
New Mexico						
... Albuquerque	7.000%	7.000%	1.362%	1.362%	1.362%	-
... Santa Fe	8.187%	8.187%	0.934%	0.934%	0.934%	-
New York						
... New York	8.875%	-	3.034%	3.034%	-	-
... Utica	8.750%	-	3.198%	3.198%	-	-
North Carolina						
... Raleigh	6.750%	- §	0.924%	0.924%	0.924%	-
... Wilmington	7.000%	- §	1.004%	1.004%	1.004%	-
North Dakota						
... Fargo	7.500%	7.500% †	1.300%	1.300%	-	-
... Grand Forks	6.750%	6.750% †	1.839%	1.839%	-	-
Ohio						
... Cincinnati	6.750%	-	2.517%	2.517%	-	-
... Canton	6.500%	-	2.345%	2.345%	-	-
Oklahoma						
... Oklahoma City	8.375%	-	1.245%	1.245%	1.556%	1.556%
... Lawton	8.875%	-	0.993%	0.993%	0.993%	0.993%
Oregon						
... Portland	-	-	0.753%	0.753%	0.753%	-
... Salem	-	-	1.299%	1.299%	1.299%	-
Pennsylvania						
... Philadelphia	8.000%	-	1.340%	1.340%	-	-
... Reading	6.000%	-	3.862%	3.862%	-	-
Rhode Island						
... Providence	7.000%	-	2.921%	2.921%	4.312%	-
South Carolina						
... Columbia	7.250%	-	2.705%	2.705%	4.734%	-
... Spartanburg	6.000%	-	3.785%	3.785%	4.817%	-
South Dakota						
... Sioux Falls	6.000%	6.000%	1.702%	1.702%	-	-
... Rapid City	6.000%	6.000%	1.960%	1.960%	-	-
Tennessee						
... Nashville	9.500%	-	1.688%	1.688%	1.266%	-
... Clarksville	9.500%	-	1.504%	1.504%	1.128%	-

Sales & Property Tax *Continued*

State	Sales Tax		Property Tax			
	Main Rate	Mfg. Mach.	Land	Buildings	Equipment	Inventory
Texas						
... Dallas	8.250%	-	2.538%	2.538%	2.538%	2.538%
... Lubbock	8.250%	-	2.470%	2.470%	2.470%	2.470%
Utah						
... Salt Lake City	6.850%	-	1.591%	1.591%	1.591%	-
... St. George	6.250%	-	1.244%	1.244%	1.244%	-
Vermont						
... Burlington	7.000%	-	1.985%	1.985%	1.985%	-
... Rutland	7.000%	-	2.224%	2.224%	2.224%	-
Virginia						
... Richmond	5.300%	-	1.492%	1.492%	2.400%	-
... Roanoke	5.300%	-	1.090%	1.090%	3.000%	-
Washington						
... Seattle	9.500%	-	1.179%	1.179%	1.179%	-
... Spokane	8.700%	-	1.319%	1.319%	1.319%	-
West Virginia						
... Charleston	6.500%	-	1.571%	1.571%	1.571%	1.571%
... Parkersburg	6.000%	-	1.758%	1.758%	1.758%	1.758%
Wisconsin						
... Milwaukee	5.350%	-	2.600%	2.600%	2.600%	2.600%
... Eau Claire	5.500%	-	2.182%	2.182%	2.182%	2.182%
Wyoming						
... Cheyenne	6.000%	-	0.678%	0.678%	0.678%	-
... Casper	5.000%	-	0.820%	0.820%	0.820%	-

* Manufacturing machinery exempt from sales tax for new/expanded facilities or replacement equipment
† Manufacturing machinery exempt from sales tax only for new/expanded facilities
‡ Sales tax on manufacturing machinery is refundable
§ Subject to a nominal privilege tax in lieu of sales tax

Other Taxes

	Unemployment Ins.		Gross Receipts Tax			Other Taxes	
State	Rate	Max. Pay	Mfg.	Services	Retail	Local Inc.	State Cap.
Alabama							
... Birmingham	2.70%	$8,000	n/a	n/a	n/a	n/a	0.175%
... Montgomery			n/a	n/a	n/a	n/a	
Alaska							
... Anchorage	2.89%	$37,400	n/a	n/a	n/a	n/a	n/a
... Fairbanks			n/a	n/a	n/a	n/a	
Arizona							
... Phoenix	2.00%	$7,000	n/a	n/a	n/a	n/a	n/a
... Prescott			n/a	n/a	n/a	n/a	
Arkansas							
... Little Rock	4.00%	$12,000	n/a	n/a	n/a	n/a	0.300%
... Fort Smith			n/a	n/a	n/a	n/a	
California							
... Los Angeles	3.50%	$7,000	0.101%	0.356%	0.127%	n/a	n/a
... Merced			n/a	n/a	n/a	n/a	
Colorado							
... Denver	2.03%	$11,300	n/a	n/a	n/a	n/a	n/a
... Fort Collins			n/a	n/a	n/a	n/a	
Connecticut							
... Hartford	4.50%	$15,000	n/a	n/a	n/a	n/a	0.310%
... Norwich			n/a	n/a	n/a	n/a	
Delaware							
... Wilmington	2.80%	$10,500	0.189%	0.402%	.0754%	n/a	0.035%
... Dover			0.189%	0.402%	.0754%	n/a	
District of Columbia							
... Washington	2.70%	$9,000	n/a	n/a	n/a	n/a	n/a
Florida							
... Miami	2.70%	$8,000	n/a	n/a	n/a	n/a	n/a
... Gainesville			n/a	n/a	n/a	n/a	
Georgia							
... Atlanta	2.70%	$9,500	n/a	n/a	n/a	n/a	≤ $5,000
... Macon			n/a	n/a	n/a	n/a	
Hawaii							
... Honolulu	4.60%	$39,600	n/a	n/a	n/a	n/a	n/a
... Hilo			n/a	n/a	n/a	n/a	
Idaho							
... Boise	2.75%	$34,800	n/a	n/a	n/a	n/a	n/a
... Coeur D'Alene			n/a	n/a	n/a	n/a	
Illinois							
... Chicago	4.15%	$12,900	n/a	n/a	n/a	n/a	0.100%
... Springfield			n/a	n/a	n/a	n/a	
Indiana							
... Indianapolis	2.50%	$9,500	n/a	n/a	n/a	n/a	n/a
... Elkhart			n/a	n/a	n/a	n/a	
Iowa							
... Des Moines	1.10%	$26,000	n/a	n/a	n/a	n/a	n/a
... Cedar Rapids			n/a	n/a	n/a	n/a	
Kansas							
... Wichita	4.00%	$8,000	n/a	n/a	n/a	n/a	n/a
... Topeka			n/a	n/a	n/a	n/a	
Kentucky							
... Louisville	2.70%	$9,300	n/a	n/a	n/a	2.200%	n/a
... Lexington			n/a	n/a	n/a	2.750%	
Louisiana							
... New Orleans	1.94%	$7,700	n/a	0.100%	0.100%	n/a	0.150%
... Shreveport			n/a	0.100%	0.100%	n/a	
Maine							
... Portland	3.18%	$12,000	n/a	n/a	n/a	n/a	n/a
... Bangor			n/a	n/a	n/a	n/a	
Maryland							
... Baltimore	2.60%	$8,500	n/a	n/a	n/a	n/a	n/a
... Salisbury			n/a	n/a	n/a	n/a	
Massachusetts							
... Boston	3.91%	$14,000	n/a	n/a	n/a	n/a	0.260%
... Worcester			n/a	n/a	n/a	n/a	

Other Taxes *Continued*

	Unemployment Ins.		Gross Receipts Tax			Other Taxes	
State	Rate	Max. Pay	Mfg.	Services	Retail	Local Inc.	State Cap.
Michigan							
... Detroit	2.70%	$9,500	n/a	n/a	n/a	2.000%	n/a
... Saginaw			n/a	n/a	n/a	1.500%	
Minnesota							
... Minneapolis	3.52%	$29,000	n/a	n/a	n/a	n/a	0.025%
... Rochester			n/a	n/a	n/a	n/a	
Mississippi							
... Jackson	1.15%	$14,000	n/a	n/a	n/a	n/a	0.250%
... Gulfport			n/a	n/a	n/a	n/a	
Missouri							
... St. Louis	3.51%	$13,000	n/a	n/a	n/a	1.000%	0.013%
... Joplin			n/a	n/a	n/a	n/a	
Montana							
... Billings	2.18%	$27,900	n/a	n/a	n/a	n/a	n/a
... Missoula			n/a	n/a	n/a	n/a	
Nebraska							
... Omaha	1.68%	$9,000	n/a	n/a	n/a	n/a	0.150%
... Lincoln			n/a	n/a	n/a	n/a	
Nevada							
... Las Vegas	3.00%	$26,900	n/a	n/a	n/a	n/a	n/a
... Reno			n/a	n/a	n/a	n/a	
New Hampshire							
... Manchester	2.70%	$14,000	n/a	n/a	n/a	n/a	n/a
... Concord			n/a	n/a	n/a	n/a	
New Jersey							
... Newark	3.90%	$30,900	n/a	n/a	n/a	n/a	n/a
... Trenton			n/a	n/a	n/a	n/a	
New Mexico							
... Albuquerque	2.04%	$22,900	n/a	n/a	n/a	n/a	n/a
... Santa Fe			n/a	n/a	n/a	n/a	
New York							
... New York	4.10%	$8,500	n/a	n/a	n/a	8.850%	0.150%
... Utica			n/a	n/a	n/a	n/a	
North Carolina							
... Raleigh	1.20%	$20,900	n/a	n/a	n/a	n/a	0.150%
... Wilmington			n/a	n/a	n/a	n/a	
North Dakota							
... Fargo	1.25%	$31,800	n/a	n/a	n/a	n/a	n/a
... Grand Forks			n/a	n/a	n/a	n/a	
Ohio							
... Cincinnati	2.70%	$9,000	0.260%	0.260%	0.260%	2.100%	n/a
... Canton			0.260%	0.260%	0.260%	2.100%	
Oklahoma							
... Oklahoma City	2.00%	$20,100	n/a	n/a	n/a	n/a	0.125%
... Lawton			n/a	n/a	n/a	n/a	
Oregon							
... Portland	3.30%	$34,100	n/a	n/a	n/a	3.650%	n/a
... Salem			n/a	n/a	n/a	n/a	
Pennsylvania							
... Philadelphia	3.68%	$8,500	0.142%	0.142%	0.142%	6.450%	0.067%
... Reading			0.000%	0.225%	0.150%	n/a	
Rhode Island							
... Providence	3.34%	$20,200	n/a	n/a	n/a	n/a	0.025%
South Carolina							
... Columbia	2.01%	$12,000	n/a	n/a	n/a	n/a	0.100%
... Spartanburg			n/a	n/a	n/a	n/a	
South Dakota							
... Sioux Falls	1.75%	$13,000	n/a	n/a	n/a	n/a	n/a
... Rapid City			n/a	n/a	n/a	n/a	
Tennessee							
... Nashville	2.70%	$9,000	n/a	n/a	n/a	n/a	0.250%
... Clarksville			n/a	n/a	n/a	n/a	
Texas							
... Dallas	2.70%	$9,000	n/a	n/a	n/a	n/a	n/a
... Lubbock			n/a	n/a	n/a	n/a	

