



# 2021 State Business Tax Climate Index

Jared Walczak and Janelle Cammenga

October 21, 2020

The Tax Foundation's *State Business Tax Climate Index* enables business leaders, government policymakers, and taxpayers to gauge how their states' tax systems compare. While there are many ways to show *how much* is collected in taxes by state governments, the *Index* is designed to show *how well* states structure their tax systems and provides a road map for improvement.

The absence of a major tax is a common factor among many of the top 10 states. Property taxes and unemployment insurance taxes are levied in every state, but there are several states that do without one or more of the major taxes: the corporate income tax, the individual income tax, or the sales tax. Nevada, South Dakota, and Wyoming have no corporate or individual income tax (though Nevada imposes gross receipts taxes); Alaska has no individual income or state-level sales tax; Florida has no individual income tax; and New Hampshire and Montana have no sales tax.

This does not mean, however, that a state cannot rank in the top 10 while still levying all the major taxes. Indiana, North Carolina, and Utah, for example, levy all of the major tax types, but do so with low rates on broad bases.

The states in the bottom 10 tend to have a number of afflictions in common: complex, nonneutral taxes with comparatively high rates. New Jersey, for example, is hampered by some of the highest property tax burdens in the country, has the second highest-rate corporate and individual income taxes in the country and a particularly aggressive treatment of international income, levies an inheritance tax, and maintains some of the nation's worst-structured individual income taxes.

## **Florida**

Florida's corporate income tax rate declined from 5.5 to 4.4458 percent in September 2019, effective for tax years 2019-2021. This temporary reduction is the result of revenue triggers adopted in 2018, and enhanced revenue from corporate base broadening—the result of the federal Tax Cuts and Jobs Act (TCJA)—quickly met the 7 percent excess collections threshold required for a rate reduction. The lower rate does not change Florida's already enviable rank of 4th overall but does improve the state's corporate tax component rank from 9th to 6th.

## **Indiana**

The only state to make midyear rate adjustments, Indiana made another scheduled adjustment to its corporate income tax rate on July 1, 2020, the *Index*'s snapshot date, bringing the rate from 5.5 to 5.25 percent.<sup>[1]</sup> The rate reduction—two more are scheduled, ultimately bringing the rate to 4.9 percent in 2022—was enough to improve Indiana's rank from 10th to 9th overall.

## **Iowa**

On the corporate tax front, Iowa policymakers decoupled from IRC § 163(j), the net interest limitation, and fully decoupled from the Global Intangible Low-Taxed Income (GILTI) provision, which, when incorporated into state tax codes, leads to state taxation of international income. These changes improved Iowa's corporate component rank by two places. The state also, as part of the ongoing implementation of a larger tax reform package, increased the Section 179 expensing allowance from \$100,000 to \$1 million, matching the federal level, leading to a two-place improvement on the individual component rank as well. These reforms, taken together, drove Iowa's improvement from 45th to 40th on the *Index* overall.

### **Kansas**

Although Kansas has largely resisted tax conformity changes that would forgo any of the additional revenue associated with TCJA base broadening, the state's existing tax conformity laws led to the temporary adoption of the five-year net operating loss carryback provisions afforded by the Coronavirus Aid, Relief, and Economic Security (CARES) Act, dramatically—if temporarily—improving the state's otherwise stingy treatment of business losses. With this change, the state's corporate component rank rose from 35th to 31st, though the state's overall rank remains unchanged at 35th.

### **Missouri**

In 2018, Missouri adopted individual and corporate income tax reforms, set to phase in over time. Last year saw a significant reduction in the top rate of the individual income tax, from 5.9 to 5.4 percent, with smaller triggered reductions scheduled for future years until the rate declines to 5.1 percent. No additional rate cut has been triggered thus far. The corporate income tax reform package did, however, go into effect in 2020. The state no longer gives companies the option of choosing the apportionment formula most favorable to them, but this consolidation into a single apportionment formula paid down a significant corporate income tax rate reduction, from 6.25 to 4 percent, improving the state's rank on the corporate tax component from 5th to 3rd and allowing the state to improve from 15th to 12th on the *Index* overall.

### **New Jersey**

Two years ago, New Jersey lawmakers adopted a temporary corporate surtax, imposing an additional 2.5 percent atop the existing corporate income tax rate for companies with income of \$1 million or more, applicable for tax years 2018 and 2019, before dropping to 1.5 percent for 2020 and 2021. This year's partial rollback of the surtax, yielding a top rate of 10.5 percent (down from 11.5 percent), improved New Jersey one place on the corporate tax component, from 49th to 48th. The state remains 50th on the *Index* overall.

### **Oregon**

In May 2019, the Oregon legislature adopted a modified gross receipts tax, imposed at \$250 plus a rate of 0.57 percent on Oregon gross receipts above \$1 million. Taxpayers are permitted to subtract 35 percent of the greater of compensation or the cost of goods sold, putting it somewhere between Ohio's commercial activity tax and Texas' franchise ("margin") tax.<sup>[2]</sup> For comparison, Ohio's tax is imposed at a rate of 0.26 percent and the higher of Texas's two rates on its narrower-based tax is 0.75 percent. Oregon, which straddles the difference between the two rates, is now one of only two states, with Delaware, to impose both a corporate income tax

and a gross receipts tax. The new tax dropped the state 16 places on the corporate tax component, from 33rd to 49th, while the state's overall rank slipped from 8th to 15th.

## Introduction

Taxation is inevitable, but the specifics of a state's tax structure matter greatly. The measure of total taxes paid is relevant, but other elements of a state tax system can also enhance or harm the competitiveness of a state's business environment. The *State Business Tax Climate Index* distills many complex considerations to an easy-to-understand ranking.

The modern market is characterized by mobile capital and labor, with all types of businesses, small and large, tending to locate where they have the greatest competitive advantage. The evidence shows that states with the best tax systems will be the most competitive at attracting new businesses and most effective at generating economic and employment growth. It is true that taxes are but one factor in business decision-making. Other concerns also matter—such as access to raw materials or infrastructure or a skilled labor pool—but a simple, sensible tax system can positively impact business operations with regard to these resources. Furthermore, unlike changes to a state's health-care, transportation, or education systems, which can take decades to implement, changes to the tax code can quickly improve a state's business climate.

It is important to remember that even in our global economy, states' stiffest competition often comes from other states. The Department of Labor reports that most mass job relocations are from one U.S. state to another rather than to a foreign location.<sup>[3]</sup> Certainly, job creation is rapid overseas, as previously underdeveloped nations enter the world economy, though in the aftermath of federal tax reform, U.S. businesses no longer face the third-highest corporate tax rate in the world, but rather one in line with averages for industrialized nations.<sup>[4]</sup> State lawmakers are right to be concerned about how their states rank in the global competition for jobs and capital, but they need to be more concerned with companies moving from Detroit, Michigan, to Dayton, Ohio, than from Detroit to New Delhi, India. This means that state lawmakers must be aware of how their states' business climates match up against their immediate neighbors and to other regional competitor states.

Anecdotes about the impact of state tax systems on business investment are plentiful. In Illinois early last decade, hundreds of millions of dollars of capital investments were delayed when then-Governor Rod Blagojevich (D) proposed a hefty gross receipts tax.<sup>[5]</sup> Only when the legislature resoundingly defeated the bill did the investment resume. In 2005, California-based Intel decided to build a multibillion-dollar chip-making facility in Arizona due to its favorable corporate income tax system.<sup>[6]</sup> In 2010, Northrup Grumman chose to move its headquarters to Virginia over Maryland, citing the better business tax climate.<sup>[7]</sup> In 2015, General Electric and Aetna threatened to decamp from Connecticut if the governor signed a budget that would increase corporate tax burdens, and General Electric actually did so.<sup>[8]</sup> Anecdotes such as these reinforce what we know from economic theory: taxes matter to businesses, and those places with the most competitive tax systems will reap the benefits of business-friendly tax climates.

Tax competition is an unpleasant reality for state revenue and budget officials, but it is an effective restraint on state and local taxes. When a state imposes higher taxes than a neighboring state, businesses will cross the border to some extent. Therefore, states with more competitive tax systems score well in the *Index*, because they are best suited to generate economic growth.

State lawmakers are mindful of their states' business tax climates, but they are sometimes tempted to lure business with lucrative tax incentives and subsidies instead of broad-based tax reform. This can be a dangerous proposition, as the example of Dell Computers and North Carolina illustrates. North Carolina agreed to \$240 million worth of incentives to lure Dell to the state. Many of the incentives came in the form of tax credits from the state and local governments. Unfortunately, Dell announced in 2009 that it would be closing the plant after only four years of operations.<sup>[9]</sup> A 2007 *USA TODAY* article chronicled similar problems other states have had with companies that receive generous tax incentives.<sup>[10]</sup>

Lawmakers make these deals under the banner of job creation and economic development, but the truth is that if a state needs to offer such packages, it is most likely covering for an undesirable business tax climate. A far more effective approach is the systematic improvement of the state's business tax climate for the long term to improve the state's competitiveness. When assessing which changes to make, lawmakers need to remember two rules:

1. **Taxes matter to business.** Business taxes affect business decisions, job creation and retention, plant location, competitiveness, the transparency of the tax system, and the long-term health of a state's economy. Most importantly, taxes diminish profits. If taxes take a larger portion of profits, that cost is passed along to either consumers (through higher prices), employees (through lower wages or fewer jobs), or shareholders (through lower dividends or share value), or some combination of the above. Thus, a state with lower tax costs will be more attractive to business investment and more likely to experience economic growth.
2. **States do not enact tax changes (increases or cuts) in a vacuum.** Every tax law will in some way change a state's competitive position relative to its immediate neighbors, its region, and even globally. Ultimately, it will affect the state's national standing as a place to live and to do business. Entrepreneurial states can take advantage of the tax increases of their neighbors to lure businesses out of high-tax states.

To some extent, tax-induced economic distortions are a fact of life, but policymakers should strive to maximize the occasions when businesses and individuals are guided by business principles and minimize those cases where economic decisions are influenced, micromanaged, or even dictated by a tax system. The more riddled a tax system is with politically motivated preferences, the less likely it is that business decisions will be made in response to market forces. The *Index* rewards those states that minimize tax-induced economic distortions.

Ranking the competitiveness of 50 very different tax systems presents many challenges, especially when a state dispenses with a major tax entirely. Should Indiana's tax system, which includes three relatively neutral taxes on sales, individual income, and corporate income, be considered more or less competitive than Alaska's tax system, which includes a particularly burdensome corporate income tax but no statewide tax on individual income or sales?

The *Index* deals with such questions by comparing the states on more than 120 variables in the five major areas of taxation (corporate taxes, individual income taxes, sales taxes, unemployment insurance taxes, and property taxes) and then adding the results to yield a final, overall ranking. This approach rewards states on particularly strong aspects of their tax systems (or penalizes them on particularly weak aspects), while measuring the general competitiveness of their overall

tax systems. The result is a score that can be compared to other states' scores. Ultimately, both Alaska and Indiana score well.

## **Literature Review**

Economists have not always agreed on how individuals and businesses react to taxes. As early as 1956, Charles Tiebout postulated that if citizens were faced with an array of communities that offered different types or levels of public goods and services at different costs or tax levels, then all citizens would choose the community that best satisfied their particular demands, revealing their preferences by "voting with their feet." Tiebout's article is the seminal work on the topic of how taxes affect the location decisions of taxpayers.

Tiebout suggested that citizens with high demands for public goods would concentrate in communities with high levels of public services and high taxes while those with low demands would choose communities with low levels of public services and low taxes. Competition among jurisdictions results in a variety of communities, each with residents who all value public services similarly.

However, businesses sort out the costs and benefits of taxes differently from individuals. For businesses, which can be more mobile and must earn profits to justify their existence, taxes reduce profitability. Theoretically, businesses could be expected to be more responsive than individuals to the lure of low-tax jurisdictions. Research suggests that corporations engage in "yardstick competition," comparing the costs of government services across jurisdictions. Shleifer (1985) first proposed comparing regulated franchises in order to determine efficiency. Salmon (1987) extended Shleifer's work to look at subnational governments. Besley and Case (1995) showed that "yardstick competition" affects voting behavior, and Bosch and Sole-Olle (2006) further confirmed the results found by Besley and Case. Tax changes that are out of sync with neighboring jurisdictions will impact voting behavior.

The economic literature over the past 50 years has slowly cohered around this hypothesis. Ladd (1998) summarizes the post-World War II empirical tax research literature in an excellent survey article, breaking it down into three distinct periods of differing ideas about taxation: (1) taxes do not change behavior; (2) taxes may or may not change business behavior depending on the circumstances; and (3) taxes definitely change behavior.