Other Taxes *Continued*

	Unemployment Ins.		Gross Receipts Tax			Other Taxes	
State	Rate	Max. Pay	Mfg.	Services	Retail	Local Inc.	State Cap.
Utah							
… Salt Lake City	1.70%	$30,300	n/a	n/a	n/a	n/a	n/a
… St. George			n/a	n/a	n/a	n/a	
Vermont							
… Burlington	1.00%	$16,000	n/a	n/a	n/a	n/a	n/a
… Rutland			n/a	n/a	n/a	n/a	
Virginia							
… Richmond	3.08%	$8,000	0.000%	0.360%	0.200%	n/a	n/a
… Roanoke			0.000%	0.360%	0.200%	n/a	
Washington							
… Seattle	1.86%	$39,800	0.699%	1.915%	0.686%	n/a	n/a
… Spokane			0.484%	1.500%	0.471%	n/a	
West Virginia							
… Charleston	2.70%	$12,000	0.300%	1.000%	0.500%	n/a	0.100%
… Parkersburg			0.200%	0.900%	0.400%	n/a	
Wisconsin							
… Milwaukee	4.10%	$14,000	n/a	n/a	n/a	n/a	n/a
… Eau Claire			n/a	n/a	n/a	n/a	
Wyoming							
… Cheyenne	2.76%	$23,800	n/a	n/a	n/a	n/a	0.020%
… Casper			n/a	n/a	n/a	n/a	

Appendix C

Component Tax Rates

Corporate Headquarters

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Alabama					
... Mature	5.7%	1.9%	4.7%	0.7%	13.0%
... New	2.8%	2.3%	7.4%	0.8%	13.3%
Alaska					
... Mature	5.8%	2.0%	0.0%	3.4%	11.2%
... New	5.7%	2.7%	0.0%	4.0%	12.4%
Arizona					
... Mature	4.4%	3.5%	4.1%	0.4%	12.4%
... New	3.8%	6.3%	6.4%	0.5%	17.0%
Arkansas					
... Mature	4.7%	2.1%	5.3%	1.5%	13.6%
... New	-4.7%	3.8%	8.0%	1.8%	8.9%
California					
... Mature	9.7%	1.8%	4.4%	0.8%	16.8%
... New	9.7%	3.3%	7.0%	0.9%	20.9%
Colorado					
... Mature	4.1%	4.5%	3.8%	0.7%	13.1%
... New	2.9%	7.5%	5.9%	0.9%	17.2%
Connecticut					
... Mature	7.8%	4.4%	4.7%	2.2%	19.0%
... New	5.0%	7.8%	6.8%	2.5%	22.1%
Delaware					
... Mature	7.2%	5.2%	0.0%	0.9%	13.3%
... New	4.9%	6.1%	0.0%	1.1%	12.2%
Florida					
... Mature	3.7%	3.8%	3.5%	0.7%	11.7%
... New	3.2%	6.2%	4.9%	0.7%	15.2%
Georgia					
... Mature	5.2%	2.9%	3.6%	0.8%	12.5%
... New	2.8%	4.1%	5.6%	1.0%	13.5%
Hawaii					
... Mature	3.4%	1.8%	3.8%	5.7%	14.6%
... New	2.5%	2.1%	5.3%	6.7%	16.6%
Idaho					
... Mature	4.9%	2.8%	3.0%	3.0%	13.7%
... New	3.6%	5.0%	4.6%	3.6%	16.9%
Illinois					
... Mature	8.5%	3.6%	4.6%	1.7%	18.3%
... New	0.8%	4.2%	7.2%	2.0%	14.3%
Indiana					
... Mature	6.4%	2.2%	3.5%	0.8%	12.8%
... New	-0.6%	2.9%	5.4%	0.9%	8.6%
Iowa					
... Mature	8.9%	6.2%	4.4%	0.9%	20.4%
... New	6.1%	7.3%	6.4%	1.1%	20.8%
Kansas					
... Mature	4.1%	4.4%	4.2%	1.0%	13.7%
... New	-7.7%	5.2%	6.4%	1.2%	5.0%
Kentucky					
... Mature	5.7%	1.8%	3.0%	0.8%	11.2%
... New	-1.6%	3.2%	4.6%	0.9%	7.1%
Louisiana					
... Mature	4.7%	3.2%	5.3%	0.5%	13.7%
... New	-9.2%	5.8%	8.0%	0.6%	5.2%
Maine					
... Mature	8.1%	3.3%	2.5%	1.2%	15.1%
... New	7.2%	3.6%	4.0%	1.4%	16.2%
Maryland					
... Mature	5.6%	3.3%	3.0%	0.7%	12.6%
... New	4.8%	7.5%	4.6%	0.8%	17.8%
Massachusetts					
... Mature	5.3%	5.3%	3.1%	1.7%	15.3%
... New	3.0%	9.2%	4.8%	2.1%	19.1%

Corporate Headquarters *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Michigan					
... Mature	7.0%	5.3%	3.0%	0.8%	16.0%
... New	6.5%	9.0%	4.6%	1.0%	21.1%
Minnesota					
... Mature	8.4%	6.1%	3.8%	3.3%	21.5%
... New	8.0%	7.2%	6.0%	3.8%	25.0%
Mississippi					
... Mature	5.4%	3.4%	4.7%	0.5%	14.1%
... New	-1.0%	4.5%	7.1%	0.6%	11.3%
Missouri					
... Mature	4.2%	4.9%	4.3%	1.4%	14.8%
... New	-4.8%	6.5%	6.7%	1.7%	10.2%
Montana					
... Mature	4.2%	2.9%	0.0%	1.9%	9.0%
... New	4.1%	4.4%	0.0%	2.3%	10.8%
Nebraska					
... Mature	6.7%	3.1%	4.1%	0.5%	14.5%
... New	-8.8%	0.5%	5.0%	2.5%	-0.8%
Nevada					
... Mature	2.2%	1.8%	4.0%	2.6%	10.6%
... New	2.6%	3.3%	6.3%	3.0%	15.2%
New Hampshire					
... Mature	7.4%	3.4%	0.0%	1.2%	12.0%
... New	7.6%	4.0%	0.0%	1.4%	13.1%
New Jersey					
... Mature	7.8%	3.6%	4.1%	3.8%	19.3%
... New	-11.5%	4.2%	6.2%	4.5%	3.6%
New Mexico					
... Mature	4.1%	2.3%	5.9%	1.5%	13.8%
... New	-3.6%	2.3%	8.3%	1.8%	8.8%
New York					
... Mature	14.6%	4.4%	5.3%	1.1%	25.3%
... New	13.9%	5.2%	7.9%	1.3%	28.3%
North Carolina					
... Mature	4.7%	1.6%	3.3%	0.8%	10.4%
... New	-1.7%	2.4%	5.2%	0.9%	6.9%
North Dakota					
... Mature	2.7%	1.9%	3.7%	1.3%	9.6%
... New	2.7%	2.2%	5.8%	1.5%	12.2%
Ohio					
... Mature	3.1%	3.6%	4.0%	0.8%	11.5%
... New	-0.5%	4.3%	6.0%	0.9%	10.8%
Oklahoma					
... Mature	3.9%	2.2%	4.1%	1.3%	11.5%
... New	-5.8%	4.2%	6.5%	1.5%	6.4%
Oregon					
... Mature	10.5%	1.3%	0.0%	3.6%	15.3%
... New	10.2%	2.3%	0.0%	4.2%	16.7%
Pennsylvania					
... Mature	15.7%	1.9%	4.4%	1.0%	23.1%
... New	15.0%	2.3%	6.8%	1.2%	25.2%
Rhode Island					
... Mature	5.2%	5.3%	3.5%	2.2%	16.1%
... New	0.5%	10.7%	5.4%	2.5%	19.1%
South Carolina					
... Mature	4.8%	5.1%	3.6%	0.8%	14.2%
... New	-3.9%	10.9%	5.6%	0.9%	13.5%
South Dakota					
... Mature	0.0%	2.5%	5.0%	0.7%	8.2%
... New	0.0%	2.9%	7.1%	0.9%	10.9%
Tennessee					
... Mature	5.3%	2.7%	5.6%	0.8%	14.5%
... New	3.9%	4.6%	8.5%	0.9%	17.8%
Texas					
... Mature	2.1%	4.3%	4.9%	0.8%	12.0%
... New	2.5%	7.7%	7.3%	0.9%	18.5%
Utah					
... Mature	4.5%	2.7%	4.1%	1.6%	12.8%
... New	3.6%	3.1%	5.0%	1.6%	13.3%

Corporate Headquarters *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Vermont					
... Mature	5.8%	3.3%	3.5%	0.5%	13.1%
... New	0.9%	4.4%	5.4%	0.6%	11.3%
Virginia					
... Mature	5.8%	2.7%	2.6%	0.8%	12.0%
... New	5.6%	5.7%	4.1%	0.9%	16.4%
Washington					
... Mature	9.5%	2.0%	5.6%	2.3%	19.4%
... New	11.2%	3.6%	8.5%	2.7%	25.9%
West Virginia					
... Mature	9.1%	2.6%	4.5%	1.0%	17.2%
... New	5.8%	4.8%	6.5%	1.2%	18.4%
Wisconsin					
... Mature	7.1%	4.4%	3.2%	1.8%	16.5%
... New	-7.1%	7.9%	4.8%	2.2%	7.7%
Wyoming					
... Mature	0.1%	1.1%	3.6%	2.1%	6.9%
... New	0.1%	2.1%	5.3%	2.5%	10.0%
DC					
... Mature	6.7%	4.0%	3.5%	0.8%	14.9%
... New	6.2%	5.8%	7.7%	0.9%	20.6%

Note: Component tax rates may not sum to total effective tax rates due to rounding.

Research & Development

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Alabama					
... Mature	7.4%	3.4%	3.1%	0.7%	14.5%
... New	3.9%	4.2%	6.9%	0.9%	15.8%
Alaska					
... Mature	7.9%	3.4%	0.0%	3.2%	14.4%
... New	7.2%	4.6%	0.0%	4.0%	15.8%
Arizona					
... Mature	0.0%	6.1%	1.3%	0.4%	7.9%
... New	0.0%	10.7%	2.0%	0.5%	13.2%
Arkansas					
... Mature	5.8%	3.7%	3.2%	1.5%	14.1%
... New	-7.0%	6.5%	6.8%	1.9%	8.1%
California					
... Mature	1.7%	3.3%	2.3%	0.7%	8.0%
... New	2.2%	5.8%	4.5%	0.9%	13.4%
Colorado					
... Mature	4.0%	8.1%	1.2%	0.7%	14.0%
... New	2.4%	13.1%	1.9%	0.9%	18.2%
Connecticut					
... Mature	2.8%	7.7%	1.9%	2.1%	14.5%
... New	2.1%	13.5%	3.6%	2.6%	21.8%
Delaware					
... Mature	5.6%	8.9%	0.0%	0.9%	15.4%
... New	5.6%	11.4%	0.0%	1.2%	18.1%
Florida					
... Mature	2.4%	6.8%	1.2%	0.7%	11.0%
... New	1.9%	10.7%	1.5%	0.8%	14.9%
Georgia					
... Mature	0.1%	5.1%	2.4%	0.8%	8.4%
... New	-5.8%	7.2%	5.3%	1.0%	7.6%
Hawaii					
... Mature	-9.6%	3.1%	1.8%	5.5%	0.9%
... New	-15.4%	4.0%	3.7%	7.1%	-0.6%
Idaho					
... Mature	3.5%	4.9%	1.0%	2.9%	12.2%
... New	1.4%	8.5%	1.5%	3.7%	15.0%
Illinois					
... Mature	3.7%	6.1%	3.0%	1.6%	14.5%
... New	0.3%	7.9%	6.7%	2.1%	17.0%
Indiana					
... Mature	0.0%	3.9%	1.2%	0.7%	5.8%
... New	-6.2%	5.1%	1.7%	0.9%	1.6%
Iowa					
... Mature	-4.6%	10.6%	1.3%	0.9%	8.2%
... New	-5.9%	13.6%	1.9%	1.1%	10.7%
Kansas					
... Mature	5.9%	7.5%	2.5%	1.0%	16.9%
... New	-7.3%	9.6%	5.4%	1.2%	8.9%
Kentucky					
... Mature	7.4%	3.2%	1.9%	0.8%	13.3%
... New	-3.3%	5.5%	4.4%	1.0%	7.5%
Louisiana					
... Mature	-7.6%	5.8%	3.2%	0.4%	1.8%
... New	-27.7%	10.0%	6.9%	0.5%	-10.3%
Maine					
... Mature	0.0%	5.8%	0.9%	1.2%	7.8%
... New	-0.9%	6.5%	1.2%	1.5%	8.4%
Maryland					
... Mature	1.7%	4.6%	1.0%	0.7%	7.9%
... New	0.9%	7.3%	1.5%	0.9%	10.4%
Massachusetts					
... Mature	1.8%	9.3%	1.0%	1.6%	13.8%
... New	0.0%	15.8%	1.6%	2.1%	19.5%
Michigan					
... Mature	1.9%	9.3%	1.0%	0.8%	13.0%
... New	1.6%	15.6%	1.5%	1.0%	19.7%
Minnesota					
... Mature	-6.6%	10.4%	1.3%	3.1%	8.2%
... New	-8.6%	13.3%	1.9%	4.0%	10.7%