Period one, with the exception of Tiebout, included the 1950s, 1960s, and 1970s and is summarized succinctly in three survey articles: Due (1961), Oakland (1978), and Wasylenko (1981). Due's was a polemic against tax giveaways to businesses, and his analytical techniques consisted of basic correlations, interview studies, and the examination of taxes relative to other costs. He found no evidence to support the notion that taxes influence business location. Oakland was skeptical of the assertion that tax differentials at the local level had no influence at all. However, because econometric analysis was relatively unsophisticated at the time, he found no significant articles to support his intuition. Wasylenko's survey of the literature found some of the first evidence indicating that taxes do influence business location decisions. However, the statistical significance was lower than that of other factors such as labor supply and agglomeration economies. Therefore, he dismissed taxes as a secondary factor at most.

Period two was a brief transition during the early- to mid-1980s. This was a time of great ferment in tax policy as Congress passed major tax bills, including the so-called Reagan tax cut in 1981

and a dramatic reform of the federal tax code in 1986. Articles revealing the economic significance of tax policy proliferated and became more sophisticated. For example, Wasylenko and McGuire (1985) extended the traditional business location literature to nonmanufacturing sectors and found, “Higher wages, utility prices, personal income tax rates, and an increase in the overall level of taxation discourage employment growth in several industries.” However, Newman and Sullivan (1988) still found a mixed bag in “their observation that significant tax effects [only] emerged when models were carefully specified.”

Ladd was writing in 1998, so her “period three” started in the late 1980s and continued up to 1998, when the quantity and quality of articles increased significantly. Articles that fit into period three begin to surface as early as 1985, as Helms (1985) and Bartik (1985) put forth forceful arguments based on empirical research that taxes guide business decisions. Helms concluded that a state’s ability to attract, retain, and encourage business activity is significantly affected by its pattern of taxation. Furthermore, tax increases significantly retard economic growth when the revenue is used to fund transfer payments. Bartik concluded that the conventional view that state and local taxes have little effect on business is false.

Papke and Papke (1986) found that tax differentials among locations may be an important business location factor, concluding that consistently high business taxes can represent a hindrance to the location of industry. Interestingly, they use the same type of after-tax model used by Tannenwald (1996), who reaches a different conclusion.

Bartik (1989) provides strong evidence that taxes have a negative impact on business start-ups. He finds specifically that property taxes, because they are paid regardless of profit, have the strongest negative effect on business. Bartik’s econometric model also predicts tax elasticities of -0.1 to -0.5 that imply a 10 percent cut in tax rates will increase business activity by 1 to 5 percent. Bartik’s findings, as well as those of Mark, McGuire, and Papke (2000), and ample anecdotal evidence of the importance of property taxes, buttress the argument for inclusion of a property index devoted to property-type taxes in the *Index*.

By the early 1990s, the literature had expanded sufficiently for Bartik (1991) to identify 57 studies on which to base his literature survey. Ladd succinctly summarizes Bartik’s findings:

*The large number of studies permitted Bartik to take a different approach from the other authors. Instead of dwelling on the results and limitations of each individual study, he looked at them in the aggregate and in groups. Although he acknowledged potential criticisms of individual studies, he convincingly argued that some systematic flaw would have to cut across all studies for the consensus results to be invalid. In striking contrast to previous reviewers, he concluded that taxes have quite large and significant effects on business activity.*

Ladd’s “period three” surely continues to this day. Agostini and Tulayasathien (2001) examined the effects of corporate income taxes on the location of foreign direct investment in U.S. states. They determined that for “foreign investors, the corporate tax rate is the most relevant tax in their investment decision.” Therefore, they found that foreign direct investment was quite sensitive to states’ corporate tax rates.

Mark, McGuire, and Papke (2000) found that taxes are a statistically significant factor in private-sector job growth. Specifically, they found that personal property taxes and sales taxes have economically large negative effects on the annual growth of private employment.

Harden and Hoyt (2003) point to Phillips and Gross (1995) as another study contending that taxes impact state economic growth, and they assert that the consensus among recent literature is that state and local taxes negatively affect employment levels. Harden and Hoyt conclude that the corporate income tax has the most significant negative impact on the rate of growth in employment.

Gupta and Hofmann (2003) regressed capital expenditures against a variety of factors, including weights of apportionment formulas, the number of tax incentives, and burden figures. Their model covered 14 years of data and determined that firms tend to locate property in states where they are subject to lower income tax burdens. Furthermore, Gupta and Hofmann suggest that throwback requirements are the most influential on the location of capital investment, followed by apportionment weights and tax rates, and that investment-related incentives have the least impact.

Other economists have found that taxes on specific products can produce behavioral results similar to those that were found in these general studies. For example, Fleenor (1998) looked at the effect of excise tax differentials between states on cross-border shopping and the smuggling of cigarettes. Moody and Warcholik (2004) examined the cross-border effects of beer excises. Their results, supported by the literature in both cases, showed significant cross-border shopping and smuggling between low-tax states and high-tax states.

Fleenor found that shopping areas sprouted in counties of low-tax states that shared a border with a high-tax state, and that approximately 13.3 percent of the cigarettes consumed in the United States during FY 1997 were procured via some type of cross-border activity. Similarly, Moody and Warcholik found that in 2000, 19.9 million cases of beer, on net, moved from low- to high-tax states. This amounted to some \$40 million in sales and excise tax revenue lost in high-tax states.

Although the literature has largely congealed around a general consensus that taxes are a substantial factor in the decision-making process for businesses, disputes remain, and some scholars are unconvinced.

Based on a substantial review of the literature on business climates and taxes, Wasylenko (1997) concludes that taxes do not appear to have a substantial effect on economic activity among states. However, his conclusion is premised on there being few significant differences in state tax systems. He concedes that high-tax states will lose economic activity to average or low-tax states “as long as the elasticity is negative and significantly different from zero.” Indeed, he approvingly cites a *State Policy Reports* article that finds that the highest-tax states, such as Minnesota, Wisconsin, and New York, have acknowledged that high taxes may be responsible for the low rates of job creation in those states.<sup>[11]</sup>

Wasylenko’s rejoinder is that policymakers routinely overestimate the degree to which tax policy affects business location decisions and that as a result of this misperception, they respond readily to public pressure for jobs and economic growth by proposing lower taxes. According to Wasylenko, other legislative actions are likely to accomplish more positive economic results because in reality, taxes do not drive economic growth.

However, there is ample evidence that states compete for businesses using their tax systems. A recent example comes from Illinois, where in early 2011 lawmakers passed two major tax

increases. The individual income tax rate increased from 3 percent to 5 percent, and the corporate income tax rate rose from 7.3 percent to 9.5 percent.<sup>[12]</sup> The result was that many businesses threatened to leave the state, including some very high-profile Illinois companies such as Sears and the Chicago Mercantile Exchange. By the end of the year, lawmakers had cut deals with both firms, totaling \$235 million over the next decade, to keep them from leaving the state.<sup>[13]</sup>

A new literature review, Kleven et al. (2019), summarizes recent evidence for tax-driven migration. Meanwhile, Giroud and Rauh (2019) use microdata on multistate firms to estimate the impact of state taxes on business activity, and find that C corporation employment and establishments have short-run corporate tax elasticities of -0.4 to -0.5, while pass-through entities show elasticities of -0.2 to -0.4, meaning that, for each percentage-point increase in the rate, employment decreases by 0.4 to 0.5 percent for C corporations subject to the corporate income tax, and by 0.2 to 0.4 percent within pass-through businesses subject to the individual income tax.

### **Measuring the Impact of Tax Differentials**

Some recent contributions to the literature on state taxation criticize business and tax climate studies in general.<sup>[14]</sup> Authors of such studies contend that comparative reports like the *State Business Tax Climate Index* do not take into account those factors which directly impact a state's business climate. However, a careful examination of these criticisms reveals that the authors believe taxes are unimportant to businesses and therefore dismiss the studies as merely being designed to advocate low taxes.

Peter Fisher's *Grading Places: What Do the Business Climate Rankings Really Tell Us?* now published by Good Jobs First, criticizes four indices: The *U.S. Business Policy Index* published by the Small Business and Entrepreneurship Council, Beacon Hill's *Competitiveness Report*, the American Legislative Exchange Council's *Rich States, Poor States*, and this study. The first edition also critiqued the Cato Institute's *Fiscal Policy Report Card* and the *Economic Freedom Index* by the Pacific Research Institute. In the report's first edition, published before Fisher summarized his objections: "The underlying problem with the ... indexes, of course, is twofold: none of them actually do a very good job of measuring what it is they claim to measure, and they do not, for the most part, set out to measure the right things to begin with" (Fisher 2005). In the second edition, he identified three overarching questions: (1) whether the indices included relevant variables, and only relevant variables; (2) whether these variables measured what they purport to measure; and (3) how the index combines these measures into a single index number (Fisher 2013). Fisher's primary argument is that if the indexes did what they purported to do, then all five would rank the states similarly.

Fisher's conclusion holds little weight because the five indices serve such dissimilar purposes, and each group has a different area of expertise. There is no reason to believe that the Tax Foundation's *Index*, which depends entirely on state tax laws, would rank the states in the same or similar order as an index that includes crime rates, electricity costs, and health care (the Small Business and Entrepreneurship Council's *Small Business Survival Index*), or infant mortality rates and the percentage of adults in the workforce (Beacon Hill's *State Competitiveness Report*), or charter schools, tort reform, and minimum wage laws (the Pacific Research Institute's *Economic Freedom Index*).



The Tax Foundation's *State Business Tax Climate Index* is an indicator of which states' tax systems are the most hospitable to business and economic growth. The *Index* does not purport to measure economic opportunity or freedom, or even the broad business climate, but rather the narrower business tax climate, and its variables reflect this focus. We do so not only because the Tax Foundation's expertise is in taxes, but because every component of the *Index* is subject to immediate change by state lawmakers. It is by no means clear what the best course of action is for state lawmakers who want to thwart crime, for example, either in the short or long term, but they can change their tax codes now. Contrary to Fisher's 1970s' view that the effects of taxes are "small or non-existent," our study reflects strong evidence that business decisions are significantly impacted by tax considerations.

Although Fisher does not feel tax climates are important to states' economic growth, other authors contend the opposite. Bittlingmayer, Eathington, Hall, and Orazem (2005) find in their analysis of several business climate studies that a state's tax climate does affect its economic growth rate and that several indices are able to predict growth. Specifically, they concluded, "The *State Business Tax Climate Index* explains growth consistently." This finding was confirmed by Anderson (2006) in a study for the Michigan House of Representatives, and more recently by Kolko, Neumark, and Mejia (2013), who, in an analysis of the ability of 10 business climate indices to predict economic growth, concluded that the *State Business Tax Climate Index* yields "positive, sizable, and statistically significant estimates for every specification" they measured, and specifically cited the *Index* as one of two business climate indices (out of 10) with particularly strong and robust evidence of predictive power.

Bittlingmayer et al. also found that relative tax competitiveness matters, especially at the borders, and therefore, indices that place a high premium on tax policies do a better job of explaining growth. They also observed that studies focused on a single topic do better at explaining economic growth at borders. Lastly, the article concludes that the most important elements of the business climate are tax and regulatory burdens on business (Bittlingmayer et al. 2005). These findings support the argument that taxes impact business decisions and economic growth, and they support the validity of the *Index*.

Fisher and Bittlingmayer et al. hold opposing views about the impact of taxes on economic growth. Fisher finds support from Robert Tannenwald, formerly of the Boston Federal Reserve, who argues that taxes are not as important to businesses as public expenditures. Tannenwald compares 22 states by measuring the after-tax rate of return to cash flow of a new facility built by a representative firm in each state. This very different approach attempts to compute the marginal effective tax rate of a hypothetical firm and yields results that make taxes appear trivial.

The taxes paid by businesses should be a concern to everyone because they are ultimately borne by individuals through lower wages, increased prices, and decreased shareholder value. States do not institute tax policy in a vacuum. Every change to a state's tax system makes its business tax climate more or less competitive compared to other states and makes the state more or less attractive to business. Ultimately, anecdotal and empirical evidence, along with the cohesion of recent literature around the conclusion that taxes matter a great deal to business, show that the *Index* is an important and useful tool for policymakers who want to make their states' tax systems welcoming to business.

## **Methodology**

The Tax Foundation's *State Business Tax Climate Index* is a hierarchical structure built from five components:

- Individual Income Tax
- Sales Tax
- Corporate Income Tax
- Property Tax
- Unemployment Insurance Tax

Using the economic literature as our guide, we designed these five components to score each state's business tax climate on a scale of 0 (worst) to 10 (best). Each component is devoted to a major area of state taxation and includes numerous variables. Overall, there are 124 variables measured in this report.