Research & Development *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Mississippi					
... Mature	4.4%	6.1%	1.5%	0.5%	12.4%
... New	-2.0%	8.1%	2.2%	0.6%	8.9%
Missouri					
... Mature	5.7%	8.8%	2.1%	1.4%	17.9%
... New	0.7%	11.7%	4.3%	1.8%	18.4%
Montana					
... Mature	6.0%	5.1%	0.0%	1.8%	13.0%
... New	3.7%	7.6%	0.0%	2.3%	13.6%
Nebraska					
... Mature	-10.7%	5.5%	2.4%	0.5%	-2.3%
... New	-23.0%	9.6%	5.3%	0.6%	-7.4%
Nevada					
... Mature	2.4%	3.3%	2.7%	2.4%	10.8%
... New	3.1%	5.7%	5.9%	3.1%	17.9%
New Hampshire					
... Mature	6.5%	5.8%	0.0%	1.2%	13.5%
... New	5.7%	7.5%	0.0%	1.5%	14.6%
New Jersey					
... Mature	4.2%	6.2%	1.3%	3.7%	15.4%
... New	-15.7%	7.9%	1.9%	4.7%	-1.1%
New Mexico					
... Mature	3.2%	4.1%	2.9%	1.4%	11.5%
... New	-12.1%	4.4%	5.8%	1.8%	-0.2%
New York					
... Mature	14.5%	7.6%	1.6%	1.0%	24.8%
... New	-11.5%	9.7%	2.4%	1.3%	1.9%
North Carolina					
... Mature	4.3%	2.8%	1.1%	0.8%	8.9%
... New	3.8%	4.2%	1.6%	1.0%	10.7%
North Dakota					
... Mature	0.0%	3.2%	2.4%	1.2%	6.9%
... New	0.0%	4.1%	5.4%	1.6%	11.1%
Ohio					
... Mature	1.9%	6.3%	1.3%	0.7%	10.1%
... New	-2.7%	8.0%	1.9%	0.9%	8.1%
Oklahoma					
... Mature	4.0%	3.9%	2.7%	1.2%	11.8%
... New	-7.4%	7.1%	6.1%	1.6%	7.4%
Oregon					
... Mature	4.4%	2.3%	0.0%	3.4%	10.0%
... New	3.1%	3.9%	0.0%	4.4%	11.4%
Pennsylvania					
... Mature	6.9%	3.3%	1.4%	1.0%	12.5%
... New	6.5%	4.3%	2.1%	1.2%	14.1%
Rhode Island					
... Mature	0.0%	9.4%	1.2%	2.1%	12.7%
... New	0.0%	18.1%	1.7%	2.6%	22.4%
South Carolina					
... Mature	2.6%	9.1%	1.2%	0.7%	13.6%
... New	-6.5%	18.2%	1.8%	0.9%	14.5%
South Dakota					
... Mature	0.0%	4.3%	2.5%	0.7%	7.4%
... New	0.0%	5.5%	5.1%	0.9%	11.4%
Tennessee					
... Mature	6.8%	4.9%	1.8%	0.7%	14.1%
... New	5.3%	7.9%	2.6%	0.9%	16.8%
Texas					
... Mature	0.9%	7.6%	2.9%	0.7%	12.1%
... New	1.1%	13.2%	6.2%	0.9%	21.5%
Utah					
... Mature	0.0%	4.7%	1.3%	1.6%	7.6%
... New	0.0%	5.3%	1.5%	1.6%	8.4%
Vermont					
... Mature	3.3%	6.0%	1.2%	0.5%	10.9%
... New	-3.7%	7.7%	1.7%	0.6%	6.3%
Virginia					
... Mature	7.0%	4.9%	0.9%	0.7%	13.5%
... New	6.9%	9.6%	1.3%	0.9%	18.8%

Research & Development *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Washington					
... Mature	1.9%	3.5%	1.8%	2.3%	9.5%
... New	2.5%	6.2%	2.6%	2.9%	14.2%
West Virginia					
... Mature	10.2%	4.7%	1.4%	1.0%	17.3%
... New	6.1%	8.2%	2.0%	1.2%	17.5%
Wisconsin					
... Mature	0.0%	7.8%	1.0%	1.8%	10.5%
... New	-14.8%	13.5%	1.5%	2.3%	2.5%
Wyoming					
... Mature	0.1%	2.0%	2.1%	2.0%	6.2%
... New	0.2%	3.5%	4.6%	2.6%	10.7%
DC					
... Mature	8.7%	6.3%	2.1%	0.7%	17.9%
... New	7.5%	12.8%	4.5%	0.9%	25.7%

Note: Component tax rates may not sum to total effective tax rates due to rounding.

Retail Store

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Alabama					
... Mature	5.5%	3.5%	3.3%	0.8%	13.0%
... New	6.0%	10.1%	11.3%	1.5%	29.0%
Alaska					
... Mature	6.8%	3.5%	0.0%	2.3%	12.6%
... New	5.4%	7.5%	0.0%	3.9%	16.8%
Arizona					
... Mature	5.5%	6.3%	2.8%	0.7%	15.2%
... New	4.2%	18.2%	9.9%	0.9%	33.1%
Arkansas					
... Mature	5.6%	4.3%	3.3%	2.0%	15.1%
... New	6.0%	11.6%	11.0%	3.6%	32.2%
California					
... Mature	8.6%	3.5%	3.0%	1.0%	16.1%
... New	7.8%	9.9%	10.7%	1.8%	29.9%
Colorado					
... Mature	3.8%	8.4%	2.6%	1.0%	15.8%
... New	2.7%	23.9%	9.0%	1.8%	37.3%
Connecticut					
... Mature	7.3%	8.1%	2.8%	2.8%	20.9%
... New	6.0%	23.1%	8.7%	4.8%	42.5%
Delaware					
... Mature	9.3%	9.5%	0.0%	1.2%	20.1%
... New	9.9%	17.0%	0.0%	2.1%	29.0%
Florida					
... Mature	4.2%	7.1%	2.3%	0.8%	14.6%
... New	3.0%	20.4%	8.4%	1.5%	32.9%
Georgia					
... Mature	5.0%	6.0%	2.5%	1.0%	14.5%
... New	3.9%	16.5%	8.7%	1.8%	30.8%
Hawaii					
... Mature	4.5%	3.3%	4.0%	4.0%	15.8%
... New	0.9%	6.0%	9.2%	6.8%	23.0%
Idaho					
... Mature	6.3%	5.0%	2.0%	2.3%	15.6%
... New	2.4%	14.4%	7.2%	3.9%	27.8%
Illinois					
... Mature	8.0%	6.5%	3.2%	2.2%	19.7%
... New	6.9%	11.6%	11.0%	3.9%	33.1%
Indiana					
... Mature	6.1%	4.1%	2.3%	1.0%	13.6%
... New	0.0%	8.4%	8.4%	1.8%	18.2%
Iowa					
... Mature	7.1%	11.3%	2.5%	0.8%	21.8%
... New	5.4%	20.4%	8.1%	1.5%	35.0%
Kansas					
... Mature	5.6%	8.0%	2.7%	1.3%	17.6%
... New	4.5%	14.3%	9.0%	2.4%	29.9%
Kentucky					
... Mature	7.1%	3.6%	2.0%	1.0%	13.8%
... New	5.7%	9.9%	7.2%	1.8%	24.5%
Louisiana					
... Mature	5.0%	6.6%	3.3%	0.7%	15.4%
... New	5.1%	18.2%	11.0%	1.2%	35.4%
Maine					
... Mature	7.1%	6.1%	1.7%	1.7%	16.6%
... New	5.7%	10.1%	6.3%	2.7%	24.8%
Maryland					
... Mature	7.1%	6.3%	2.0%	1.0%	16.4%
... New	4.8%	24.9%	7.2%	1.5%	38.6%
Massachusetts					
... Mature	6.6%	9.8%	2.2%	2.3%	20.9%
... New	4.5%	27.8%	7.5%	3.9%	43.6%
Michigan					
... Mature	6.5%	9.8%	2.0%	1.0%	19.4%
... New	4.8%	26.3%	7.2%	1.8%	40.1%
Minnesota					
... Mature	7.8%	11.0%	2.7%	2.8%	24.3%
... New	6.0%	19.7%	9.3%	5.1%	40.0%

Retail Store *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Mississippi					
... Mature	4.3%	7.0%	3.0%	0.7%	15.1%
... New	4.5%	19.4%	9.9%	1.2%	34.9%
Missouri					
... Mature	5.1%	9.1%	3.0%	1.8%	19.3%
... New	3.9%	26.0%	10.2%	3.3%	43.1%
Montana					
... Mature	6.0%	5.3%	0.0%	1.7%	12.9%
... New	5.1%	16.2%	0.0%	2.7%	24.0%
Nebraska					
... Mature	6.1%	5.8%	2.6%	0.7%	15.1%
... New	5.7%	16.4%	8.6%	1.2%	31.8%
Nevada					
... Mature	1.0%	3.5%	2.8%	2.5%	9.6%
... New	1.8%	9.9%	9.6%	4.2%	25.4%
New Hampshire					
... Mature	8.1%	6.1%	0.0%	1.5%	15.8%
... New	7.8%	11.0%	0.0%	2.7%	21.5%
New Jersey					
... Mature	7.5%	6.5%	2.6%	3.3%	19.7%
... New	6.0%	11.6%	8.7%	5.7%	31.9%
New Mexico					
... Mature	4.0%	4.3%	3.2%	1.7%	13.1%
... New	3.0%	6.6%	9.6%	2.7%	22.2%
New York					
... Mature	13.7%	7.9%	3.3%	1.5%	26.5%
... New	11.0%	14.3%	11.0%	2.4%	39.1%
North Carolina					
... Mature	5.8%	3.0%	2.3%	1.0%	11.9%
... New	6.0%	8.4%	8.1%	1.8%	23.6%
North Dakota					
... Mature	3.8%	3.5%	2.7%	1.0%	10.9%
... New	3.3%	6.3%	9.0%	1.8%	20.3%
Ohio					
... Mature	3.0%	6.6%	2.5%	1.0%	13.1%
... New	3.9%	11.9%	8.4%	1.8%	25.7%
Oklahoma					
... Mature	5.5%	4.6%	3.0%	1.7%	14.6%
... New	5.1%	13.5%	10.2%	2.7%	31.1%
Oregon					
... Mature	9.3%	2.3%	0.0%	2.8%	14.3%
... New	8.7%	6.9%	0.0%	4.8%	20.3%
Pennsylvania					
... Mature	15.3%	3.5%	2.8%	1.3%	22.9%
... New	13.1%	6.3%	9.9%	2.4%	31.6%
Rhode Island					
... Mature	7.3%	9.8%	2.3%	2.7%	22.1%
... New	4.5%	31.9%	8.4%	4.5%	49.3%
South Carolina					
... Mature	4.5%	9.5%	2.5%	1.0%	17.4%
... New	3.3%	32.5%	8.7%	1.8%	46.3%
South Dakota					
... Mature	0.0%	4.5%	2.6%	1.0%	8.1%
... New	0.0%	8.1%	8.1%	1.5%	18.0%
Tennessee					
... Mature	6.5%	5.1%	3.6%	1.0%	16.1%
... New	6.9%	13.4%	11.9%	1.8%	33.7%
Texas					
... Mature	1.0%	8.8%	3.1%	1.0%	13.9%
... New	1.8%	24.1%	10.1%	1.8%	37.9%
Utah					
... Mature	4.3%	5.0%	2.7%	1.3%	13.3%
... New	3.3%	14.4%	8.7%	2.4%	28.7%
Vermont					
... Mature	7.3%	6.3%	2.3%	0.7%	16.4%
... New	3.0%	12.5%	8.4%	1.2%	24.8%
Virginia					
... Mature	6.1%	5.1%	1.8%	1.0%	14.1%
... New	5.7%	17.0%	6.3%	1.8%	30.7%

Retail Store *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Washington					
... Mature	3.3%	3.6%	3.6%	1.7%	12.1%
... New	5.7%	10.4%	11.9%	2.7%	30.7%
West Virginia					
... Mature	7.8%	5.5%	2.7%	1.3%	17.1%
... New	8.1%	14.9%	8.4%	2.4%	33.7%
Wisconsin					
... Mature	6.5%	9.0%	2.0%	2.3%	19.9%
... New	4.5%	24.8%	6.6%	4.2%	40.0%
Wyoming					
... Mature	0.0%	2.2%	2.2%	2.3%	6.6%
... New	0.3%	6.0%	7.5%	3.9%	17.7%
DC					
... Mature	8.5%	6.6%	2.3%	1.0%	18.4%
... New	6.0%	23.0%	7.5%	1.8%	38.2%

Note: Component tax rates may not sum to total effective tax rates due to rounding.

Capital-Intensive Manufacturer

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Alabama					
... Mature	5.1%	2.1%	2.0%	0.1%	9.3%
... New	0.1%	1.4%	5.5%	0.2%	7.1%
Alaska					
... Mature	10.6%	1.1%	0.0%	0.7%	12.3%
... New	4.0%	0.8%	0.0%	0.8%	5.6%
Arizona					
... Mature	1.2%	4.5%	1.6%	0.1%	7.5%
... New	0.3%	11.7%	2.1%	0.1%	14.3%
Arkansas					
... Mature	8.6%	5.3%	2.0%	0.3%	16.2%
... New	1.9%	3.8%	2.6%	0.4%	8.6%
California					
... Mature	11.0%	3.4%	1.6%	0.2%	16.2%
... New	3.8%	8.9%	4.7%	0.2%	17.7%
Colorado					
... Mature	4.9%	8.6%	1.0%	0.2%	14.7%
... New	1.1%	18.5%	1.3%	0.2%	21.0%
Connecticut					
... Mature	0.1%	6.0%	1.4%	0.4%	8.0%
... New	0.0%	7.5%	1.7%	0.5%	9.8%
Delaware					
... Mature	7.8%	1.2%	0.2%	0.2%	9.3%
... New	2.7%	1.4%	0.2%	0.2%	4.6%
Florida					
... Mature	3.1%	7.1%	1.0%	0.1%	11.3%
... New	0.0%	18.2%	1.2%	0.2%	19.6%
Georgia					
... Mature	0.2%	4.6%	1.0%	0.2%	6.0%
... New	-1.3%	5.9%	1.3%	0.2%	6.0%
Hawaii					
... Mature	7.0%	0.6%	4.0%	1.2%	12.8%
... New	-1.5%	0.9%	8.0%	1.4%	8.8%
Idaho					
... Mature	8.1%	4.4%	0.8%	0.6%	13.9%
... New	1.4%	5.3%	1.1%	0.7%	8.5%
Illinois					
... Mature	10.9%	1.5%	1.5%	0.3%	14.2%
... New	3.2%	0.9%	2.0%	0.4%	6.5%
Indiana					
... Mature	8.0%	10.0%	1.1%	0.2%	19.2%
... New	-0.8%	10.9%	1.4%	0.2%	11.7%
Iowa					
... Mature	0.1%	2.1%	1.5%	0.2%	3.9%
... New	0.0%	2.4%	1.9%	0.2%	4.5%
Kansas					
... Mature	7.8%	1.8%	1.5%	0.2%	11.3%
... New	-1.5%	1.1%	1.9%	0.2%	1.8%
Kentucky					
... Mature	5.0%	3.3%	1.9%	0.2%	10.3%
... New	0.3%	7.2%	2.1%	0.2%	9.8%
Louisiana					
... Mature	-4.2%	11.2%	1.5%	0.1%	8.5%
... New	-7.3%	5.4%	1.9%	0.1%	0.1%
Maine					
... Mature	10.6%	6.0%	0.7%	0.2%	17.6%
... New	2.9%	3.1%	0.9%	0.3%	7.3%
Maryland					
... Mature	0.2%	9.0%	0.9%	0.1%	10.3%
... New	0.0%	24.6%	1.2%	0.2%	26.0%
Massachusetts					
... Mature	10.9%	1.9%	0.9%	0.4%	13.9%
... New	2.9%	2.7%	1.1%	0.4%	7.2%
Michigan					
... Mature	1.3%	6.2%	0.8%	0.2%	8.5%
... New	0.6%	7.8%	1.1%	0.2%	9.7%
Minnesota					
... Mature	0.2%	2.0%	1.1%	0.7%	4.0%
... New	0.1%	2.3%	1.4%	0.8%	4.6%

Capital-Intensive Manufacturer *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Mississippi					
... Mature	7.7%	8.4%	1.5%	0.1%	17.8%
... New	3.7%	6.9%	3.2%	0.1%	13.8%
Missouri					
... Mature	0.2%	6.2%	1.1%	0.3%	7.8%
... New	-0.9%	6.5%	1.4%	0.3%	7.4%
Montana					
... Mature	7.3%	6.8%	0.0%	0.5%	14.5%
... New	2.3%	11.3%	0.0%	0.6%	14.1%
Nebraska					
... Mature	0.1%	6.2%	1.2%	0.1%	7.5%
... New	-1.3%	0.1%	1.4%	1.7%	2.0%
Nevada					
... Mature	0.3%	4.1%	2.9%	0.5%	7.9%
... New	0.4%	10.7%	9.8%	0.6%	21.6%
New Hampshire					
... Mature	10.8%	1.5%	0.0%	0.2%	12.6%
... New	4.8%	2.3%	0.0%	0.3%	7.4%
New Jersey					
... Mature	0.3%	2.3%	1.6%	0.8%	5.0%
... New	-3.7%	2.9%	2.0%	0.9%	2.1%
New Mexico					
... Mature	3.8%	2.9%	4.0%	0.3%	11.0%
... New	-0.6%	0.8%	11.5%	0.4%	12.1%
New York					
... Mature	0.8%	1.9%	1.5%	0.2%	4.5%
... New	-2.5%	2.6%	1.9%	0.3%	2.3%
North Carolina					
... Mature	4.6%	3.1%	1.0%	0.2%	8.9%
... New	2.7%	6.0%	1.3%	0.2%	10.2%
North Dakota					
... Mature	5.5%	1.1%	2.1%	0.3%	9.0%
... New	2.0%	1.0%	2.3%	0.3%	5.6%
Ohio					
... Mature	2.3%	1.4%	1.2%	0.2%	5.1%
... New	0.6%	0.5%	1.5%	0.2%	2.8%
Oklahoma					
... Mature	6.7%	3.1%	1.2%	0.3%	11.3%
... New	-1.4%	4.3%	1.6%	0.3%	4.8%
Oregon					
... Mature	8.9%	4.1%	0.0%	0.7%	13.7%
... New	3.2%	5.8%	0.0%	0.9%	9.8%
Pennsylvania					
... Mature	0.5%	2.3%	1.2%	0.2%	4.2%
... New	0.1%	3.5%	1.5%	0.2%	5.4%
Rhode Island					
... Mature	11.0%	1.9%	1.2%	0.4%	14.5%
... New	1.8%	2.6%	1.5%	0.5%	6.4%
South Carolina					
... Mature	0.1%	14.5%	0.8%	0.2%	15.6%
... New	-1.3%	21.0%	1.1%	0.2%	20.9%
South Dakota					
... Mature	0.0%	1.2%	2.9%	0.2%	4.2%
... New	0.0%	1.5%	8.4%	0.2%	10.1%
Tennessee					
... Mature	5.3%	3.8%	1.6%	0.4%	11.1%
... New	1.6%	4.8%	2.1%	0.4%	8.8%
Texas					
... Mature	0.1%	8.1%	1.5%	0.2%	9.9%
... New	0.1%	17.5%	1.9%	0.2%	19.8%
Utah					
... Mature	5.5%	3.9%	1.1%	0.3%	10.8%
... New	1.8%	4.8%	1.3%	0.4%	8.3%
Vermont					
... Mature	9.1%	7.0%	1.0%	0.1%	17.2%
... New	2.3%	8.5%	1.3%	0.1%	12.2%
Virginia					
... Mature	0.2%	8.3%	0.7%	0.2%	9.3%
... New	0.0%	22.6%	1.0%	0.2%	23.8%

Capital-Intensive Manufacturer *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Washington					
... Mature	3.2%	4.1%	1.7%	0.5%	9.5%
... New	3.7%	10.7%	2.2%	0.6%	17.1%
West Virginia					
... Mature	5.3%	9.0%	1.5%	0.2%	15.9%
... New	1.5%	0.9%	1.8%	0.2%	4.5%
Wisconsin					
... Mature	9.4%	5.6%	1.1%	0.4%	16.5%
... New	1.0%	7.1%	1.4%	0.4%	9.8%
Wyoming					
... Mature	0.2%	2.6%	0.9%	0.5%	4.1%
... New	0.3%	6.7%	1.1%	0.6%	8.7%

Note: Component tax rates may not sum to total effective tax rates due to rounding.

Labor-Intensive Manufacturer

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Alabama					
... Mature	4.2%	0.9%	3.2%	0.3%	8.5%
... New	0.1%	0.7%	5.5%	0.4%	6.7%
Alaska					
... Mature	8.5%	1.6%	0.0%	1.6%	11.7%
... New	7.2%	1.4%	0.0%	2.1%	10.7%
Arizona					
... Mature	1.0%	1.9%	2.9%	0.2%	6.0%
... New	0.8%	5.6%	4.2%	0.3%	10.8%
Arkansas					
... Mature	6.4%	1.5%	3.9%	0.7%	12.5%
... New	-0.7%	1.5%	5.6%	1.0%	7.3%
California					
... Mature	8.9%	1.5%	2.4%	0.4%	13.2%
... New	7.2%	4.3%	4.3%	0.5%	16.3%
Colorado					
... Mature	4.1%	3.7%	2.2%	0.3%	10.3%
... New	2.7%	8.8%	3.2%	0.5%	15.2%
Connecticut					
... Mature	0.1%	2.6%	3.0%	1.0%	6.7%
... New	0.0%	4.1%	4.2%	1.4%	9.8%
Delaware					
... Mature	6.7%	1.9%	0.1%	0.4%	9.2%
... New	4.2%	2.6%	0.2%	0.6%	7.6%
Florida					
... Mature	2.6%	3.0%	1.9%	0.3%	7.8%
... New	0.0%	8.2%	2.6%	0.4%	11.2%
Georgia					
... Mature	0.2%	2.0%	2.1%	0.4%	4.6%
... New	-3.6%	2.8%	3.1%	0.5%	2.8%
Hawaii					
... Mature	5.7%	0.9%	5.4%	2.8%	14.8%
... New	3.3%	1.7%	8.2%	3.7%	16.9%
Idaho					
... Mature	6.6%	1.9%	1.8%	1.4%	11.7%
... New	4.3%	2.7%	2.6%	1.9%	11.5%
Illinois					
... Mature	8.4%	2.3%	2.9%	0.8%	14.4%
... New	3.1%	1.6%	4.3%	1.1%	10.0%
Indiana					
... Mature	6.7%	4.3%	2.1%	0.4%	13.5%
... New	-1.2%	5.2%	3.2%	0.5%	7.6%
Iowa					
... Mature	0.1%	3.3%	3.3%	0.4%	7.1%
... New	0.0%	4.3%	4.7%	0.6%	9.6%
Kansas					
... Mature	6.1%	2.8%	3.2%	0.5%	12.6%
... New	-3.8%	2.0%	4.7%	0.6%	3.5%
Kentucky					
... Mature	4.1%	1.4%	2.1%	0.4%	8.0%
... New	-0.6%	3.6%	3.0%	0.5%	6.5%
Louisiana					
... Mature	-0.2%	3.1%	3.2%	0.2%	6.3%
... New	-7.4%	0.7%	4.6%	0.3%	-1.9%
Maine					
... Mature	8.7%	2.6%	1.5%	0.6%	13.4%
... New	4.8%	3.6%	2.3%	0.8%	11.5%
Maryland					
... Mature	0.2%	2.6%	1.9%	0.3%	4.9%
... New	0.0%	9.4%	2.8%	0.4%	12.6%
Massachusetts					
... Mature	7.9%	2.9%	1.9%	0.8%	13.5%
... New	2.7%	4.9%	2.7%	1.1%	11.4%
Michigan					
... Mature	1.1%	3.1%	1.8%	0.4%	6.3%
... New	0.9%	4.1%	2.6%	0.5%	8.2%
Minnesota					
... Mature	0.2%	3.2%	2.3%	1.5%	7.2%
... New	0.2%	4.2%	3.4%	2.1%	9.8%