The five components are not weighted equally, as they are in some indices. Rather, each component is weighted based on the variability of the 50 states' scores from the mean. The standard deviation of each component is calculated and a weight for each component is created from that measure. The result is a heavier weighting of those components with greater variability. The weighting of each of the five major components is:

- 30.5% — Individual Income Tax
- 24.4% — Sales Tax
- 20.8% — Corporate Tax
- 14.8% — Property Tax
- 9.4% — Unemployment Insurance Tax

This improves the explanatory power of the *State Business Tax Climate Index* as a whole, because components with higher standard deviations are those areas of tax law where some states have significant competitive advantages. Businesses that are comparing states for new or expanded locations must give greater emphasis to tax climates when the differences are large. On the other hand, components in which the 50 state scores are clustered together, closely distributed around the mean, are those areas of tax law where businesses are more likely to de-emphasize tax factors in their location decisions. For example, Delaware is known to have a significant advantage in sales tax competition, because its tax rate of zero attracts businesses and shoppers from all over the Mid-Atlantic region. That advantage and its drawing power increase every time another state raises its sales tax.

In contrast with this variability in state sales tax rates, unemployment insurance tax systems are similar around the nation, so a small change in one state's law could change its component ranking dramatically.

Within each component are two equally weighted subindices devoted to measuring the impact of the tax rates and the tax bases. Each subindex is composed of one or more variables. There are two types of variables: scalar variables and dummy variables. A scalar variable is one that can have any value between 0 and 10. If a subindex is composed only of scalar variables, then they

are weighted equally. A dummy variable is one that has only a value of 0 or 1. For example, a state either indexes its brackets for inflation or does not. Mixing scalar and dummy variables within a subindex is problematic, because the extreme valuation of a dummy can overly influence the results of the subindex. To counter this effect, the *Index* generally weights scalar variables 80 percent and dummy variables 20 percent.

### **Relative versus Absolute Indexing**

The *State Business Tax Climate Index* is designed as a relative index rather than an absolute or ideal index. In other words, each variable is ranked relative to the variable's range in other states. The relative scoring scale is from 0 to 10, with zero meaning not "worst possible" but rather worst among the 50 states.

Many states' tax rates are so close to each other that an absolute index would not provide enough information about the differences among the states' tax systems, especially for pragmatic business owners who want to know which states have the best tax system in each region.

**Comparing States without a Tax.** One problem associated with a relative scale is that it is mathematically impossible to compare states with a given tax to states that do not have the tax. As a zero rate is the lowest possible rate and the most neutral base, since it creates the most favorable tax climate for economic growth, those states with a zero rate on individual income, corporate income, or sales gain an immense competitive advantage. Therefore, states without a given tax generally receive a 10, and the *Index* measures all the other states against each other.

Three notable exceptions to this rule exist. The first is in Washington and Texas, which do not have taxes on wage income but do apply their gross receipts taxes to limited liability corporations (LLCs) and S corporations. Because these entities are generally taxed through the individual code, these two states do not score perfectly in the individual income tax component. The second exception is found in Nevada, where a payroll tax (for purposes other than unemployment insurance) is also included in the individual income tax component. (Nevada likewise imposes a gross receipts tax, called the Commerce Tax.) The final exception is in zero sales tax states—Alaska, Montana, New Hampshire, Oregon, and Washington—which do not have general sales taxes but still do not score a perfect 10 in that component section because of excise taxes on gasoline, beer, spirits, and cigarettes, which are included in that section. Alaska, moreover, forgoes a state sales tax, but does permit local option sales taxes.

**Normalizing Final Scores.** Another problem with using a relative scale within the components is that the average scores across the five components vary. This alters the value of not having a given tax across major indices. For example, the unadjusted average score of the corporate income tax component is 6.92 while the average score of the sales tax component is 5.35.

In order to solve this problem, scores on the five major components are "normalized," which brings the average score for all of them to 5.00, excluding states that do not have the given tax. This is accomplished by multiplying each state's score by a constant value.

Once the scores are normalized, it is possible to compare states across indices. For example, because of normalization, it is possible to say that Connecticut's score of 5.12 on corporate income taxes is better than its score of 4.76 on the sales tax.

### **Time Frame Measured by the *Index* (Snapshot Date)**

Starting with the 2006 edition, the *Index* has measured each state’s business tax climate as it stands at the beginning of the standard state fiscal year, July 1. Therefore, this edition is the 2021 *Index* and represents the tax climate of each state as of July 1, 2020, the first day of fiscal year 2021 for most states.

## **District of Columbia**

The District of Columbia (D.C.) is only included as an exhibit and its scores and “phantom ranks” offered do not affect the scores or ranks of other states.

## **2021 Changes to Methodology**

The 2021 edition of the *Index* introduces new variables to the property tax base subindex, accounting for split roll property taxation and property tax limitations. These additions are intended to provide more nuance to the *Index*’s treatment of the real property tax base, in addition to existing variables on the taxation of tangible and intangible personal property and other classes of property or wealth, including estate, inheritance, and gift taxes.

States vary considerably in their treatment of different classes of property—residential, agricultural, commercial, industrial, etc. Sometimes, local governments are permitted to establish different rates on different classes of property. More frequently, differential treatment is accomplished through assessment ratios, where different percentages of a property’s market value are subject to taxation based on its class. Commercial property might, for instance, have an assessment ratio of 50 percent, while residential property faces a 25 percent assessment ratio—meaning that, with the same rate applied to both, commercial properties face twice the effective rate of residential properties. Such differentials divide the property tax roll by class, creating what is known as a “split roll” property tax system. The *Index* now includes a dummy variable on the existence of a split roll, as well as a variable measuring the ratio between commercial and residential effective rates.

The *Index* now takes property tax limitation regimes into account as well. Nearly all states impose some sort of restriction on local governments’ ability to raise property taxes, but these limitation regimes vary dramatically. In broad terms, they take on a tripartite typology: assessment, rate, and levy limits. Assessment limits restrict the rate at which a given property’s assessed value can increase each year. They often, but not always, reset upon sale or change of use, and sometimes reset when substantial improvements are made. Rate limits either cap the allowable rate or restrict the amount by which the rate can be raised in a given year. Levy limits impose a restriction on the growth of total collections (excluding those from new construction), implementing or necessitating rate reductions if revenues exceed the allowable growth rate. Most limitation regimes permit voter overrides.

Assessment limits distort property taxation, leading to similar properties facing highly disparate effective rates of taxation and influencing decisions about property utilization. Rate and levy limits, by contrast, maintain tax neutrality while restricting—with varying degrees of rigidity—the growth of property tax burdens. The *Index* now includes two dummy variables, one penalizing states for imposing assessment limitations and the other rewarding states for adopting either a rate or levy limit, or both.

## **Past Rankings and Scores**

This report includes 2014-2020 *Index* rankings that can be used for comparison with the 2021 rankings and scores. These can differ from previously published *Index* rankings and scores due to enactment of retroactive statutes, backcasting of the above methodological changes, and corrections to variables brought to our attention since the last report was published. The scores and rankings in this report are definitive.

## **Corporate Tax**

This component measures the impact of each state's principal tax on business activities and accounts for 20.8 percent of each state's total score. It is well established that the extent of business taxation can affect a business's level of economic activity within a state. For example, Newman (1982) found that differentials in state corporate income taxes were a major factor influencing the movement of industry to Southern states. Two decades later, with global investment greatly expanded, Agostini and Tulayasathien (2001) determined that a state's corporate tax rate is the most relevant tax in the investment decisions of foreign investors.

Most states levy standard corporate income taxes on profit (gross receipts minus expenses). Some states, however, problematically impose taxes on the gross receipts of businesses with few or no deductions for expenses. Between 2005 and 2010, for example, Ohio phased in the Commercial Activities Tax (CAT), which has a rate of 0.26 percent. Washington has the Business and Occupation (B&O) Tax, which is a multi-rate tax (depending on industry) on the gross receipts of Washington businesses. Delaware has a similar Manufacturers' and Merchants' License Tax, as does Virginia with its locally-levied Business/Professional/Occupational License (BPOL) tax and West Virginia with its local Business & Occupation (B&O) tax. Texas also added the Margin Tax, a complicated gross receipts tax, in 2007, Nevada adopted the gross receipts-based multi-rate Commerce Tax in 2015, and Oregon implemented a new modified gross receipts tax this year. However, in 2011, Michigan passed a significant corporate tax reform that eliminated the state's modified gross receipts tax and replaced it with a 6 percent corporate income tax, effective January 1, 2012.<sup>[15]</sup> The previous tax had been in place since 2007, and Michigan's repeal followed others in Kentucky (2006) and New Jersey (2006). Several states contemplated gross receipts taxes in 2017, but none were adopted.

Since gross receipts taxes and corporate income taxes are levied on different bases, we separately compare gross receipts taxes to each other, and corporate income taxes to each other, in the *Index*.

For states with corporate income taxes, the corporate tax rate subindex is calculated by assessing three key areas: the top tax rate, the level of taxable income at which the top rate kicks in, and the number of brackets. States that levy neither a corporate income tax nor a gross receipts tax achieve a perfectly neutral system in regard to business income and thus receive a perfect score.

States that do impose a corporate tax generally will score well if they have a low rate. States with a high rate or a complex and multiple-rate system score poorly.

To calculate the parallel subindex for the corporate tax base, three broad areas are assessed: tax credits, treatment of net operating losses, and an "other" category that includes variables such as conformity to the Internal Revenue Code, protections against double taxation, and the taxation of "throwback" income, among others. States that score well on the corporate tax base subindex generally will have few business tax credits, generous carryback and carryforward provisions,

deductions for net operating losses, conformity to the Internal Revenue Code, and provisions that alleviate double taxation.

### **Corporate Tax Rate**

The corporate tax rate subindex is designed to gauge how a state's corporate income tax top marginal rate, bracket structure, and gross receipts rate affect its competitiveness compared to other states, as the extent of taxation can affect a business's level of economic activity within a state (Newman 1982).

A state's corporate tax is levied in addition to the federal corporate income tax of 21 percent, substantially reduced by the Tax Cuts and Jobs Act of 2017 from a graduated-rate tax with a top rate of 35 percent, the highest rate among industrialized nations. Two states levy neither a corporate income tax nor a gross receipts tax: South Dakota and Wyoming. These states automatically score a perfect 10 on this subindex. Therefore, this section ranks the remaining 48 states relative to each other.

**Top Tax Rate.** Iowa's 12 percent corporate income tax rate qualifies for the worst ranking among states that levy one, followed by New Jersey's 10.5 percent rate (including a surcharge, which declined this year). Other states with comparatively high corporate income tax rates are Pennsylvania (9.99 percent), Minnesota (9.8 percent), Alaska (9.4 percent), and California (8.84 percent). By contrast, North Carolina's rate of 2.5 percent is the lowest nationally, followed by Missouri's at 4 percent, North Dakota's at 4.31 percent, and Florida at 4.458 percent. Other states with comparatively low top corporate tax rates are Colorado (4.63 percent), Arizona (4.9 percent), Utah (4.95 percent), and Kentucky, Mississippi, and South Carolina, all at 5 percent.

**Graduated Rate Structure.** Two variables are used to assess the economic drag created by multiple-rate corporate income tax systems: the income level at which the highest tax rate starts to apply and the number of tax brackets. Twenty-nine states and the District of Columbia have single-rate systems, and they score best. Single-rate systems are consistent with the sound tax principles of simplicity and neutrality. In contrast to the individual income tax, there is no meaningful "ability to pay" concept in corporate taxation. Jeffery Kwall, the Kathleen and Bernard Beazley Professor of Law at Loyola University Chicago School of Law, notes that

*graduated corporate rates are inequitable—that is, the size of a corporation bears no necessary relation to the income levels of the owners. Indeed, low-income corporations may be owned by individuals with high incomes, and high-income corporations may be owned by individuals with low incomes.*<sup>1161</sup>

A single-rate system minimizes the incentive for firms to engage in expensive, counterproductive tax planning to mitigate the damage of higher marginal tax rates that some states levy as taxable income rises.

**The Top Bracket.** This variable measures how soon a state's tax system applies its highest corporate income tax rate. The highest score is awarded to a single-rate system that has one bracket that applies to the first dollar of taxable income. Next best is a two-bracket system where the top rate kicks in at a low level of income, since the lower the top rate kicks in, the more the system is like a flat tax. States with multiple brackets spread over a broad income spectrum are given the worst score.

**Number of Brackets.** An income tax system creates changes in behavior when the taxpayer's income reaches the end of one tax rate bracket and moves into a higher bracket. At such a break point, incentives change, and as a result, numerous rate changes are more economically harmful than a single-rate structure. This variable is intended to measure the disincentive effect the corporate income tax has on rising incomes. States that score the best on this variable are the 30 states—and the District of Columbia—that have a single-rate system. Alaska's 10-bracket system earns the worst score in this category. Other states with multi-bracket systems include Arkansas (six brackets) and Louisiana (five brackets).

### **Corporate Tax Base**

This subindex measures the economic impact of each state's definition of what should be subject to corporate taxation.