Labor-Intensive Manufacturer *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Mississippi					
... Mature	5.9%	2.4%	2.7%	0.2%	11.2%
... New	1.6%	2.6%	4.3%	0.3%	8.8%
Missouri					
... Mature	0.2%	2.6%	2.4%	0.7%	5.8%
... New	-4.2%	3.0%	3.5%	0.9%	3.3%
Montana					
... Mature	6.1%	2.6%	0.0%	1.1%	9.8%
... New	4.8%	5.0%	0.0%	1.5%	11.4%
Nebraska					
... Mature	0.1%	2.6%	2.6%	0.2%	5.5%
... New	-5.2%	0.3%	3.5%	3.0%	1.6%
Nevada					
... Mature	0.9%	1.8%	3.1%	1.2%	7.0%
... New	1.3%	5.1%	6.2%	1.6%	14.3%
New Hampshire					
... Mature	9.1%	2.4%	0.0%	0.6%	12.1%
... New	8.0%	4.2%	0.0%	0.8%	12.9%
New Jersey					
... Mature	0.2%	3.5%	2.9%	1.8%	8.5%
... New	-9.9%	5.2%	4.1%	2.4%	1.8%
New Mexico					
... Mature	3.0%	1.3%	5.3%	0.7%	10.2%
... New	-3.3%	1.5%	9.3%	0.9%	8.5%
New York					
... Mature	0.5%	3.0%	3.2%	0.5%	7.2%
... New	-6.2%	4.7%	4.7%	0.7%	3.8%
North Carolina					
... Mature	3.5%	1.3%	2.1%	0.4%	7.3%
... New	0.1%	2.9%	3.1%	0.5%	6.5%
North Dakota					
... Mature	4.4%	1.7%	2.4%	0.6%	9.1%
... New	3.4%	1.8%	3.4%	0.8%	9.4%
Ohio					
... Mature	1.9%	2.2%	2.5%	0.4%	6.9%
... New	-0.2%	1.0%	3.6%	0.5%	4.8%
Oklahoma					
... Mature	5.4%	1.3%	2.6%	0.6%	10.0%
... New	-4.0%	2.8%	3.9%	0.8%	3.5%
Oregon					
... Mature	7.0%	1.7%	0.0%	1.7%	10.5%
... New	5.7%	5.0%	0.0%	2.3%	13.0%
Pennsylvania					
... Mature	0.4%	3.6%	2.2%	0.5%	6.6%
... New	0.1%	6.4%	3.1%	0.6%	10.2%
Rhode Island					
... Mature	8.7%	3.0%	2.2%	1.0%	14.9%
... New	2.2%	5.2%	3.3%	1.4%	12.0%
South Carolina					
... Mature	0.1%	5.5%	1.8%	0.4%	7.7%
... New	-4.5%	9.3%	2.6%	0.5%	8.0%
South Dakota					
... Mature	0.0%	1.8%	3.9%	0.3%	6.0%
... New	0.0%	2.7%	6.8%	0.5%	9.9%
Tennessee					
... Mature	4.0%	1.9%	3.5%	0.9%	10.2%
... New	2.6%	2.5%	5.1%	1.2%	11.3%
Texas					
... Mature	0.1%	3.3%	3.1%	0.4%	7.0%
... New	0.2%	9.6%	4.5%	0.5%	14.8%
Utah					
... Mature	4.5%	1.7%	2.3%	0.8%	9.2%
... New	3.2%	2.1%	2.9%	0.9%	9.0%
Vermont					
... Mature	7.5%	3.0%	2.1%	0.2%	12.8%
... New	3.9%	4.2%	3.1%	0.3%	11.6%
Virginia					
... Mature	0.1%	2.2%	1.6%	0.4%	4.3%
... New	0.1%	8.5%	2.3%	0.5%	11.4%

Labor-Intensive Manufacturer *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Washington					
... Mature	4.2%	1.8%	3.4%	1.1%	10.5%
... New	5.5%	5.1%	4.9%	1.5%	17.0%
West Virginia					
... Mature	7.8%	2.5%	2.8%	0.5%	13.6%
... New	2.3%	0.4%	4.0%	0.7%	7.3%
Wisconsin					
... Mature	7.7%	2.3%	2.1%	0.9%	13.0%
... New	-0.5%	3.9%	3.1%	1.2%	7.7%
Wyoming					
... Mature	0.1%	1.1%	1.8%	1.3%	4.3%
... New	0.2%	3.2%	2.7%	1.7%	7.7%

Note: Component tax rates may not sum to total effective tax rates due to rounding.

Call Center

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Alabama					
... Mature	4.3%	2.5%	3.4%	3.3%	13.5%
... New	0.5%	4.5%	7.9%	4.3%	17.2%
Alaska					
... Mature	7.3%	6.0%	0.0%	10.5%	23.7%
... New	6.6%	7.9%	0.0%	13.9%	28.3%
Arizona					
... Mature	1.6%	5.5%	2.9%	2.1%	12.1%
... New	1.5%	9.9%	6.6%	2.8%	20.7%
Arkansas					
... Mature	5.6%	3.9%	3.6%	7.2%	20.3%
... New	-13.8%	7.1%	8.0%	9.6%	10.9%
California					
... Mature	0.9%	4.2%	2.6%	3.7%	11.4%
... New	0.9%	7.5%	5.9%	4.9%	19.2%
Colorado					
... Mature	3.7%	10.5%	2.5%	3.5%	20.1%
... New	1.0%	17.8%	5.8%	4.6%	29.1%
Connecticut					
... Mature	6.9%	7.3%	2.7%	10.2%	26.9%
... New	3.2%	13.1%	5.6%	13.4%	35.4%
Delaware					
... Mature	10.0%	6.9%	0.0%	4.4%	21.3%
... New	7.3%	9.1%	0.0%	5.8%	22.2%
Florida					
... Mature	2.3%	8.6%	2.1%	3.3%	16.3%
... New	2.0%	15.5%	4.7%	4.3%	26.5%
Georgia					
... Mature	0.2%	5.5%	2.4%	3.9%	12.0%
... New	-34.7%	8.3%	5.5%	5.1%	-15.8%
Hawaii					
... Mature	4.3%	3.4%	1.8%	16.8%	26.3%
... New	2.3%	4.5%	3.7%	22.2%	32.7%
Idaho					
... Mature	5.8%	5.3%	2.1%	9.9%	23.1%
... New	3.4%	9.6%	4.7%	13.1%	30.7%
Illinois					
... Mature	7.4%	8.4%	3.1%	8.1%	26.9%
... New	0.5%	11.1%	7.1%	10.7%	29.3%
Indiana					
... Mature	5.5%	12.1%	2.4%	3.6%	23.5%
... New	-9.5%	17.1%	5.5%	4.7%	17.9%
Iowa					
... Mature	0.1%	12.0%	2.9%	3.8%	18.8%
... New	0.0%	15.9%	6.2%	5.1%	27.1%
Kansas					
... Mature	5.4%	10.3%	3.3%	4.8%	23.8%
... New	4.7%	13.6%	7.3%	6.4%	31.9%
Kentucky					
... Mature	7.5%	4.3%	2.1%	3.8%	17.6%
... New	-13.5%	7.0%	4.7%	5.0%	3.2%
Louisiana					
... Mature	5.7%	8.4%	3.2%	2.3%	19.6%
... New	5.9%	15.2%	7.1%	3.0%	31.2%
Maine					
... Mature	0.0%	7.3%	1.7%	5.7%	14.8%
... New	-1.7%	9.2%	4.1%	7.6%	19.2%
Maryland					
... Mature	3.6%	5.8%	2.1%	3.3%	14.8%
... New	1.7%	13.6%	4.7%	4.4%	24.4%
Massachusetts					
... Mature	5.9%	11.7%	2.2%	8.2%	28.0%
... New	1.4%	20.7%	4.9%	10.9%	37.9%
Michigan					
... Mature	1.4%	9.1%	2.1%	3.9%	16.4%
... New	1.2%	15.5%	4.7%	5.1%	26.5%
Minnesota					
... Mature	0.2%	11.6%	2.6%	12.4%	26.8%
... New	0.3%	15.3%	6.0%	16.4%	38.0%

Call Center *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Mississippi					
... Mature	5.1%	6.2%	2.6%	2.4%	16.4%
... New	-6.9%	9.0%	5.8%	3.2%	11.0%
Missouri					
... Mature	4.3%	7.3%	2.7%	6.9%	21.1%
... New	3.7%	13.3%	6.2%	9.1%	32.3%
Montana					
... Mature	5.5%	7.2%	0.0%	7.7%	20.3%
... New	5.0%	11.5%	0.0%	10.1%	26.6%
Nebraska					
... Mature	0.2%	7.5%	2.6%	2.3%	12.5%
... New	-11.3%	2.4%	4.6%	7.1%	2.9%
Nevada					
... Mature	4.4%	5.0%	2.7%	10.5%	22.6%
... New	5.9%	9.1%	6.1%	13.9%	34.9%
New Hampshire					
... Mature	9.9%	8.7%	0.0%	5.7%	24.2%
... New	10.3%	11.5%	0.0%	7.5%	29.3%
New Jersey					
... Mature	6.0%	12.9%	2.6%	13.8%	35.4%
... New	-94.7%	17.1%	5.8%	18.3%	-53.5%
New Mexico					
... Mature	5.2%	3.5%	3.7%	6.8%	19.2%
... New	2.9%	4.2%	7.6%	9.0%	23.6%
New York					
... Mature	5.5%	10.9%	3.3%	5.2%	24.9%
... New	4.7%	14.5%	7.2%	6.9%	33.4%
North Carolina					
... Mature	5.7%	3.8%	2.4%	3.8%	15.7%
... New	5.7%	6.1%	5.5%	5.0%	22.4%
North Dakota					
... Mature	3.8%	6.3%	2.3%	4.4%	16.8%
... New	3.4%	8.3%	5.3%	5.9%	22.9%
Ohio					
... Mature	1.7%	8.0%	2.4%	3.7%	15.8%
... New	-6.8%	10.6%	5.4%	4.8%	14.0%
Oklahoma					
... Mature	3.7%	3.8%	3.1%	6.0%	16.6%
... New	-17.8%	6.8%	7.0%	8.0%	4.0%
Oregon					
... Mature	5.2%	4.9%	0.0%	11.8%	22.0%
... New	4.7%	8.9%	0.0%	15.7%	29.2%
Pennsylvania					
... Mature	2.2%	13.2%	2.1%	4.7%	22.3%
... New	2.6%	17.5%	4.8%	6.2%	31.1%
Rhode Island					
... Mature	6.5%	11.6%	2.4%	10.2%	30.7%
... New	0.0%	23.2%	5.5%	13.4%	42.2%
South Carolina					
... Mature	4.1%	14.8%	2.1%	3.6%	24.6%
... New	-10.0%	28.3%	4.7%	4.8%	27.8%
South Dakota					
... Mature	0.0%	6.7%	2.7%	3.4%	12.8%
... New	0.0%	8.9%	5.5%	4.5%	18.9%
Tennessee					
... Mature	6.5%	5.6%	3.5%	3.7%	19.2%
... New	3.4%	9.4%	7.8%	4.8%	25.5%
Texas					
... Mature	1.8%	9.4%	3.1%	3.7%	17.9%
... New	2.4%	16.9%	6.8%	4.8%	30.9%
Utah					
... Mature	0.1%	4.7%	2.3%	6.0%	13.1%
... New	0.0%	5.5%	4.0%	6.3%	15.9%
Vermont					
... Mature	7.0%	8.5%	2.4%	2.4%	20.3%
... New	-3.9%	12.0%	5.5%	3.2%	16.8%
Virginia					
... Mature	7.7%	4.9%	1.8%	3.7%	18.1%
... New	5.9%	11.9%	4.2%	4.9%	26.9%

Call Center *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Washington					
... Mature	0.3%	5.0%	3.3%	6.8%	15.3%
... New	0.3%	9.0%	7.2%	9.0%	25.5%
West Virginia					
... Mature	11.6%	6.7%	2.4%	4.9%	25.6%
... New	12.9%	12.0%	5.2%	6.4%	36.6%
Wisconsin					
... Mature	0.1%	8.3%	2.1%	8.6%	19.1%
... New	-27.9%	14.9%	4.5%	11.4%	3.0%
Wyoming					
... Mature	0.1%	3.1%	1.9%	9.4%	14.4%
... New	0.1%	5.6%	4.1%	12.4%	22.3%

Note: Component tax rates may not sum to total effective tax rates due to rounding.

Distribution Center

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Alabama					
... Mature	4.7%	6.6%	4.5%	0.7%	16.4%
... New	0.6%	10.4%	10.4%	0.9%	22.3%
Alaska					
... Mature	7.8%	16.4%	0.0%	2.3%	26.5%
... New	5.9%	10.9%	0.0%	3.1%	19.8%
Arizona					
... Mature	1.5%	14.6%	3.7%	0.4%	20.3%
... New	0.3%	23.1%	8.6%	0.6%	32.6%
Arkansas					
... Mature	5.9%	10.6%	5.0%	1.5%	22.9%
... New	-1.6%	16.7%	10.9%	2.0%	27.9%
California					
... Mature	0.0%	11.1%	3.3%	0.7%	15.2%
... New	0.0%	17.6%	7.8%	1.0%	26.3%
Colorado					
... Mature	3.4%	27.8%	3.3%	0.7%	35.2%
... New	1.2%	36.3%	7.6%	0.9%	46.0%
Connecticut					
... Mature	7.2%	19.3%	3.8%	2.1%	32.3%
... New	1.1%	30.6%	7.8%	2.7%	42.3%
Delaware					
... Mature	8.8%	18.9%	0.0%	0.9%	28.5%
... New	4.5%	19.3%	0.0%	1.2%	25.0%
Florida					
... Mature	2.1%	22.9%	2.7%	0.7%	28.3%
... New	1.0%	36.2%	6.2%	0.9%	44.2%
Georgia					
... Mature	0.1%	14.7%	3.1%	0.8%	18.7%
... New	-6.9%	11.6%	7.3%	1.0%	13.0%
Hawaii					
... Mature	5.1%	9.5%	2.8%	4.2%	21.7%
... New	1.4%	12.5%	5.5%	5.6%	25.0%
Idaho					
... Mature	6.3%	14.1%	2.7%	2.5%	25.6%
... New	1.8%	22.3%	6.2%	3.3%	33.6%
Illinois					
... Mature	7.3%	23.1%	4.0%	1.6%	36.0%
... New	1.9%	12.2%	9.3%	2.2%	25.5%
Indiana					
... Mature	4.8%	32.1%	3.1%	0.7%	40.8%
... New	-2.6%	22.3%	7.3%	1.0%	27.9%
Iowa					
... Mature	0.0%	33.0%	4.2%	0.9%	38.1%
... New	0.0%	31.8%	8.6%	1.1%	41.6%
Kansas					
... Mature	5.0%	28.2%	4.4%	1.0%	38.6%
... New	2.3%	37.2%	9.8%	1.3%	50.6%
Kentucky					
... Mature	7.8%	11.5%	2.7%	0.8%	22.7%
... New	0.3%	17.2%	6.2%	1.0%	24.7%
Louisiana					
... Mature	5.2%	21.6%	4.3%	0.5%	31.6%
... New	-2.2%	34.4%	9.6%	0.6%	42.4%
Maine					
... Mature	0.0%	19.5%	2.3%	1.2%	22.9%
... New	-0.4%	24.6%	5.5%	1.5%	31.3%
Maryland					
... Mature	3.6%	15.1%	2.7%	0.7%	22.0%
... New	1.6%	28.5%	6.2%	0.9%	37.2%
Massachusetts					
... Mature	5.6%	31.1%	2.8%	1.7%	41.1%
... New	0.0%	46.8%	6.5%	2.2%	55.6%
Michigan					
... Mature	1.2%	24.5%	2.7%	0.8%	29.0%
... New	0.6%	37.2%	6.2%	1.0%	45.0%
Minnesota					
... Mature	0.1%	31.8%	3.4%	3.1%	38.4%
... New	0.2%	33.4%	7.9%	4.1%	45.6%

Distribution Center *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Mississippi					
... Mature	4.8%	16.8%	3.5%	0.5%	25.6%
... New	0.7%	10.8%	7.8%	0.6%	20.0%
Missouri					
... Mature	4.3%	19.4%	3.5%	1.4%	28.6%
... New	3.2%	12.4%	8.2%	1.8%	25.6%
Montana					
... Mature	5.7%	18.8%	0.0%	1.8%	26.3%
... New	4.0%	19.8%	0.0%	2.3%	26.1%
Nebraska					
... Mature	0.1%	19.9%	3.5%	0.5%	23.9%
... New	-3.1%	0.6%	7.7%	23.9%	29.0%
Nevada					
... Mature	1.0%	13.4%	3.4%	2.5%	20.2%
... New	1.3%	21.1%	8.0%	3.3%	33.7%
New Hampshire					
... Mature	7.5%	23.8%	0.0%	1.2%	32.4%
... New	5.1%	31.4%	0.0%	1.5%	38.0%
New Jersey					
... Mature	5.6%	35.5%	3.5%	3.5%	48.2%
... New	-17.9%	46.9%	7.8%	4.7%	41.5%
New Mexico					
... Mature	5.6%	9.4%	5.4%	1.4%	21.8%
... New	3.2%	11.6%	10.7%	1.9%	27.4%
New York					
... Mature	4.9%	30.1%	4.4%	1.1%	40.5%
... New	2.6%	35.2%	9.7%	1.4%	49.0%
North Carolina					
... Mature	5.9%	10.1%	3.1%	0.8%	19.9%
... New	4.4%	12.2%	7.3%	1.0%	24.9%
North Dakota					
... Mature	3.8%	17.3%	3.0%	1.1%	25.2%
... New	2.7%	12.6%	7.0%	1.5%	23.7%
Ohio					
... Mature	1.6%	22.0%	3.3%	0.7%	27.6%
... New	-0.6%	7.3%	7.2%	1.0%	14.9%
Oklahoma					
... Mature	3.9%	10.0%	4.0%	1.2%	19.1%
... New	-2.1%	15.8%	9.2%	1.6%	24.6%
Oregon					
... Mature	5.9%	13.1%	0.0%	3.0%	22.0%
... New	3.8%	20.7%	0.0%	4.0%	28.5%
Pennsylvania					
... Mature	0.9%	36.3%	2.9%	1.0%	41.0%
... New	1.2%	47.9%	6.5%	1.3%	56.8%
Rhode Island					
... Mature	6.2%	30.4%	3.1%	2.1%	41.8%
... New	2.6%	42.6%	7.3%	2.7%	55.2%
South Carolina					
... Mature	3.3%	38.9%	2.7%	0.7%	45.6%
... New	-3.1%	64.0%	6.2%	1.0%	68.1%
South Dakota					
... Mature	0.0%	18.4%	4.0%	0.7%	23.1%
... New	0.0%	24.3%	7.9%	0.9%	33.1%
Tennessee					
... Mature	6.6%	14.9%	4.8%	0.7%	27.1%
... New	4.1%	11.3%	10.6%	1.0%	27.0%
Texas					
... Mature	2.4%	24.9%	4.2%	0.7%	32.2%
... New	3.1%	39.4%	9.2%	1.0%	52.7%
Utah					
... Mature	2.2%	12.5%	3.2%	1.5%	19.5%
... New	1.4%	8.9%	6.2%	1.8%	18.4%
Vermont					
... Mature	6.7%	22.4%	3.1%	0.5%	32.7%
... New	2.3%	18.6%	7.3%	0.6%	28.7%
Virginia					
... Mature	6.7%	12.3%	2.3%	0.7%	22.1%
... New	4.6%	24.2%	5.5%	1.0%	35.2%

Distribution Center *Continued*

State	Income Taxes	Property Taxes	Sales Taxes	UI Taxes	Total Effective Tax Rate
Washington					
… Mature	0.0%	13.3%	4.4%	1.7%	19.4%
… New	0.0%	21.1%	9.7%	2.3%	33.0%
West Virginia					
… Mature	8.7%	18.0%	3.4%	1.0%	31.1%
… New	4.8%	28.5%	7.2%	1.3%	41.7%
Wisconsin					
… Mature	0.0%	22.4%	2.8%	1.8%	26.9%
… New	-6.3%	35.3%	6.1%	2.3%	37.4%
Wyoming					
… Mature	0.1%	8.3%	2.5%	2.1%	12.9%
… New	0.2%	13.1%	5.6%	2.7%	21.5%

Note: Component tax rates may not sum to total effective tax rates due to rounding.

Appendix D
Methodology

Seven business scenarios were defined for use in the tax cost model. Each business scenario was reviewed under two fact patterns:

- New business (businesses over their first ten years of operation)
- Pre-existing operation (in operation 10 years or more)

In order to facilitate the calculation of effective tax burdens for each business operation based on the model, a sample company is identified for each firm type. For example, the capital-intensive manufacturing firm is assumed to be a steel company. For each scenario, assumptions are made with regard to the number of employees by function, salaries, capital investment, revenue, profit, and the amount of property, payroll, and sales in the state, as specified for each firm type below. These parameters are developed for each industry operation based on two sources of detailed industry-average financial and operating data:

- Anything Research data (www.anythingresearch.com), which compiles publicly available financial data for a wide range of specific industries.
- The IRS Corporation Source Book, which presents balance sheet, income statement, tax, and other selected items for all taxpayer corporations by size of total assets and by North American Industry Classification System (NAICS) sector. From this source, the statistics used are for all returns with net income.

The model assumes that all businesses in these scenarios are separate legal entities. Detailed financial statements are developed for each operation and modeled in each location, resulting in profit and loss statements as the basis for tax computation. The seven industry-specific business scenarios are as follows:[11]

1. **The first business scenario is a high-wage service business, e.g. a regional corporate headquarters.** This operation has 200 employees including management, financial operations, IT, sales, and administrative positions. Capital investment is estimated at $10 million, and the business leases 60,000 square feet of Class A downtown office space. The average revenue is assumed to be approximately $31 million with a gross profit ratio of 17 percent and earnings before tax of 14 percent. The equity ratio is assumed to be 100 percent. The apportionment methodology assumes 50 percent of property and payroll to be located in the state. The income producing activities of the office are assumed to occur in state, provide all benefits in state, and relate exclusively to the marketplace of the state.