The three criteria used to measure the competitiveness of each state's corporate tax base are given equal weight: the availability of certain credits, deductions, and exemptions; the ability of taxpayers to deduct net operating losses; and a host of smaller tax base issues that combine to make up the other third of the corporate tax base subindex.

Under a gross receipts tax, some of these tax base criteria (net operating losses and some corporate income tax base variables) are replaced by the availability of deductions from gross receipts for employee compensation costs and cost of goods sold. States are rewarded for granting these deductions because they diminish the greatest disadvantage of using gross receipts as the base for corporate taxation: the uneven effective tax rates that various industries pay, depending on how many levels of production are hit by the tax.

**Net Operating Losses.** The corporate income tax is designed to tax only the profits of a corporation. However, a yearly profit snapshot may not fully capture a corporation's true profitability. For example, a corporation in a highly cyclical industry may look very profitable during boom years but lose substantial amounts during bust years. When examined over the entire business cycle, the corporation may actually have an average profit margin.

The deduction for net operating losses (NOL) helps ensure that, over time, the corporate income tax is a tax on average profitability. Without the NOL deduction, corporations in cyclical industries pay much higher taxes than those in stable industries, even assuming identical average profits over time. Simply put, the NOL deduction helps level the playing field among cyclical and noncyclical industries. Under the Tax Cuts and Jobs Act, the federal government allows losses to be carried forward indefinitely, though they may only reduce taxable income by 80 percent in any given year. Because gross receipts taxes inherently preclude the possibility of carrying net operating losses backward or forward, the *Index* treats states with statewide gross receipts taxes as having the equivalent of no NOL carryback or carryforward provisions.

**Number of Years Allowed for Carryback and Carryforward.** This variable measures the number of years allowed on a carryback or carryforward of an NOL deduction. The longer the overall time span, the higher the probability that the corporate income tax is being levied on the corporation's average profitability. Generally, states entered FY 2021 with better treatment of the carryforward (up to a maximum of 20 years) than the carryback (up to a maximum of three years). States score well on the *Index* if they conform to the new federal provisions or provide their own robust system of carryforwards and carrybacks.

**Caps on the Amount of Carryback and Carryforward.** When companies have a larger NOL than they can deduct in one year, most states permit them to carry deductions of any amount back to previous years' returns or forward to future returns. States that limit those amounts are ranked lower in the *Index*. Two states, Idaho and Montana, limit the amount of carrybacks, though they do better than many of their peers in offering any carryback provisions at all. Of states that allow a carryforward of losses, only New Hampshire and Pennsylvania limit carryforwards. As a result, these states score poorly on this variable.

**Gross Receipts Tax Deductions.** Proponents of gross receipts taxation invariably praise the steadier flow of tax receipts into government coffers in comparison with the fluctuating revenue generated by corporate income taxes, but this stability comes at a great cost. The attractively low statutory rates associated with gross receipts taxes are an illusion. Since gross receipts taxes are levied many times in the production process, the effective tax rate on a product is much higher than the statutory rate would suggest. Effective tax rates under a gross receipts tax vary dramatically by industry or individual business, a stark departure from the principle of tax neutrality. Firms with few steps in their production chain are relatively lightly taxed under a gross receipts tax, and vertically-integrated, high-margin firms prosper, while firms with longer production chains are exposed to a substantially higher tax burden. The pressure of this economic imbalance often leads lawmakers to enact separate rates for each industry, an inevitably unfair and inefficient process.

Two reforms that states can make to mitigate this damage are to permit deductions from gross receipts for employee compensation costs and cost of goods sold, effectively moving toward a regular corporate income tax.

Delaware, Nevada, Ohio, Oregon, and Washington score the worst, because their gross receipts taxes do not offer full deductions for either the cost of goods sold or employee compensation. Texas offers a deduction for either the cost of goods sold or employee compensation but not both. The Virginia BPOL tax, the West Virginia B&O, and the Pennsylvania business privilege tax are not included in this survey, because they are assessed at the local level and not levied uniformly across the state.

**Federal Income Used as State Tax Base.** States that use federal definitions of income reduce the tax compliance burden on their taxpayers. Two states (Arkansas and Mississippi) do not conform to federal definitions of corporate income and they score poorly.

**Allowance of Federal ACRS and MACRS Depreciation.** The vast array of federal depreciation schedules is, by itself, a tax complexity nightmare for businesses. The specter of having 50 different schedules would be a disaster from a tax complexity standpoint. This variable measures the degree to which states have adopted the federal Accelerated Cost Recovery System (ACRS) and Modified Accelerated Cost Recovery System (MACRS) depreciation schedules. One state (California) adds complexity by failing to fully conform to the federal system.

**Deductibility of Depletion.** The deduction for depletion works similarly to depreciation, but it applies to natural resources. As with depreciation, tax complexity would be staggering if all 50 states imposed their own depletion schedules. This variable measures the degree to which states have adopted the federal depletion schedules. Thirteen states are penalized because they do not



fully conform to the federal system: Alaska, California, Delaware, Iowa, Louisiana, Maryland, Minnesota, Mississippi, New Hampshire, North Carolina, Oklahoma, Oregon, and Tennessee.

**Alternative Minimum Tax.** The federal Alternative Minimum Tax (AMT) was created to ensure that all taxpayers paid some minimum level of taxes every year. Unfortunately, it does so by creating a parallel tax system to the standard corporate income tax code. Evidence shows that the AMT does not increase efficiency or improve fairness in any meaningful way. It nets little money for the government, imposes compliance costs that in some years are actually larger than collections, and encourages firms to cut back or shift their investments (Chorvat and Knoll, 2002). As such, states that have mimicked the federal AMT put themselves at a competitive disadvantage through needless tax complexity.

Five states have an AMT on corporations and thus score poorly: California, Iowa, Kentucky, Minnesota, and New Hampshire.

**Deductibility of Taxes Paid.** This variable measures the extent of double taxation on income used to pay foreign taxes, i.e., paying a tax on money the taxpayer has already mailed to foreign taxing authorities. States can avoid this double taxation by allowing the deduction of taxes paid to foreign jurisdictions. Twenty-three states allow deductions for foreign taxes paid and score well. The remaining states with corporate income taxation do not allow deductions for foreign taxes paid and thus score poorly.

**Indexation of the Tax Code.** For states that have multiple-bracket corporate income taxes, it is important to index the brackets for inflation. That prevents *de facto* tax increases on the nominal increase in income due to inflation. Put simply, this “inflation tax” results in higher tax burdens on taxpayers, usually without their knowledge or consent. All 14 states with graduated corporate income taxes fail to index their tax brackets: Alaska, Arkansas, Hawaii, Iowa, Kansas, Louisiana, Maine, Mississippi, Nebraska, New Jersey, New Mexico, North Dakota, Oregon, and Vermont.

**Throwback.** To reduce the double taxation of corporate income, states use apportionment formulas that seek to determine how much of a company’s income a state can properly tax. Generally, states require a company with nexus (that is, sufficient connection to the state to justify the state’s power to tax its income) to apportion its income to the state based on some ratio of the company’s in-state property, payroll, and sales compared to its total property, payroll, and sales.

Among the 50 states, there is little harmony in apportionment formulas. Many states weight the three factors equally while others weight the sales factor more heavily (a recent trend in state tax policy). 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 rules because they identify nowhere income and throw it back into a state where it will be taxed, even though it was not earned in that state.

Throwback and throwout rules for sales of tangible property add yet another layer of tax complexity. Since two or more states can theoretically lay claim to “nowhere” income, rules have to be created and enforced to decide who gets to tax it. States with corporate income taxation are almost evenly divided between those with and without throwback rules. Twenty states do not have them, while 25 states and the District of Columbia do.

**Section 168(k) Expensing.** Because corporate income taxes are intended to fall on net income, they should include deductions for business expenses—including investment in machinery and equipment. Historically, however, businesses have been required to depreciate the value of these purchases over time. In recent years, the federal government offered “bonus depreciation” to accelerate the deduction for these investments, and under the Tax Cuts and Jobs Act, investments in machinery and equipment are fully deductible in the first year, a policy known as “full expensing.” Eighteen states follow the federal government in offering full expensing, while two offer “bonus depreciation” short of full expensing.

**Net Interest Limitation.** Federal law now restricts the deduction of business interest, limiting the deduction to 30 percent of modified income, with the ability to carry the remainder forward to future tax years. This change was intended to eliminate the bias in favor of debt financing (over equity financing) in the federal code, but particularly when states adopt this limitation without incorporating its counterbalancing provision, full expensing, the result is higher investment costs. Thirty-five states conform to the net interest limitation.

**Inclusion of GILTI.** Historically, states have largely avoided taxing international income. Following federal tax reform, however, some states have latched onto the federal provision for the taxation of Global Low-Taxed Intangible Income (GILTI), intended as a guardrail for the new federal territorial system of taxation, as a means to broaden their tax bases to include foreign business activity. States which tax GILTI are penalized in the *Index*, while states receive partial credit for moderate taxation of GILTI (for instance, by adopting the Section 250 deduction) and are rewarded for decoupling or almost fully decoupling from GILTI (by, for instance, treating it as largely-deductible foreign dividend income in addition to providing the Section 250 deduction).

## **Tax Credits**

Many states provide tax credits which lower the effective tax rates for certain industries and investments, often for large firms from out of state that are considering a move. Policymakers create these deals under the banner of job creation and economic development, but the truth is that if a state needs to offer such packages, it is most likely covering for a bad business tax climate. Economic development and job creation tax credits complicate the tax system, narrow the tax base, drive up tax rates for companies that do not qualify, distort the free market, and often fail to achieve economic growth.<sup>[17]</sup>

A more effective approach is to systematically improve the business tax climate for the long term. Thus, this component rewards those states that do not offer the following tax credits, with states that offer them scoring poorly.

**Investment Tax Credits.** Investment tax credits typically 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. Investment tax credits distort the market by rewarding investment in new property as opposed to the renovation of old property.

**Job Tax Credits.** Job tax credits typically offer an offset against tax liability if the company creates a specified number of jobs over a specified period of time. Sometimes, the new jobs will have to be “qualified” and approved by the state’s economic development office, allegedly to

prevent firms from claiming that jobs shifted were jobs added. Even if administered efficiently, job tax credits can misfire in a number of ways. They induce businesses whose economic position would be best served by spending more on new equipment or marketing to hire new employees instead. They also favor businesses that are expanding anyway, punishing firms that are already struggling. Thus, states that offer such credits score poorly on the *Index*.

**Research and Development (R&D) Tax Credits.** Research and development tax credits reduce the amount of tax due by a company that invests in “qualified” research and development activities. The theoretical argument for R&D tax credits is that they encourage the kind of basic research that is not economically justifiable in the short run but that is better for society in the long run. In practice, their negative side effects—greatly complicating the tax system and establishing a government agency as the arbiter of what types of research meet a criterion so difficult to assess—far outweigh the potential benefits. Thus, states that offer such credits score poorly on the *Index*.

### **Individual Income Tax**

The individual income tax component, which accounts for 30.5 percent of each state’s total *Index* score, is important to business because a significant number of businesses, including sole proprietorships, partnerships, and S corporations, report their income through the individual income tax code.

Taxes can have a significant impact on an individual’s decision to become a self-employed entrepreneur. Gentry and Hubbard (2004) found, “While the level of the marginal tax rate has a negative effect on entrepreneurial entry, the progressivity of the tax also discourages entrepreneurship, and significantly so for some groups of households.” Using education as a measure of potential for innovation, Gentry and Hubbard found that a progressive tax system “discourages entry into self-employment for people of all educational backgrounds.” Moreover, citing Carroll, Holtz-Eakin, Rider, and Rosen (2000), Gentry and Hubbard contend, “Higher tax rates reduce investment, hiring, and small business income growth” (p. 7). Less neutral individual income tax systems, therefore, hurt entrepreneurship and a state’s business tax climate.

Another important reason individual income tax rates are critical for businesses is the cost of labor. Labor typically constitutes a major business expense, so anything that hurts the labor pool will also affect business decisions and the economy. Complex, poorly designed tax systems that extract an inordinate amount of tax revenue reduce both the quantity and quality of the labor pool. This is consistent with the findings of Wasylenko and McGuire (1985), who found that individual income taxes affect businesses indirectly by influencing the location decisions of individuals. A progressive, multi-rate income tax exacerbates this problem by increasing the marginal tax rate at higher levels of income, continually reducing the value of work vis-à-vis the value of leisure.

For example, suppose a worker has to choose between one hour of additional work worth \$10 and one hour of leisure which to him is worth \$9.50. A rational person would choose to work for another hour. But if a 10 percent income tax rate reduces the after-tax value of labor to \$9, then a rational person would stop working and take the hour to pursue leisure. Additionally, workers earning higher wages—\$30 per hour, for example—who face progressively higher marginal tax rates—20 percent, for instance—are more likely to be discouraged from working additional hours.