11 Average industry scenarios are based on IRS data and Anything Research data.

2. **The second business scenario is a pharmaceutical research and development (R&D) facility for product development.** The facility is assumed to have 50 employees, including management, business and financial, computer and math, science, and administrative positions. Capital investment is estimated at $4 million and the business leases 30,000 square feet of Class A suburban commercial space. The average revenue is assumed to be approximately $8 million with earnings before tax of 14 percent. The equity ratio is assumed to be 100 percent. For R&D credit calculation, 60 percent of salaries and wages are assumed to represent qualifying R&D labor, and qualifying R&D materials are assumed to equal 10 percent of R&D labor. The apportionment methodology assumes 100 percent of property and payroll to be in the state. While all income producing activities are assumed to be performed in state, those activities are assumed to serve clients nationally, and therefore, generate benefits and relate to the marketplaces of all 50 states in proportion to the relative population of each state.

3. **The retail business scenario is an independent clothing store.** This store has 25 employees, most of whom are sales employees. Capital investment is estimated at $2 million, and the business leases 10,000 square feet of downtown commercial space. The average revenue is assumed to be approximately $2.9 million with a gross profit ratio of 45 percent and earnings before tax of 9 percent. The equity ratio is assumed to be 100 percent. The apportionment methodology assumes 100 percent of property, payroll, and sales are all in state.

4. **The fourth scenario is a capital-intensive manufacturing operation, e.g. a steel company.** The business scenario assumes the company has 200 positions, including management, administrative, installation and maintenance, production, transportation, and materials employees. The scenario assumes $300 million in capital investment, including owning a 250,000 square foot suburban industrial building. The average revenue is assumed to be approximately $200 million with a gross profit ratio of 25 percent and earnings before tax of 10 percent. The equity ratio is assumed to be 50 percent. The apportionment methodology assumes 100 percent of property and payroll to be in the state in which the manufacturer is located, while sales are assumed to be distributed among all 50 U.S. states in proportion to the relative population of each state.

5. **The fifth business scenario is a labor-intensive manufacturing business, e.g. a heavy transportation equipment manufacturer.** The labor consists of 300 positions, including management, installation, maintenance, production, and assembly employees (who are the majority of the employees). The model assumes capital investment is $65 million, including owning a 250,000 square foot suburban industrial building. The average revenue is assumed to be approximately $174 million with a gross profit ratio of 20 percent and earnings before tax of 7 percent. The equity ratio is assumed to be 30 percent. The apportionment methodology assumes 100 percent of property and payroll to be in the state in which the manufacturer is located, while sales are assumed to be distributed among all 50 U.S. states in proportion to the relative population of each state.

6. **The sixth business scenario is a low-wage service business, e.g. an internal call center/shared services center.** This operation has 600 employees, including management, sales, and administrative employees. Capital investment is estimated at $10 million, and the business leases 100,000 square feet of Class A suburban office space. The average revenue is assumed to be approximately $29 million with earnings before tax of 7 percent. The equity ratio is assumed to be 100 percent. The apportionment methodology assumes 100 percent of property and payroll to be in the state. While all income-producing activities are assumed to be performed in state, those activities are assumed to serve customers and clients nationally, and therefore, generate benefits and relate to the marketplaces of all 50 states in proportion to the relative population of each state.

7. **The seventh business scenario is a distribution center (i.e. warehouse facility) operated by an independent third-party logistics provider for a large company.** This scenario has 95 employees in transportation and material handling, administrative, and management occupations. Capital investment is estimated at $11 million, and the business leases 350,000 square feet of Class B suburban industrial space. The average revenue is assumed to be approximately $13 million with a gross profit ratio of 68 percent and earnings before tax of 12 percent. The equity ratio is assumed to be 50 percent. The apportionment methodology assumes 100 percent of property and payroll to be in state. The income-producing activities of the distribution center are assumed to occur in state. However, the sole customer contracting for the operation of the distribution center is assumed to be located out of state. As such, the benefits associated with the distribution center's activities are assumed to occur out of state.

Locations

Recognizing that different industries have different location needs, our study divides locations for our firms into two tiers. Tier 1 is a major city in the state while Tier 2 is a mid-sized city in the state, generally with a population of less than 500,000. We then locate the model corporate headquarters, R&D center, and retail outlet in a Tier 1 city within each state. The call center, distribution center, and manufacturing facilities are all located in a Tier 2 city. These locations are listed below. Due to its small size, all Rhode Island analysis relates to the Providence metropolitan area.

State	Tier 1	Tier 2
Alabama	Birmingham	Montgomery
Alaska	Anchorage	Fairbanks
Arizona	Phoenix	Prescott
Arkansas	Little Rock	Fort Smith
California	Los Angeles	Merced
Colorado	Denver	Fort Collins
Connecticut	Hartford	Norwich
Delaware	Wilmington	Dover
Florida	Miami	Gainesville
Georgia	Atlanta	Macon
Hawaii	Honolulu	Hilo
Idaho	Boise	Coeur d' Alene
Illinois	Chicago	Springfield
Indiana	Indianapolis	Elkhart
Iowa	Des Moines	Cedar Rapids
Kansas	Wichita	Topeka
Kentucky	Louisville	Lexington
Louisiana	New Orleans	Shreveport
Maine	Portland	Bangor

State	Tier 1	Tier 2
Maryland	Baltimore	Salisbury
Massachusetts	Boston	Worcester
Michigan	Detroit	Saginaw
Minnesota	Minneapolis	Rochester
Mississippi	Jackson	Gulfport
Missouri	St. Louis	Joplin
Montana	Billings	Missoula
Nebraska	Omaha	Lincoln
Nevada	Las Vegas	Reno
New Hampshire	Manchester	Concord
New Jersey	Newark	Trenton
New Mexico	Albuquerque	Santa Fe
New York	New York	Utica
North Carolina	Raleigh	Wilmington
North Dakota	Fargo	Grand Forks
Ohio	Cincinnati	Canton
Oklahoma	Oklahoma City	Lawton
Oregon	Portland	Salem
Pennsylvania	Philadelphia	Reading
Rhode Island	Providence	Providence
South Carolina	Columbia	Spartanburg
South Dakota	Sioux Falls	Rapid City
Tennessee	Nashville	Clarksville
Texas	Dallas	Lubbock
Utah	Salt Lake City	St. George
Vermont	Burlington	Rutland
Virginia	Richmond	Roanoke
Washington	Seattle	Spokane
West Virginia	Charleston	Parkersburg
Wisconsin	Milwaukee	Eau Claire
Wyoming	Cheyenne	Casper
District of Columbia	Washington	n/a

State Corporate Income Tax

Corporate income tax liability was reviewed at the state and local level. Assumptions and notes pertaining to the calculation of state corporate income tax liability, including topics such as how income is calculated, apportionment methodology, income sourcing, and rates, are detailed below.

Taxable Income

The following assumptions were relied upon in identifying taxable income by state for inputs into the tax cost model:

Federal taxable income is modified for (1) the add-back of state taxes and (2) state decoupling from IRC 199 deduction (both as required by state). No adjustments have been made for state decoupling from federal bonus depreciation since this adjustment is a timing item. Federal taxable income assumes there are no net operating losses available from prior years.

Net income before tax varies between locations due to variations in other state and local taxes (property, sales, gross receipts, unemployment insurance, etc.). Therefore, variations in federal tax paid are wholly attributable to the impact on taxable income of these other taxes. Variations in federal tax do not impact the calculation of the state tax burden, except to the extent that a handful of states allow a deduction at the state level for federal tax paid. Similarly, variations in state net income (top line from the federal form, before allowing for different rules regarding deductibility of federal/state taxes paid, different rules regarding

IRC 199 deductions, and different state depreciation in California) are attributable solely to variations in other state and local taxes paid.

Apportionment and Sourcing of Service Income

The model assumes that entities have the right to apportion.[12] The tax review was conducted for the "home" state; tax liabilities in other states were not considered in this study. Where applicable, the calculations assume that the entity will elect the most advantageous apportionment formula (e.g., three-factor, single sales factor, etc.). States where an alternative method has been assumed are as follows:[13]

Arizona

In Arizona, corporations may elect enhanced sales factor (7.5/7.5/85 percent) or double-weighted sales factor (25/25/50 percent) apportionment.[14] Effective tax years 2014 and thereafter, a multistate service provider (MSP)[15] may elect to treat sales from services as being in Arizona either using the default income-producing activity (IPA) test alone, or based on income-producing activity sales and market sales. For 2014, an electing MSP would treat its receipts as 85 percent of market sales and 15 percent of income-producing sales.[16]

In our study, we elect enhanced sales factor apportionment for the two manufacturing firms, as their sales percentage will be lower than property or payroll. The corporate headquarters, which as modeled has both out-of-state property and payroll, uses double-weighted sales factor apportionment. The corporate office must use the IPA test for sourcing income, as under the "location of benefit" test, all sales are within Arizona and as such, this firm does not qualify as an MSP.

Finally, the call center, distribution center, and R&D facility elect enhanced sales factor apportionment and the new MSP elective sales sourcing option, as in each case, IPA sales sourcing is 100 percent in state while market sourcing places most, if not all, sales out of state.

Missouri

As of 2014, corporations may select from among a new single sales factor apportionment option, a historical receipts-only factor, and an evenly-weighted three factor (33.3/33.3/33.3 percent) apportionment formula. Although the statute is unclear, the state has taken the position that only sellers of tangible personal property may elect the new standard single sales factor methodology.

In our study, manufacturing facilities adopt single sales factor apportionment, and the corporate headquarters elects evenly-weighted three factor apportionment. Both options produce the same result for the R&D center, call center, and distribution center; we adopt single sales factor apportionment for these firms.

12 Apportionment rules from RIA Checkpoint; Commerce Clearinghouse; and state Department of Revenue websites.
13 California made this list in the first edition of *Location Matters*, but for tax years 2013 and later, single sales factor apportionment is required unless the taxpayer is a financial or extractive company; therefore, all California firms in our study now use single sales factor apportionment.
14 Ariz. Rev. Stat. Ann. § 43-1139(A)(4).
15 Multistate Service Providers are taxpayers that derive more than 85 percent of their sales from services provided to purchasers who receive the benefit of the service outside of Arizona.
16 Ariz. Rev. Stat. Ann. § 43-1147 (B)(1).

New Mexico

In New Mexico, manufacturers can elect double-weighted sales factor or evenly-weighted three-factor apportionment.[17] Electing manufacturers are not subject to the throwback rule, which makes the double-weighted sales factor formula beneficial for manufacturers.

Oklahoma

Oklahoma offers a choice of double-weighted sales factor apportionment or evenly-weighted three-factor apportionment for businesses with an investment of $200 million or more.[18] This threshold excludes all firms in our study except the capital-intensive manufacturing firm, for which the state's throwback rule results in the same outcome using either formula.

Rhode Island

Manufacturers (NAICS 31-33) can opt for either double-weighted sales factor or evenly-weighted three-factor apportionment in Rhode Island,[19] but because the state has a throwback rule, the two apportionment formulas yield identical results for our model manufacturing firms.

Utah

Since 2014, "sales factor weighted manufacturers"[20] have been required to use single sales factor apportionment. The corporate headquarters, R&D facility, call center, and retail store are all single sales factor weighted taxpayers and must use single sales factor apportionment. Non-sales weighted taxpayers can elect evenly-weighted three-factor apportionment or double-weighted sales factor apportionment.[21] For manufacturing, both options produce the same result due to the state's throwback rule. For the distribution center, sales are treated as being out of state (location of benefit). Therefore, we elect double-weighted sales factor apportionment for this firm due to the lower weighting of property and payroll.

Virginia

As of the April 1, 2014 snapshot date of this study, manufacturing companies in Virginia could elect phased-in single sales factor apportionment. From July 1, 2014 onward, electing manufacturing corporations have been permitted to use the single sales factor method to apportion Virginia taxable income.[22]

In our study, manufacturing firms use the sales-weighted option, while retailers are subject to mandatory phased-in single sales factor apportionment at 16.66/16.66/66.67 percent (quadruple-weighted sales).[23] Single sales factor applies for retailers after July 1, 2015, though for model retailers in this study, the change makes no difference, as sales are assumed to be wholly in state. All other firms must still use double-weighted sales factor apportionment.