In this scenario, the worker's after-tax wage is \$24 per hour; therefore, those workers who value leisure more than \$24 per hour will choose not to work. Since the after-tax wage is \$6 lower than the pretax wage in this example, compared to only \$1 lower in the previous example, more workers will choose leisure. In the aggregate, the income tax reduces the available labor supply.<sup>[18]</sup>

The individual income tax rate subindex measures the impact of tax rates on the marginal dollar of individual income using three criteria: the top tax rate, the graduated rate structure, and the standard deductions and exemptions which are treated as a zero percent tax bracket. The rates and brackets used are for a single taxpayer, not a couple filing a joint return.

The individual income tax base subindex takes into account measures enacted to prevent double taxation, whether the code is indexed for inflation, and how the tax code treats married couples compared to singles. States that score well protect married couples from being taxed more severely than if they had filed as two single individuals. They also protect taxpayers from double taxation by recognizing LLCs and S corporations under the individual tax code and indexing their brackets, exemptions, and deductions for inflation.

#### **Table 4. Individual Income Tax Component of the *State Business Tax Climate Index* (2014–2021)**

States that do not impose an individual income tax generally receive a perfect score, and states that do impose an individual income tax will generally score well if they have a flat, low tax rate with few deductions and exemptions. States that score poorly have complex, multiple-rate systems.

The six states without an individual income tax or non-UI payroll tax are, not surprisingly, the highest scoring states on this component: Alaska, Florida, South Dakota, Texas, Washington, and Wyoming. Nevada, which taxes wage income (but not unearned income) at a low rate under a non-UI payroll tax, also does extremely well in this component of the *Index*. New Hampshire and Tennessee also score well, because while they levy a significant tax on individual income in the form of interest and dividends, they do not tax wages and salaries.<sup>[19]</sup> Colorado, Illinois, Indiana, Kentucky, Massachusetts, Michigan, North Carolina, Pennsylvania, and Utah score highly because they have a single, low tax rate.

Scoring near the bottom of this component are states that have high tax rates and very progressive bracket structures. They generally fail to index their brackets, exemptions, and deductions for inflation, do not allow for deductions of foreign or other state taxes, penalize married couples filing jointly, and do not recognize LLCs and S corporations.

#### **Individual Income Tax Rate**

The rate subindex compares the states that tax individual income after setting aside the four states that do not and therefore receive perfect scores: Alaska, Florida, South Dakota, and Wyoming. Texas and Washington do not have an individual income tax, but they do tax LLC and S corporation income through their gross receipts taxes and thus do not score perfectly in this component. Nevada has a low-rate payroll tax on wage income. New Hampshire and Tennessee, meanwhile, do not tax wage and salary income but do tax interest and dividend income.

**Top Marginal Tax Rate.** California has the highest top income tax rate of 13.3 percent. Other states with high top rates include Hawaii (11.0 percent), New Jersey (recently raised to 10.75 percent), Oregon (9.9 percent), Minnesota (9.85 percent), New York (8.82 percent), Vermont (8.75 percent), and Iowa (8.53 percent).

States with the lowest top statutory rates are North Dakota (2.9 percent), Pennsylvania (3.07 percent), Indiana (3.23 percent of federal AGI), Michigan (4.25 percent of federal AGI), Arizona (4.5 percent), Colorado (4.63 percent of federal AGI), New Mexico (4.9 percent), Ohio (4.797 percent), and Utah (4.95 percent). Alabama, Kentucky, Mississippi, New Hampshire, and Oklahoma all impose a top statutory rate of 5 percent.<sup>[20]</sup> Illinois and Kansas, which previously boasted rates below 5 percent, both adopted rate increases in recent years. (Although Illinois' statutory rate is 4.95 percent, it also imposes an additional 1.5 percent tax on pass-through businesses, discussed elsewhere, bringing the rate for these entities to 6.45 percent.)

In addition to statewide income tax rates, some states allow local-level income taxes.<sup>[21]</sup> We represent these as the mean between the rate in the capital city and most populous city. In some cases, states authorizing local-level income taxes still keep the level of income taxation modest overall. For instance, Alabama, Indiana, Michigan, and Pennsylvania allow local income add-ons, but are still among the states with the lowest overall rates.

**Top Tax Bracket Threshold.** This variable assesses the degree to which pass-through businesses are subject to reduced after-tax return on investment as net income rises. States are rewarded for a top rate that kicks in at lower levels of income, because doing so approximates a less distortionary flat-rate system. For example, Alabama has a progressive income tax structure with three income tax rates. However, because Alabama's top rate of 5 percent applies to all taxable income over \$3,000, the state's income tax rate structure is nearly flat.

States with flat-rate systems score the best on this variable because their top rate kicks in at the first dollar of income (after accounting for the standard deduction and personal exemption). They include Illinois, Indiana, Kentucky, Massachusetts, Michigan, Pennsylvania, and Utah, among others. States with high kick-in levels score the worst. These include New Jersey (\$5 million of taxable income), New York (\$1,077,550), California (\$1 million), Connecticut (\$500,000), and North Dakota (\$433,200 of taxable income).

**Number of Brackets.** The *Index* converts exemptions and standard deductions to a zero bracket before tallying income tax brackets. From an economic perspective, standard deductions and exemptions are equivalent to an additional tax bracket with a zero tax rate.

For example, Kansas has a standard deduction of \$3,000 and a personal exemption of \$2,250, for a combined value of \$5,250. Statutorily, Kansas has a top rate on all taxable income over \$30,000 and two lower brackets, one beginning at the first dollar of income and another at \$15,000, so it has an average bracket width of \$10,000. Because of its deduction and exemption, however, Kansas's top rate actually kicks in at \$35,250 of income, and it has three tax brackets below that with an average width of \$11,750. The size of allowed standard deductions and exemptions varies considerably.<sup>[22]</sup>

Pennsylvania scores the best in this variable by having only one tax bracket (that is, a flat tax with no standard deduction). States with only two brackets (that is, flat taxes with a standard deduction) are Colorado, Illinois, Indiana, Kentucky, Massachusetts, Michigan, New Hampshire,

North Carolina, Tennessee, and Utah. On the other end of the spectrum, Hawaii scores worst with 13 brackets, followed by California with 11 brackets, and Iowa and Missouri with nine brackets.

**Average Width of Brackets.** Many states have several narrow tax brackets close together at the low end of the income scale, including a zero bracket created by standard deductions and exemptions. Most taxpayers never notice them, because they pass so quickly through those brackets and pay the top rate on most of their income. On the other hand, some states impose ever-increasing rates throughout the income spectrum, causing individuals and noncorporate businesses to alter their income-earning and tax-planning behavior. This subindex penalizes the latter group of states by measuring the average width of the brackets, rewarding those states where the average width is small, since in these states the top rate is levied on most income, acting more like a flat rate on all income.

**Income Recapture.** Connecticut and New York apply the rate of the top income tax bracket to previous taxable income after the taxpayer crosses the top bracket threshold, while Arkansas imposes different tax tables depending on the filer's level of income. New York's recapture provision is the most damaging and results in an approximately \$22,000 penalty for reaching the top bracket. Income recapture provisions are poor policy, because they result in dramatically high marginal tax rates at the point of their kick-in, and they are nontransparent in that they raise tax burdens substantially without being reflected in the statutory rate.

### **Individual Income Tax Base**

States have different definitions of taxable income, and some create greater impediments to economic activity than others. The base subindex gives a 10 percent weight to the marriage penalty, a 40 percent weight to the double taxation of taxable income, and a 50 percent weight to an accumulation of other base issues, including indexation.

The states with no individual income tax of any kind achieve perfect neutrality. Texas and Washington, however, are docked slightly because they do not recognize LLCs or S corporations, and Nevada's payroll tax keeps the state from achieving a perfect score. Of the other 43 states, Tennessee, Arizona, Idaho, Illinois, Maine, Michigan, Missouri, Montana, and Nebraska have the best scores, avoiding many problems with the definition of taxable income that plague other states. Meanwhile, states where the tax base is found to cause an unnecessary drag on economic activity include New Jersey, California, Ohio, Minnesota, Maryland, Delaware, and New York.

**Marriage Penalty.** A marriage penalty exists when a state's standard deduction and tax brackets for married taxpayers filing jointly are not double those for single filers. As a result, two singles (if combined) can have a lower tax bill than a married couple filing jointly with the same income. This is discriminatory and has serious business ramifications. The top-earning 20 percent of taxpayers is dominated (85 percent) by married couples. This same 20 percent also has the highest concentration of business owners of all income groups (Hodge 2003A, Hodge 2003B). Because of these concentrations, marriage penalties have the potential to affect a significant share of pass-through businesses. Twenty-three states and the District of Columbia have marriage penalties built into their income tax brackets.

Some states attempt to get around the marriage penalty problem by allowing married couples to file as if they were singles or by offering an offsetting tax credit. While helpful in offsetting the dollar cost of the marriage penalty, these solutions come at the expense of added tax complexity. Still, states that allow for married couples to file as singles do not receive a marriage penalty score reduction.

**Double Taxation of Capital Income.** Since most states with an individual income tax system mimic the federal income tax code, they also possess its greatest flaw: the double taxation of capital income. Double taxation is brought about by the interaction between the corporate income tax and the individual income tax. The ultimate source of most capital income—interest, dividends, and capital gains—is corporate profits. The corporate income tax reduces the level of profits that can eventually be used to generate interest or dividend payments or capital gains.<sup>[23]</sup> This capital income must then be declared by the receiving individual and taxed. The result is the double taxation of this capital income—first at the corporate level and again on the individual level.

All states that tax wage income score poorly by this criterion. Tennessee and New Hampshire, which tax individuals on interest and dividends, score somewhat better because they do not tax capital gains. Nevada's payroll tax does not apply to capital income, and thus scores perfectly on this measure, along with states which forgo all income taxation.

**Federal Income Used as State Tax Base.** Despite the shortcomings of the federal government's definition of income, states that use it reduce the tax compliance burden on taxpayers. Five states score poorly because they do not conform to federal definitions of individual income: Alabama, Arkansas, Mississippi, New Jersey, and Pennsylvania.

### **Alternative Minimum Tax (AMT)**

At the federal level, the Alternative Minimum Tax (AMT) was created in 1969 to ensure that all taxpayers paid some minimum level of taxes every year. Unfortunately, it does so by creating a parallel tax system to the standard individual income tax code. AMTs are an inefficient way to prevent tax deductions and credits from totally eliminating tax liability. As such, states that have mimicked the federal AMT put themselves at a competitive disadvantage through needless tax complexity. Five states score poorly for imposing an AMT on individuals: California, Colorado, Connecticut, Iowa, and Minnesota.

### **Credit for Taxes Paid**

This variable measures the extent of double taxation on income used to pay foreign and state taxes, i.e., paying the same taxes twice. States can avoid double taxation by allowing a credit for state taxes paid to other jurisdictions.

### **Recognition of Limited Liability Corporation and S Corporation Status**

One important development in the federal tax system was the creation of the limited liability corporation (LLC) and the S corporation. LLCs and S corporations provide businesses some of the benefits of incorporation, such as limited liability, without the overhead of becoming a traditional C corporation. The profits of these entities are taxed under the individual income tax code, which avoids the double taxation problems that plague the corporate income tax system. Every state with a full individual income tax recognizes LLCs to at least some degree, and all but

Louisiana recognize S corporations in some fashion, but those that require additional state election or make the entity file through the state’s gross receipts tax (as in Delaware, Ohio, Texas, and Washington) score poorly in this variable.

### **Indexation of the Tax Code**

Indexing the tax code for inflation is critical in order to prevent *de facto* tax increases on the nominal increase in income due to inflation. This “inflation tax” results in higher tax burdens on taxpayers, usually without their knowledge or consent. Three areas of the individual income tax are commonly indexed for inflation: the standard deduction, personal exemptions, and tax brackets. Twenty-five states index all three or do not impose an individual income tax; 15 states and the District of Columbia index one or two of the three; and ten states do not index at all.

### **Sales Taxes**

Sales tax makes up 24.4 percent of each state’s *Index* score. The type of sales tax familiar to taxpayers is a tax levied on the purchase price of a good at the point of sale. Due to the inclusion of some business inputs in most states’ sales tax bases, the rate and structure of the sales tax is an important consideration for many businesses. The sales tax can also hurt the business tax climate because as the sales tax rate climbs, customers make fewer purchases or seek low-tax alternatives. As a result, business is lost to lower-tax locations, causing lost profits, lost jobs, and lost tax revenue.<sup>[24]</sup> The effect of differential sales tax rates among states or localities is apparent when a traveler crosses from a high-tax state to a neighboring low-tax state. Typically, a vast expanse of shopping malls springs up along the border in the low-tax jurisdiction.