17 NMSA 1978 § 7-4-10(A),(B).
18 Okla. Stat. § 2358(A)(5).
19 R.I. Gen. Laws § 44-11-14; R.I. Gen. Laws § 44-11-14.6.
20 Sales factor weighted taxpayers are taxpayers or unitary groups with more than 50 percent of their everywhere sales from certain activities except for activities described in enumerated NAICS codes, including manufacturing and transportation and warehousing. Utah Code Ann. § 59-7-302(1)(k).
21 Utah Code Ann. § 59-7-311(2).
22 Va. Code Ann. § 58.1-422.
23 Va. Code Ann. § 58.1-422.1.

Standard Assumptions

In scenarios involving sales of tangible personal property and throwback, the model assumes that goods are shipped from within the state and that the entity is not taxable in destination states. Therefore, the sales factor equals 100 percent. In states with no throwback rules, the sales factor equals the percentage of the U.S. population in state.

State rules for the sourcing of service income can be divided into two categories, one relying on the location of the greater proportion of income-producing activity (IPA sourcing) and the other emphasizing the location where services are received (benefit or market sourcing). In the latter category, Arizona, California, Georgia, Illinois, Iowa, Maine, Maryland, Michigan, Minnesota, Ohio, Utah, Washington, and Wisconsin emphasize the location where the benefit of services is received; while Alabama, Massachusetts, Nebraska, and Pennsylvania emphasize delivery of service to a location in the state; and Florida and Oklahoma emphasize the state marketplace of the customer.[24]

In our study, 100 percent of sales are taxed in state for all four service operations (the corporate headquarters, R&D facility, call center, and distribution center) in states with IPA sourcing. All property and payroll is located in the state, the greater proportion of income-producing activity is deemed to occur in the state, and all services are therefore considered as being performed in the state.

For states with benefit-based sourcing, we assume that all of the corporate headquarters' services are provided in state, but that none of the distribution center's services are. The corporate headquarters assumption means that all affiliates managed by the corporate office have their own headquarters in state as well. Our distribution center, by contrast, is modeled as being operated for a sole client, and that client is assumed to be out of state. Thus, the benefit is received by the client located in an out-of-state market.

Finally, we model the R&D facility and call center as providing services nationwide, and thus assume that customers are distributed among states in proportion with the U.S. population as a whole. The percentage of services provided in state, therefore, is equal to the percentage of the U.S. population located in a given state.

States that require service receipts be sourced based on where the benefit of the service is received generally do not offer direct guidance on R&D activities, call centers, or distribution companies. In states such as Iowa and Georgia, one can assume that call center business scenarios align with direct mail. In these states, the benefit is deemed received in the state to the extent the direct mail is sent to in-state addresses. Therefore, it appears reasonable to source receipts from call center services in state to the extent the calls were from or to in-state customers.

24 The sourcing rules described for Arizona are only applicable for MSPs electing to apportion using a hybrid market/IPA approach. Alabama, Illinois, and Massachusetts have throwout rules for service receipts which exclude sales from both the numerator and the denominator if the service receipt is attributable to a state where the taxpayer is not taxable. For model analysis, these states are treated "same as IPA" on the assumption that the business is not taxable in the states of out-of-state customers and therefore out-of-state sales are thrown out.

For R&D companies, it is not as evident where the benefit of the service is received because the benefit comes from whatever is produced as a result of the R&D. However, a few state statutes provide that the benefit will not be deemed received in a state where the customer does not have a fixed place of business. Therefore, if the R&D is performed in state A and the customer is headquartered in state B and has no presence in state A, receipts have been sourced to the customer location to be consistent with the market concept.

State Unemployment Insurance Tax

State unemployment insurance tax rates and base amounts were identified for new businesses as of April 30, 2014.[25] For rates that vary by industry, the rate that aligns with the business scenario under review is utilized based on NAICS code.

To calculate the state unemployment insurance liability, the new employer rate (including the add-ons) is multiplied by the lesser of unemployment insurance maximum pay or actual pay per employee which is then multiplied by the number of employees. Additions to state rates vary by state but may include items such as surcharges and fees.

State and Local Sales Tax

Sales tax rates are identified for two metropolitan areas per state.[26] The first location (Tier 1) is a major city in the state. The second location (Tier 2) is a mid-sized city in the state, generally with a population of less than 500,000. Sales tax rates are utilized from RIA reports as of April 30, 2014. Tier 1 cities are used to assess the corporate office, R&D, and retail business scenarios. Tier 2 cities are used to assess the call center, distribution center, and two manufacturing business scenarios. These rates were checked against RIA Checkpoint's published rates as of April 30, 2014.

Sales tax rates for each metro area were calculated by establishing the sum of the following three components for each of the 1-6 counties forming part of each metro area, and then averaging the total rates determined for each county:

- The state sales tax rate applicable to all locations in the state; plus
- The county (and/or district) sales tax rate applicable to each county; plus
- If the total sales tax rate in the central city varied from the initial metro average rate by more than 1.0%, then the municipal composition of the metro area was further reviewed to determine whether major cities also exist in the surrounding counties, and in such cases rates for these cities were also incorporated into the calculation of the final metro area average sales tax rate.

Note that Alaska, Delaware, Montana, New Hampshire and Oregon do not impose sales tax. Even though Alaska has no state-level sales tax, there is still local-level sales tax imposed in certain areas.

25 Sourced from RIA Checkpoint; Commerce Clearinghouse; state Department of Revenue websites, and conversations with representatives of states' Departments of Revenue.
26 Sourced from RIA Checkpoint.

The methodology used, averaging of rates, may not be as representative in Alabama because of the high local rates and thus the differential between a location outside the city and a location inside the city is 5 percent. The rate review assumes the greater metropolitan area covers both in-city and out-of-city locations. Similarly, it may not be highly representative in Missouri due to high local rates creating a significant differential between locations inside and outside of the city. The rate review assumes that the greater metropolitan area covers both in-city and out-of-city locations.

Florida has a local rate cap for transactions over $5,000. For certain transactions, only the first $5,000 of a taxable sale or purchase is subject to the county discretionary sales surtax. The limitation does not apply to commercial rentals, transient rentals or services.

Sales tax on leases were not considered.

Manufacturing Exemptions

Research was conducted to identify states that exempt machinery and equipment purchased for use in a manufacturing facility. In addition to research utilizing RIA Checkpoint, CCH, BNA, and Lexis Nexis, KPMG leveraged knowledge from its professional experience to verify researched conclusions and review new legislation.

For purposes of this study, it is assumed that all equipment purchased is directly used in the manufacturing process for 100 percent of its use. Sales tax exemptions were only considered for a manufacturer's purchase of machinery and equipment. The taxability of purchases of any other capital property was not reviewed.

Sales tax exemptions that are only offered to new or expanding facilities were only included as follows:

- For manufacturing machinery, statutory sales tax exemptions available for new or expanding manufacturers in Kentucky and North Dakota were included.
- Discretionary exemptions were not considered except for several states that clearly bundle sales tax exemption/rebate as part of their incentive packages. Nebraska is an example in this regard.

The analysis also reflects the fact that all states other than Hawaii exempt from sales tax the manufacturing of raw materials used in the production process.

Local Property Tax

Local property tax liability was reviewed for real and personal property in Tier 1 and Tier 2 locations.[27] Tier 1 cities are used to assess the corporate office, R&D, and retail business scenarios. Tier 2 cities are used to assess the call center, distribution center, and two manufacturing business scenarios.

27 Sourced from RIA Checkpoint; Commerce Clearinghouse; state Departments of Revenue and local government websites; and conversations with representatives of state and local property tax officials.

The tax is calculated by multiplying the assessment ratio times the millage rates; for locations that involved multiple jurisdictions (e.g., cities, counties, and/or school and other special districts) the millage rates were calculated as an average for various types of jurisdictions to reflect a representative rate for the location as a whole as opposed to the exact rate at a precise address. The tax calculation follows the same general approach as for local sales tax rates.

Property tax is reviewed on a multi-jurisdictional basis for Tier 1 and Tier 2 locations. Accordingly, instead of using exact locations, a blended property tax rate was utilized for the city and counties under review for the location. The final assessment ratio and millage rates thus constitutes an average of the property tax rates for the various types of jurisdictions in the counties included in the review.

In Tier 1 locations, a major city is identified and reviewed, with the millage rates for surrounding counties incorporated into the average. In order to properly account for the property tax rates in the surrounding counties, the county, school district, and other applicable rates are included. Often a city millage is not selected to be included in the millage since some of the businesses implicated in these scenarios would be located in more rural areas. There are exceptions to this assumption: for instance, in the case of Pennsylvania, a local jurisdiction was selected since counties in the state are divided into contiguous townships.

The analysis of real property tax rates includes land and buildings, while the personal property tax includes machinery, equipment, and inventory. If the state under review has a freeport exemption (a property tax exemption for property only warehoused in state en route to a final destination), the tax calculations are as follows based on a detailed review of the freeport provisions in each state:

- For Louisiana and Mississippi, freeport exemptions are quite limited and relate only to finished inventory in interstate transit. The only business scenario that could potentially qualify for freeport exemption is the distribution center, but the analysis assumes that the goods are inbound into the state and therefore are ineligible for freeport exemption. (This assumption also precludes the distribution center business scenario from any freeport benefits in the other freeport states noted below.)

- For Oklahoma and Texas, freeport exemptions have been applied to manufacturers' inventories, except for the small percentage of inventory deemed to be destined for sale to in-state customers.

- For Georgia, freeport exemptions have been applied to all manufacturers' inventories. In Georgia, the freeport exemption is a local option, and the exemption is available in the jurisdictions relevant to the Tier 2 city of Macon.

Local Business Income Tax and Business Privilege Tax

If a locality in the study imposes a local business income tax or business privilege tax, the rates were identified and included in the model.[28] Often a Tier 1 city imposes a business income tax, but cities in the surrounding counties do not. If multiple counties were reviewed for a Tier 1 location, only the business income tax of the major city was identified and applied to each of the business scenarios considered in the Tier 1 locations (corporate office, R&D, and retail).

Incentives

For new operations scenarios, the following business incentive programs were included, as relevant to each state: investment tax credits, job creation tax credits, employee withholding tax/payroll tax rebates, R&D tax credits, and property tax abatements.[29] Since this analysis does not pick specific sites or locations, any zone-based benefits (e.g. enterprise zones, economic development zones, benefit enhancements in distressed areas, etc.) have not been taken into consideration.

Financing programs have been excluded from the analysis, as have deal closing funds and other discretionary programs outside of withholding tax and payroll refund programs. If programs have a wage threshold, wage assumptions made as part of each of the hypothetical business scenarios were applied to determine the applicability of incentives.

In cases where analyzed incentive programs had discretionary components such as providing a sliding scale of benefits based on certain projects parameters, judgment calls were made in order to compute benefits. For example, for programs such as property tax abatements that may offer abatements for “up to 10 years for up to 100 percent,” estimated benefits were derived from conversations with local economic development professionals as well as KPMG’s experience assisting with implementing these programs. A similar approach was adopted for payroll withholding tax refunds with a sliding scale of benefits.

28 Sourced from RIA Checkpoint; Commerce Clearinghouse; State Departments of Revenue and local government websites; and conversations with representatives of state and local property tax officials.

29 Sourced from Commerce Clearinghouse; RIA Checkpoint; BNA; state and local economic development websites; and discussions with state and local economic development agencies.

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Joseph Henchman
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Scott Drenkard
Director of State Projects

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Economist

Jared Walczak
Policy Analyst

Publications

Melodie Bowler
Editor

Dan Carvajal
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KPMG Team

Hartley Powell
Principal

Ulrich Schmidt
Managing Director

Harley Duncan
Managing Director

Sarah McGahan
Senior Manager

David Padykula
Associate

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Tax Foundation
1325 G Street, NW Suite 950
Washington, DC 20005
202.464.6200

taxfoundation.org

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