On the positive side, sales taxes levied on goods and services at the point of sale to the end-user have at least two virtues. First, they are transparent: the tax is never confused with the price of goods by customers. Second, since they are levied at the point of sale, they are less likely to cause economic distortions than taxes levied at some intermediate stage of production (such as a gross receipts tax or sales taxes on business-to-business transactions).

The negative impact of sales taxes is well documented in the economic literature and through anecdotal evidence. For example, Bartik (1989) found that high sales taxes, especially sales taxes levied on equipment, had a negative effect on small business start-ups. Moreover, companies have been known to avoid locating factories or facilities in certain states because the factory’s machinery would be subject to the state’s sales tax.<sup>[25]</sup>

States that create the most tax pyramiding and economic distortion, and therefore score the worst, are states that levy a sales tax that generally allows no exclusions for business inputs.<sup>[26]</sup> Hawaii, New Mexico, South Dakota, and Washington, are examples of states that tax many business inputs. The ideal base for sales taxation is all goods and services at the point of sale to the end-user.

### **Table 5. Sales Tax Component of the *State Business Tax Climate Index* (2014–2021)**

Excise taxes are sales taxes levied on specific goods. Goods subject to excise taxation are typically (but not always) perceived to be luxuries or vices, the latter of which are less sensitive to drops in demand when the tax increases their price. Examples typically include tobacco, liquor, and gasoline. The sales tax component of the *Index* takes into account the excise tax rates each state levies.



The five states without a state sales tax—Alaska,<sup>[27]</sup> Delaware, Montana, New Hampshire, and Oregon—achieve the best sales tax component scores. Among states with a sales tax, those with low general rates and broad bases, and which avoid tax pyramiding, do best. Wyoming, Wisconsin, Maine, Idaho, Michigan, and Virginia all do well, with well-structured sales taxes and modest excise tax rates.

At the other end of the spectrum, Alabama, Louisiana, Washington, Tennessee, and Arkansas fare the worst, imposing high rates and taxing a range of business inputs, such as utilities, services, manufacturing, and leases—and maintaining relatively high excise taxes. Tennessee has the highest combined state and local rate of 9.55 percent, closely followed by Arkansas at 9.53 percent. In general, these states levy high sales tax rates that apply to most or all business input items.

### **Sales Tax Rate**

The tax rate itself is important, and a state with a high sales tax rate reduces demand for in-state retail sales. Consumers will turn more frequently to cross-border sales, leaving less business activity in the state. This subindex measures the highest possible sales tax rate applicable to in-state retail shopping and taxable business-to-business transactions. Four states—Delaware, Montana, New Hampshire, and Oregon—do not have state or local sales taxes and thus are given a rate of zero. Alaska is sometimes counted among states with no sales tax since it does not levy a statewide sales tax. However, Alaska localities are allowed to levy sales taxes and the weighted statewide average of these taxes is 1.76 percent.

The *Index* measures the state and local sales tax rate in each state. A combined rate is computed by adding the general state rate to the weighted average of the county and municipal rates.

**State Sales Tax Rate.** Of the forty-five states (and the District of Columbia) with a statewide sales tax, Colorado's 2.9 percent rate is the lowest. Five states have a 4 percent state-level sales tax: Alabama, Georgia, Hawaii, New York, and Wyoming. At the other end is California with a 7.25 percent state sales tax, including a mandatory statewide local add-on tax. Tied for second-highest are Indiana, Mississippi, Rhode Island, and Tennessee (all at 7 percent). Other states with high statewide rates include Minnesota (6.88 percent) and Nevada (6.85 percent).

**Local Option Sales Tax Rates.** Thirty-eight states authorize the use of local option sales taxes at the county and/or municipal level, and in some states, the local option sales tax significantly increases the tax rate faced by consumers.<sup>[28]</sup> Local jurisdictions in Colorado, for example, add an average of 4.75 percent in local sales taxes to the state's 2.9 percent state-level rate, bringing the total average sales tax rate to 7.65 percent. This may be an understatement in some localities with much higher local add-ons, but by weighting each locality's rate, the *Index* computes a statewide average of local rates that is comparable to the average in other states.

Alabama and Louisiana have the highest average local option sales taxes (5.22 and 5.07 percent, respectively), and in both states the average local option sales tax is higher than the state sales tax rate. Other states with high local option sales taxes include Colorado (4.75 percent), New York (4.52 percent), and Oklahoma (4.45 percent).

States with the highest combined state and average local sales tax rates are Tennessee (9.55 percent), Arkansas (9.53 percent), Louisiana (9.52 percent), Washington (9.23 percent), and

Alabama (9.22 percent). At the low end are Alaska (1.76 percent), Hawaii (4.44 percent), Wyoming (5.34 percent), Wisconsin (5.43 percent), and Maine (5.5 percent).

**Remote Seller Protections.** With the Supreme Court’s elimination of the physical presence requirement for imposing sales tax collection obligations, nearly all states are now requiring remote sellers to collect and remit sales tax. While most states have adopted safe harbors for small sellers and have a single point of administration for all state and local sales taxes, a few diverge from these practices, imposing substantial compliance costs on out-of-state retailers. Alabama, Alaska (which only has local sales taxes), Colorado, and Louisiana lack uniform administration, while Kansas does not offer a safe harbor for small sellers.

## Sales Tax Base

The sales tax base subindex is computed according to five features of each state’s sales tax:

- - 
  - whether the base includes a variety of business-to-business transactions such as machinery, raw materials, office equipment, farm equipment, and business leases;
  - whether the base includes goods and services typically purchased by consumers, such as groceries, clothing, and gasoline;
  - whether the base includes services, such as legal, financial, accounting, medical, fitness, landscaping, and repair;
  - whether the state leans on sales tax holidays, which temporarily exempt select goods from the sales tax; and
  - the excise tax rate on products such as gasoline, diesel fuel, tobacco, spirits, and beer.

The top five states on this subindex—New Hampshire, Delaware, Montana, Oregon, and Alaska—are the five states without a general state sales tax. However, none receives a perfect score because each levies gasoline, diesel, tobacco, and beer excise taxes. States like Wyoming, Kansas, Colorado, Idaho, Missouri, and Nebraska achieve high scores on their tax base by avoiding the problems of tax pyramiding and adhering to low excise tax rates, though of these, Colorado receives poor marks for a lack of local base conformity.

States with the worst scores on the base subindex are Hawaii, Washington, Alabama, South Dakota, New Jersey, New Mexico, and Connecticut. Their tax systems hamper economic growth by including too many business inputs, excluding too many consumer goods and services, and imposing excessive rates of excise taxation.

**Sales Tax on Business-to-Business Transactions (Business Inputs).** When a business must pay sales taxes on manufacturing equipment and raw materials, then that tax becomes part of the price of whatever the business makes with that equipment and those materials. The business must then collect sales tax on its own products, with the result that a tax is being charged on a price that already contains taxes. This tax pyramiding invariably results in some industries being

taxed more heavily than others, which violates the principle of neutrality and causes economic distortions.

These variables are often inputs to other business operations. For example, a manufacturing firm will count the cost of transporting its final goods to retailers as a significant cost of doing business. Most firms, small and large alike, hire accountants, lawyers, and other professional service providers. If these services are taxed, then it is more expensive for every business to operate.

To understand how business-to-business sales taxes can distort the market, suppose a sales tax were levied on the sale of flour to a bakery. The bakery is not the end-user because the flour will be baked into bread and sold to consumers. Economic theory is not clear as to which party will ultimately bear the burden of the tax. The tax could be “passed forward” onto the customer or “passed backward” onto the bakery.<sup>[29]</sup> Where the tax burden falls depends on how sensitive the demand for bread is to price changes. If customers tend not to change their bread-buying habits when the price rises, then the tax can be fully passed forward onto consumers. However, if the consumer reacts to higher prices by buying less, then the tax will have to be absorbed by the bakery as an added cost of doing business.

The hypothetical sales tax on all flour sales would distort the market, because different businesses that use flour have customers with varying price sensitivity. Suppose the bakery is able to pass the entire tax on flour forward to the consumer but the pizzeria down the street cannot. The owners of the pizzeria would face a higher cost structure and profits would drop. Since profits are the market signal for opportunity, the tax would tilt the market away from pizza-making. Fewer entrepreneurs would enter the pizza business, and existing businesses would hire fewer people. In both cases, the sales tax charged to purchasers of bread and pizza would be partly a tax on a tax because the tax on flour would be built into the price. Economists call this tax pyramiding, and public finance scholars overwhelmingly oppose applying the sales tax to business inputs due to the resulting pyramiding and lack of transparency.

Besley and Rosen (1998) found that for many products, the after-tax price of the good increased by the same amount as the tax itself. That means a sales tax increase was passed along to consumers on a one-for-one basis. For other goods, however, they found that the price of the good rose by twice the amount of the tax, meaning that the tax increase translates into an even larger burden for consumers than is typically thought. Note that these inputs should only be exempt from sales tax if they are truly inputs into the production process. If they are consumed by an end-user, they are properly includable in the state’s sales tax base.

States that create the most tax pyramiding and economic distortion, and therefore score the worst, are states that levy a sales tax that generally allows no exclusions for business inputs. Hawaii, New Mexico, South Dakota, and Washington are examples of states that tax many business inputs.

**Sales Tax Breadth.** An economically neutral sales tax base includes all final retail sales of goods and services purchased by the end-users. In practice, however, states tend to include most goods, but relatively few services, in their sales tax bases, a growing issue in an increasingly service-oriented economy. Professor John Mikesell of Indiana University estimates that, nationwide, sales taxes extend to about 36 percent of all final consumer transactions.<sup>[30]</sup> Exempting any goods or services narrows the tax base, drives up the sales tax

rate on those items still subject to tax, and introduces unnecessary distortions into the market. A well-structured sales tax, however, does not fall upon business inputs. Therefore, states that tax services that are business inputs score poorly on the *Index*, while states are rewarded for expanding their base to include more final retail sales of goods and services.

**Sales Tax on Gasoline.** There is no economic reason to exempt gasoline from the sales tax, as it is a final retail purchase by consumers. However, all but seven states do so. While all states levy an excise tax on gasoline, these funds are often dedicated for transportation purposes, making them a form of user tax distinct from the general sales tax. The five states that fully include gasoline in their sales tax base (Florida, Hawaii, Illinois, Indiana, and Michigan) get a better score. Several other states receive partial credit for applying an *ad valorem* tax to gasoline sales, but at a different rate than for the general sales tax. New York applies local sales taxes only.

**Sales Tax on Groceries.** A well-structured sales tax includes all end-user goods in the tax base, to keep the base broad, rates low, and prevent distortions in the marketplace. Many states exempt groceries to reduce the incidence of the sales tax on low-income residents. Such an exemption, however, also benefits grocers and higher-income residents, and creates additional compliance costs due to the necessity of maintaining complex, ever-changing lists of exempt and nonexempt products. Public assistance programs such as the Women, Infants, and Children (WIC) program or the Supplement Nutrition Assistance Program (SNAP) provide more targeted assistance than excluding groceries from the sales tax base. Thirteen states include or partially include groceries in their sales tax base.

### **Excise Taxes**

Excise taxes are single-product sales taxes but with distinct differences: excise taxes target specific transactions due to some unique characteristic (often negative externalities), and general sales taxes fall on most consumer transactions. Many excise taxes are intended to reduce consumption of the product bearing the tax. Others, like the gasoline tax, are often used on specific projects such as road construction.

**Gasoline and diesel excise taxes** (levied per gallon) are usually justified as a form of user tax paid by those who benefit from road construction and maintenance. Though gas taxes—along with tolls—are one of the best ways to raise revenue for transportation projects (roughly approximating a user fee for infrastructure use), gasoline represents a large input for most businesses, so states that levy higher rates have a less competitive business tax climate. State excise taxes on gasoline range from 58.7 cents in Pennsylvania to 13.77 cents per gallon in Alaska. The *Index* relies upon calculated rates from the American Petroleum Institute, capturing states' base excise taxes in addition to other gallonage-based fees and *ad valorem* taxes placed upon gasoline. General sales tax rates that apply to gasoline are included in this calculated rate, but states which include, or partially include, gasoline in the sales tax base are rewarded in the sales tax breadth measure.

**Tobacco, spirits, and beer excise taxes** can discourage in-state consumption and encourage consumers to seek lower prices in neighboring jurisdictions (Moody and Warcholik, 2004). This impacts a wide swath of retail outlets, such as convenience stores, that move large volumes of tobacco and beer products. The problem is exacerbated for those retailers located near the border of states with lower excise taxes as consumers move their shopping out of state—referred to as cross-border shopping.

There is also the growing problem of cross-border smuggling of products from states and areas that levy low excise taxes on tobacco into states that levy high excise taxes on tobacco. This both increases criminal activity and reduces taxable sales by legitimate retailers.<sup>[31]</sup>

States with the highest tobacco taxes per pack of 20 cigarettes are New York and Connecticut (at \$4.35 each), Rhode Island (\$4.25), Massachusetts (\$3.51), and Hawaii (\$3.20), while states with the lowest tobacco taxes are Missouri (17 cents), Georgia (37 cents), North Dakota (44 cents), North Carolina (45 cents), and Virginia (60 cents).

States with the highest beer taxes on a per gallon basis are Tennessee (\$1.29), Alaska (\$1.07), Alabama (\$1.05), Georgia (\$1.01), and Hawaii (\$0.93), while states with the lowest beer taxes are Wyoming (2 cents), Missouri and Wisconsin (6 cents), and Colorado, Oregon, and Pennsylvania (each at 8 cents). States with the highest spirits taxes per gallon are Washington (\$32.52), Oregon (\$21.98), and Virginia (\$19.93).

## **Property Tax**

The property tax component, which includes taxes on real and personal property, net worth, and the When properly structured, property taxes exceed most other taxes in comporting with the benefit principle and can be fairly economically efficient. In the realm of public finance, they are often also prized for their comparative transparency among taxes, though that transparency may contribute to the public's generally low view of property taxes. The Tax Foundation's *Survey of Tax Attitudes* found that local property taxes are perceived as the second most unfair state or local tax.<sup>[32]</sup>

Property taxes matter to businesses, and the tax rate on commercial property is often higher than the tax on comparable residential property. Additionally, many localities and states levy taxes on the personal property or equipment owned by a business. They can be on assets ranging from cars to machinery and equipment to office furniture and fixtures, but are separate from real property taxes, which are taxes on land and buildings.

Businesses remitted \$782 billion in state and local taxes in fiscal year 2018, of which \$297 billion (38.0 percent) was for property taxes. The property taxes included tax on real, personal, and utility property owned by businesses (Phillips et al. 2019). Since property taxes can be a large burden on business, they can have a significant effect on location decisions.

Mark, McGuire, and Papke (2000) find taxes that vary from one location to another within a region could be uniquely important determinants of intraregional location decisions. They find that higher rates of two business taxes—the sales tax and the personal property tax—are associated with lower employment growth. They estimate that a tax hike on personal property of one percentage point reduces annual employment growth by 2.44 percentage points.

Bartik (1985), finding that property taxes are a significant factor in business location decisions, estimates that a 10 percent increase in business property taxes decreases the number of new plants opening in a state by between 1 and 2 percent. Bartik (1989) backs up his earlier findings by concluding that higher property taxes negatively affect the establishment of small businesses. He elaborates that the particularly strong negative effect of property taxes occurs because they are paid regardless of profits, and many small businesses are not profitable in their first few years, so high property taxes would be more influential than profit-based taxes on the start-up decision.

States which keep statewide property taxes low better position themselves to attract business investment. Localities competing for business can put themselves at a greater competitive advantage by keeping personal property taxes low.

Taxes on capital stock, tangible and intangible property, inventory, real estate transfers, estates, inheritance, and gifts are also included in the property tax component of the *Index*. The states that score the best on property tax are New Mexico, Indiana, Idaho, Delaware, Nevada, and Ohio. These states generally have low rates of property tax, whether measured per capita or as a percentage of income. They also avoid distortionary taxes like estate, inheritance, gift, and other wealth taxes. States that score poorly on the property tax component are Connecticut, Vermont, Illinois, New Hampshire, New Jersey, and New York. These states generally have high property tax rates and levy several wealth-based taxes.

The property tax portion of the *Index* is composed of two equally weighted subindices devoted to measuring the economic impact of both rates and bases. The rate subindex consists of property tax collections (measured both per capita and as a percentage of personal income) and capital stock taxes. The base portion consists of dummy variables detailing whether each state levies wealth taxes such as inheritance, estate, gift, inventory, intangible property, and other similar taxes.<sup>[33]</sup>

### **Property Tax Rate**

The property tax rate subindex consists of property tax collections per capita (40 percent of the subindex score), property tax collections as a percent of personal income (40 percent of the subindex score), and capital stock taxes (20 percent of the subindex score). The heavy weighting of tax collections is due to their importance to businesses and individuals and their increasing size and visibility to all taxpayers. Both are included to gain a better understanding of how much each state collects in proportion to its population and its income. Tax collections as a percentage of personal income forms an effective rate that gives taxpayers a sense of how much of their income is devoted to property taxes, and the per capita figure lets them know how much in actual dollar terms they pay in property taxes compared to residents of other states.

While these measures are not ideal—having effective tax rates of personal and real property for both businesses and individuals would be preferable—they are the best measures available due to the significant data constraints posed by property tax collections. Since a high percentage of property taxes are levied on the local level, there are countless jurisdictions. The sheer number of different localities makes data collection almost impossible. The few studies that tackle the subject use representative towns or cities instead of the entire state. Thus, the best source for data on property taxes is the Census Bureau, because it can compile the data and reconcile definitional problems.

States that maintain low effective rates and low collections per capita are more likely to promote growth than states with high rates and collections.

**Property Tax Collections Per Capita.** Property tax collections per capita are calculated by dividing property taxes collected in each state (obtained from the Census Bureau) by population. The states with the highest property tax collections per capita are New Hampshire (\$3,310), New Jersey (\$3,277), Connecticut (\$3,020), New York (\$2,902), and Vermont (\$2,671). The states that

collect the least per capita are Alabama (\$582), Oklahoma (\$731), Arkansas (\$742), New Mexico (\$792), and Kentucky (\$831).

**Effective Property Tax Rate.** Property tax collections as a percent of personal income are derived by dividing the Census Bureau's figure for total property tax collections by personal income in each state. This provides an effective property tax rate. States with the highest effective rates and therefore the worst scores are New Hampshire (5.66 percent), Vermont (5.14 percent), New Jersey (5.05 percent), Rhode Island (4.6 percent), Maine (4.59 percent), and New York (4.42 percent). States that score well with low effective tax rates are Alabama (1.44 percent), Oklahoma (1.67 percent), Arkansas (1.79 percent), Delaware (1.83 percent), Tennessee (1.95 percent), and Kentucky (2.03 percent).

**Capital Stock Tax Rate.** Capital stock taxes (sometimes called franchise taxes) are levied on the wealth of a corporation, usually defined as net worth. They are often levied in addition to corporate income taxes, adding a duplicate layer of taxation and compliance for many corporations. Corporations that find themselves in financial trouble must use their limited cash flow to pay their capital stock tax. In assessing capital stock taxes, the subindex accounts for three variables: the capital stock tax rate; the maximum payment; and whether any capital stock tax is imposed in addition to a corporate income tax, or whether the business is liable for the higher of the two. The capital stock tax subindex is 20 percent of the total rate subindex.

This variable measures the rate of taxation as levied by the 16 states with a capital stock tax. Legislators have come to realize the damaging effects of capital stock taxes, and a handful of states are reducing or repealing them. Kansas completed the phaseout of its tax in 2011. West Virginia and Rhode Island fully phased out their capital stock taxes as of January 1, 2015, and Pennsylvania phased out its capital stock tax in 2016. The New York capital stock tax will phase out by 2021. Illinois will begin a phaseout in 2020, completing the process in 2024. Connecticut will phase out its tax over five years starting in 2021. States with the highest capital stock tax rates include Connecticut (0.341 percent), Arkansas and Louisiana (0.3 percent), Massachusetts (0.26 percent), Tennessee (0.25 percent), and Mississippi (0.225 percent).

**Maximum Capital Stock Tax Payment.** Eight states mitigate the negative economic impact of the capital stock tax by placing a cap on the maximum capital stock tax payment. These states are Alabama, Connecticut, Delaware, Georgia, Illinois, Nebraska, New York, and Oklahoma, and among states with a capital stock tax, they receive the highest score on this variable.

**Capital Stock Tax versus Corporate Income Tax.** Some states mitigate the negative economic impact of the capital stock tax by allowing corporations to pay the higher of their capital stock tax or their corporate tax. These states (Connecticut, Massachusetts, and New York) are given credit for this provision. States that do not have a capital stock tax get the best scores in this subindex while the states that force companies to pay both score the worst.

### **Property Tax Base**

This subindex is composed of dummy variables listing the different types of property taxes each state levies. Seven taxes are included and each is equally weighted. Delaware, Idaho, Indiana, Ohio, Alaska, New Mexico, North Dakota, Nevada, New Hampshire, and Pennsylvania score the best because they each only levy one of the seven taxes. Connecticut, Maryland, and Kentucky receive the worst scores because they impose many of these taxes.

**Business Tangible Property Tax.** This variable rewards states which remove, or substantially remove, business tangible personal property from their tax base. Taxes on tangible personal property, meaning property that can be touched or moved (as opposed to real estate), are a source of tax complexity and nonneutrality, incentivizing firms to change their investment decisions and relocate to avoid the tax. Seven states (Delaware, Hawaii, Illinois, Iowa, New York, Ohio, and Pennsylvania) exempt all tangible personal property from taxation, while another five states (Minnesota, New Hampshire, New Jersey, North Dakota, and South Dakota) exempt most such property from taxation except for select industries that are centrally assessed.

**Intangible Property Tax.** This dummy variable gives low scores to those states that impose taxes on intangible personal property. Intangible personal property includes stocks, bonds, and other intangibles such as trademarks. This tax can be highly detrimental to businesses that hold large amounts of their own or other companies' stock and that have valuable trademarks. Ten states levy this tax in various degrees: Alabama, Iowa, Kansas, Kentucky, Louisiana, Mississippi, North Carolina, South Dakota, Tennessee, and Texas.[34]

**Inventory Tax.** Levied on the value of a company's inventory, the inventory tax is especially harmful to large retail stores and other businesses that store large amounts of merchandise. Inventory taxes are highly distortionary, because they force companies to make decisions about production that are not entirely based on economic principles but rather on how to pay the least amount of tax on goods produced. Inventory taxes also create strong incentives for companies to locate inventory in states where they can avoid these harmful taxes. Fourteen states levy some form of inventory tax.

**Split Roll Taxation.** In some states, different classes of property—like residential, commercial, industrial, and agricultural property—face distinct tax burdens, either because they are taxed at different rates or are exposed to different assessment ratios. When such distinctions exist, the state is said to have a split (rather than unified) property tax roll. The *Index* assesses whether states utilize split roll taxation, which tends to discriminate against business property, and what ratio exists between commercial and residential property taxation.

**Property Tax Limitation Regimes.** Most states limit the degree to which localities can raise property taxes, but these property tax limitation regimes vary dramatically. Broadly speaking, there are three types of property tax limitations. Assessment limits restrict the rate at which a given property's assessed value can increase each year. (It often, but not always, resets upon sale or change of use, and sometimes resets when substantial improvements are made.) Rate limits, as the name implies, either cap the allowable rate or restrict the amount by which the rate can be raised in a given year. Finally, levy limits impose a restriction on the growth of total collections (excluding those from new construction), implementing or necessitating rate reductions if revenues exceed the allowable growth rate. Most limitation regimes permit voter overrides. The *Index* penalizes states for imposing assessment limitations, which distort property taxation, leading to similar properties facing highly disparate effective rates of taxation and influencing decisions about property utilization. It also rewards states for adopting either a rate or levy limit, or both.

**Asset Transfer Taxes (Estate, Inheritance, and Gift Taxes).** Four taxes levied on the transfer of assets are part of the property tax base. These taxes, levied in addition to the federal estate tax, all increase the cost and complexity of transferring wealth and hurt a state's business climate. These harmful effects can be particularly acute in the case of small, family-owned businesses if



they do not have the liquid assets necessary to pay the estate's tax liability.<sup>[35]</sup> The four taxes are real estate transfer taxes, estate taxes, inheritance taxes, and gift taxes. Thirty-five states and the District of Columbia levy taxes on the transfer of real estate, adding to the cost of purchasing real property and increasing the complexity of real estate transactions. This tax is harmful to businesses that transfer real property often.

The federal Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) lowered the federal estate tax rate through 2009 and eliminated it entirely in 2010. Prior to 2001, most states levied an estate tax that piggybacked on the federal system, because the federal tax code allowed individuals to take a dollar-for-dollar tax credit for state estate taxes paid. In other words, states essentially received free tax collections from the estate tax, and individuals did not object because their total tax liability was unchanged. EGTRRA eliminated this dollar-for-dollar credit system, replacing it with a tax deduction.

Consequently, over the past decade, some states enacted their own estate tax while others repealed their estate taxes. Some states have provisions reintroducing the estate tax if the federal dollar-for-dollar credit system is revived. This would have happened in 2011, as EGTRRA expired and the federal estate tax returned to pre-2001 levels. However, in late 2010, Congress reenacted the estate tax for 2011 and 2012 but with higher exemptions and a lower rate than pre-2001 law and maintained the deduction for state estate taxes. The tax reform law of 2017 raised the federal exemption still further. Thirty-eight states receive a high score for either (1) remaining coupled to the federal credit and allowing their state estate tax to expire or (2) not enacting their own estate tax, including two which repealed their estate tax this year. Twelve states have maintained an estate tax either by linking their tax to the pre-EGTRRA credit or by creating their own stand-alone system. These states score poorly.

Each year, some businesses, especially those that have not spent a sufficient sum on estate tax planning and on large insurance policies, find themselves unable to pay their estate taxes, either federal or state. Usually they are small- to medium-sized family-owned businesses where the death of the owner occasions a surprisingly large tax liability.

Inheritance taxes are similar to estate taxes, but they are levied on the heir of an estate instead of on the estate itself. Therefore, a person could inherit a family-owned company from his or her parents and be forced to downsize it, or sell part or all of it, in order to pay the heir's inheritance tax. Six states have inheritance taxes and are punished in the *Index*, because the inheritance tax causes economic distortions. Maryland has both an estate tax and an inheritance tax, the only state to impose both now that New Jersey has completed the repeal of its estate tax.

Connecticut is the only state with a gift tax, and it scores poorly. Gift taxes are designed to stop individuals' attempts to avoid the estate tax by giving their estates away before they die. Gift taxes have a negative impact on a state's business tax climate because they also heavily impact individuals who have sole proprietorships, S corporations, and LLCs.

### **Unemployment Insurance Taxes**

Unemployment insurance (UI) is a social insurance program jointly operated by the federal and state governments. Taxes are paid by employers into the UI program to finance benefits for workers recently unemployed. Compared to the other major taxes assessed in the *State Business Tax Climate Index*, UI taxes are much less well-known. Every state has one, and all 50 of them

are complex, variable-rate systems that impose different rates on different industries and different bases depending upon such factors as the health of the state's UI trust fund.<sup>[36]</sup>

One of the worst aspects of the UI tax system is that financially troubled businesses, for which layoffs may be a matter of survival, actually pay higher marginal rates as they are forced into higher tax rate schedules. In the academic literature, this has long been called the "shut-down effect" of UI taxes: failing The unemployment insurance tax component of the *Index* consists of two equally weighted subindices, one that measures each state's rate structure and one that focuses on the tax base. Unemployment insurance taxes comprise 9.5 percent of a state's final *Index* score.

Overall, the states with the least damaging UI taxes are Oklahoma, Florida, Delaware, Louisiana, Mississippi, and Ohio. Comparatively speaking, these states have rate structures with lower minimum and maximum rates and a wage base at the federal level. In addition, they have simpler experience formulas and charging methods, and they have not complicated their systems with benefit add-ons and surtaxes.

Conversely, the states with the worst UI taxes are Massachusetts, Kentucky, Idaho, Nevada, and Virginia. These states tend to have rate structures with high minimum and maximum rates and wage bases above the federal level. They also tend to feature more complicated experience formulas and charging methods, and have added benefits and surtaxes to their systems.

### **Unemployment Insurance Tax Rate**

UI tax rates in each state are based on a schedule of rates ranging from a minimum rate to a maximum rate. The rate for any particular business is dependent upon the business's experience rating: businesses with the best experience ratings will pay the lowest possible rate on the schedule while those with the worst ratings pay the highest. The rate is applied to a taxable wage base (a predetermined fraction of an employee's wage) to determine UI tax liability.

Multiple rates and rate schedules can affect neutrality as states attempt to balance the dual UI objectives of spreading the cost of unemployment to all employers and ensuring high-turnover employers pay more.

Overall, the states with the best score on this rate subindex are Nebraska, Maine, Florida, South Carolina, Mississippi, and Louisiana. Generally, these states have low minimum and maximum tax rates on each schedule and a wage base at or near the federal level. The states with the worst scores are Massachusetts, Alaska, Pennsylvania, Rhode Island, and Oregon.

The subindex gives equal weight to two factors: the actual rate schedules in effect in the most recent year, and the statutory rate schedules that can potentially be implemented at any time depending on the state of the economy and the UI fund.

### **Tax Rates Imposed in the Most Recent Year**

**Minimum Tax Rate.** States with lower minimum rates score better. The minimum rates in effect in the most recent year range from zero percent (in Hawaii, Iowa, Kansas, Missouri, and Nebraska) to 2.39 percent (in Pennsylvania).

**Maximum Tax Rate.** States with lower maximum rates score better. The maximum rates in effect in the most recent year range from 5.4 percent (in Alaska, Florida, Idaho, Nebraska, Nevada, New Jersey, and Oregon) to 14.37 percent (in Massachusetts).

**Taxable Wage Base.** Arizona, California, Florida, Tennessee receive the best scores in this variable with a taxable wage base of \$7,000—in line with the federal taxable wage base. The state with the highest taxable bases and, thus, the worst score on this variable, is Washington (\$52,700).

### **Potential Rates**

Due to the effect of business and seasonal cycles on UI funds, states will sometimes change UI tax rate schedules. When UI trust funds are flush, states will trend toward their lower rate schedules (“most favorable schedules”); however, when UI trust funds are low, states will trend toward their higher rate schedules (“least favorable schedules”).

**Most Favorable Schedule: Minimum Tax Rate.** States receive the best score in this variable with a minimum tax rate of zero, which they implement when unemployment is low and the UI fund is flush. The minimum rate on the most favorable schedule ranges from zero in 20 states to 1.0 percent in Alaska.

**Most Favorable Schedule: Maximum Tax Rate.** The lowest maximum rate of 5.4 percent is imposed by 20 states and the District of Columbia. The state with the highest maximum tax rate and, thus, the worst maximum tax score, is Wisconsin (10.7 percent).

**Least Favorable Schedule: Minimum Tax Rate.** Twelve states receive the best score on this variable with a minimum tax rate of zero percent. The state with the highest minimum tax rate and, thus, the worst minimum tax score, is Hawaii (2.4 percent).

**Least Favorable Schedule: Maximum Tax Rate.** Ten states receive the best score in this variable with a comparatively low maximum tax rate of 5.4 percent. The state with the highest maximum tax rate and, thus, the worst maximum tax score, is Massachusetts (18.55 percent).

### **Unemployment Insurance Tax Base**

The UI base subindex scores states on how they determine which businesses should pay the UI tax and how much, as well as other UI-related taxes for which businesses may also be liable.

The states that receive the best scores on this subindex are Oklahoma, Delaware, Vermont, New Mexico, and Ohio. In general, these states have relatively simple experience formulas, they exclude more factors from the charging method, and they enforce fewer surtaxes.

States that receive the worst scores are Virginia, Nevada, Idaho, Maine, and Georgia. In general, they have more complicated experience formulas, exclude fewer factors from the charging method, and have complicated their systems with add-ons and surtaxes. The three factors considered in this subindex are experience rating formulas (40 percent of the subindex score), charging methods (40 percent of the subindex score), and a host of smaller factors aggregated into one variable (20 percent of the subindex score).

**Experience Rating Formula.** A business’s experience rating formula determines the rate the firm must pay—whether it will lean toward the minimum rate or maximum rate of the particular rate schedule in effect in the state at that time.

There are four basic experience formulas: contribution, benefit, payroll, and state experience. The first three experience formulas—contribution, benefit, and payroll—are based solely on the business’s experience and are therefore nonneutral by design.<sup>1371</sup> However, the final variable—state experience—is a positive mitigating factor because it is based on statewide experience. In other words, the state experience is not tied to the experience of any one business; therefore, it is a more neutral factor. This subindex penalizes states that depend on the contribution, benefit, and payroll experience variables while rewarding states with the state experience variable.

**Charging Methods and Benefits Excluded from Charging.** A business’s experience rating will vary depending on which charging method the state government uses. When a former employee applies for unemployment benefits, the benefits paid to the employee must be charged to a previous employer. There are three basic charging methods:

- - - *Charging Most Recent or Principal Employer:* Nine states charge all the benefits to one employer, usually the most recent.
    - *Charging Base-Period Employers in Inverse Chronological Order:* Six states charge all base-period employers in inverse chronological order. This means that all employers within a base period of time (usually the last year, sometimes longer) will have the benefits charged against them, with the most recent employer being charged the most.
    - *Charging in Proportion to Base-Period Wages:* Thirty-four states and the District of Columbia charge in proportion to base-period wages. This means that all employers within a base period of time (usually the last year, sometimes longer) will have the benefits charged against them in proportion to the wages they paid.

None of these charging methods could be called neutral, but at the margin, charging the most recent or principal employer is the least neutral because the business faced with the necessity of laying off employees knows it will bear the full benefit charge. The most neutral of the three is the “charging in proportion to base-period wages” since there is a higher probability of sharing the benefit charges with previous employers.

As a result, the states that charge in proportion to base-period wages receive the best score. The states that charge the most recent or principal employer receive the worst score. The states that charge base-period employers in inverse chronological order receive a median score.

Many states also recognize that certain benefit costs should not be charged to employers, especially if the separation is beyond the employer’s control. Therefore, this subindex also accounts for six types of exclusions from benefit charges:

- - - Benefit award reversed

- Reimbursements on combined wage claims
- Voluntary leaving
- Discharge for misconduct
- Refusal of suitable work
- Continues to work for employer on part-time basis

States are rewarded for each of these exclusions because they nudge a UI system toward neutrality. For instance, if benefit charges were levied for employees who voluntarily quit, then industries with high turnover rates, such as retail, would be hit disproportionately harder. States that receive the best scores in this category are Alaska, Connecticut, Delaware, Louisiana, Missouri, Ohio, Rhode Island, and Vermont. On the other hand, the states that receive the worst scores are Virginia, Nevada, Michigan New Hampshire, Maine, Idaho, and Georgia. Most states charge the most recent or principal employer and forbid most benefit exclusions.

**Solvency Tax.** These taxes are levied on employers when a state's unemployment fund falls below some defined level. Twenty-seven states have a solvency tax on the books, though they fall under different names, such as solvency adjustment tax (Alaska), supplemental assessment tax (Delaware), subsidiary tax (New York), and fund balance factor (Virginia).

**Taxes for Socialized Costs or Negative Balance Employer.** These are levied on employers when the state desires to recover benefit costs above and beyond the UI tax collections based on the normal experience rating process. Ten states have these taxes on the books, though they fall under different names, such as shared cost assessment tax (Alabama) and social cost factor tax (Washington).

**Loan and Interest Repayment Surtaxes.** Levied on employers when a loan is taken from the federal government or when bonds are sold to pay for benefit costs, these taxes are of two general types. The first is a tax to pay off the federal loan or bond issue. The second is a tax to pay the interest on the federal loan or bond issue. States are not allowed to pay interest costs directly from the state's unemployment trust fund. Eighteen states and the District of Columbia have these taxes on the books, though they fall under several names, such as advance interest tax and bond assessment tax (Colorado) and temporary emergency assessment tax (Delaware).

**Reserve Taxes.** Reserve taxes are levied on employers, to be deposited in a reserve fund separate from the unemployment trust fund. Since the fund is separate, the interest earned on it is often used to create other funds for purposes such as job training and paying the costs of the reserve tax's collection. Four states have these taxes on the books: Idaho and Iowa (reserve tax), Nebraska (state UI tax), and North Carolina (reserve fund tax).

**Surtaxes for UI Administration or Non-UI Purposes.** Twenty-six states and the District of Columbia levy surtaxes on employers, usually to fund administration but sometimes for job training or special improvements in technology. They are often deposited in a fund outside of the state's unemployment fund. Some of the names they go by are job training tax (Arizona), reemployment service fund tax (New York), wage security tax (Oregon), and investment in South Dakota future fee (South Dakota).

**Temporary Disability Insurance (TDI).** A handful of states—California, Hawaii, New Jersey, and New York—have established a temporary disability insurance (TDI) program that augments the UI program by extending benefits to those unable to work because of sickness or injury. No separate tax funds these programs; the money comes right out of the states' unemployment funds. Because the balance of the funds triggers various taxes, the TDIs are included as a negative factor in the calculation of this subindex.

**Voluntary Contributions.** Twenty-five states allow businesses to make voluntary contributions to the unemployment trust fund. In most cases, these contributions are rewarded with a lower rate schedule, often saving the business more money in taxes than was paid through the contribution. The *Index* rewards states that allow voluntary contributions because firms are able to pay when they can best afford to instead of when they are struggling. This provision helps to mitigate the nonneutralities of the UI tax.

**Time Period to Qualify for Experience Rating.** Newly formed businesses, naturally, do not qualify for an experience rating because they have no significant employment history on which to base the rating. Federal rules stipulate that states can levy a “new employer” rate for one to three years, but no less than one year. From a neutrality perspective, however, this new employer rate is nonneutral in almost all cases since the rate is higher than the lowest rate schedule. The longer this rate is in effect, the worse the nonneutrality. As such, the *Index* rewards states with the minimum one year required to earn an experience rating and penalizes states that require the full three years.