

Benchmarking for Success: A Comparison of State Business Taxes

Commissioned by:
The Michigan House of Representatives

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*With a transmittal letter from
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Dear Michigan Taxpayers:

Taxes matter. Michigan's are too high, and in order to compete for jobs with other states, Michigan needs tax relief and reform.

These three statements are the central messages of the study below. It was commissioned by the Michigan House of Representatives for use by the governor, the Legislature, business leaders and taxpayers to help chart an economic course for Michigan to land among the Top 10 states in America.

For too long, our newspapers and nightly newscasts have reported that our state is at the bottom of all the good lists and at the top of all the wrong lists. In job creation, economic growth and plant openings, Michigan is at or near the bottom. In unemployment, moving vans, manufacturing losses and mortgage foreclosures, we are unfortunately at the top.

Too often, depending on the political perspective of whoever is talking, Michigan's place on these important economic rankings falls victim to spin. This study was commissioned with the goal of putting political rhetoric aside and focusing on the common belief that everyone – Republican or Democrat – can agree that Michigan should be and needs to be in the Top 10 of states economically.

Benchmarking for Success: A Comparison of State Business Taxes is a first look at where Michigan needs to go to reform our economy. While by no means will it be the last word on Michigan economic future, as Speaker, I believe it is important we begin to look at our common goals and start to move Michigan toward them.

This study, completed by the Anderson Economic Group, looks at the business tax systems of Michigan's fellow states and ranks them. The bad news: right now, Michigan stands a long way from our goal of the Top 10. In fact, the Top 20, and in some cases the Top 30, remain elusive. The good news: with this study – and with a bipartisan commitment to do better for taxpayers – Michigan now has a road map to get us to our goal.

In addition, the timing of this study is important and intentional. Michigan is at the beginning of a crucial effort to reform our business tax code. The Single Business Tax will soon be a thing of the past, and a new system must allow Michigan to better compete for good jobs and economic growth for our state. It would be impossible to be successful in this task without first knowing

Page Two

how we rank and which states already have systems fostering growth and attracting new jobs. With this in mind, it is my hope that this report will serve everyone. Leaders both elected and in business. Democrats and Republicans. Candidates and incumbents. Taxpayers and workers.

To critics, who charge that a new tax code aimed at placing Michigan among the “top ten” states will jeopardize important services, it is important to say upfront this charge only distracts for the more important question of how we make sure taxpayers get the best value for their dollar. No job provider that considers moving to Michigan asks when paying their tax bill, “how is my investment in state bureaucracy and layers of government management?” They instead ask, “how are the local schools, colleges, police, fire, parks and roads?”

This report is a resource meant to supplement all the existing information we already know about Michigan’s economy. It is intended to complement the changes to the state budget process passed by the House for FY 2005 and FY 2006. Changes that have balanced budgets without taxes or fees while expanding investment in services valued the most by taxpayers.

By reforming the budget process and focusing on outcomes for every dollar, the House was able to invest more in key services like our public schools, universities and colleges and police and fire than our counterparts in government in a bad economy. These reforms will make it easier for state government to protect the highest priority services during a tax policy transition that will position as a top 10 economy in the near future.

To meet a difficult challenge, it is always better to begin where people agree. One thing is certain, Michigianians want Michigan to succeed, and where we stand now with our economy is just not good enough. We all can agree Michigan should be and needs to be in the Top 10, now is the time to start moving in that direction.

Sincerely,

A handwritten signature in black ink that reads "Craig DeRoche". The signature is written in a cursive, slightly slanted style.

Craig DeRoche
Speaker of the House

I. Executive Summary..... 1

 Purpose of The Report 1

 Michigan’s Tax & Economic Climate 1

 Business Taxes in Michigan 1

 Challenges to Benchmarking 3

 Selection of Performance Measures 3

 Overview of Methodology 4

 Finding: Michigan Tax Burdens 5

 Finding: States with Low Business Tax Burdens 6

 Finding: Gap Between Michigan and Low Tax Burden
 States 7

 Taxes Matter 9

II. Business Taxation Burden Measures 10

 The Difficulties of Multi-State Business Tax Comparisons .. 10

 Review of Other Business Tax Studies 11

 Selection of Performance Measures 17

 Basics of Good Tax Structures 17

 Taxes Matter: Location Decisions 18

 Taxes Matter: Economic Development 19

 Business Climate Rankings as Predictors of Growth 19

 Limitations of Our Analysis 20

III. Measuring Michigan’s Business Tax Burden 22

 Methodology: Business Taxes 22

 Methodology: Profits Earned within Each State 23

 Total State & Local Taxes as a Share of Personal Income 23

 Taxes Paid by Business as a Share of Personal Income 26

 Taxes Paid by Business as a Share of Private GSP 26

 Taxes Paid by Business as a Share of State Profits 26

 Michigan’s Performance 30

 State Comparisons 30

IV. Comparing Michigan’s Tax Burdens..... 32

 States with Low Business Tax Burdens 32

 Michigan and Direct Competitor States 33

 Measuring the Tax Burden Gap 36

Conclusion	38
<i>V. Bibliography.....</i>	<i>39</i>
<i>Appendix A: Methodology & Data for Tax Measures.....</i>	<i>A-1</i>
Methodology: Taxes Paid by Businesses	A-1
Methodology: Profits Earned within Each State	A-2
Data	A-2
<i>Appendix B: General Sales Tax Analysis</i>	<i>B-1</i>
Business Share Calculations	B-1
Data	B-4
<i>Appendix C: Key Business Tax Burdens.....</i>	<i>C-1</i>
Methodology: Key Business Taxes	1
Data	1
<i>Appendix D: Reconciling Michigan Tax Data</i>	<i>D-1</i>
<i>Appendix E: Variation in Business Taxation in Michigan</i>	<i>E-1</i>
Variation Among Taxpayers Under Different Taxes	E-1
Lack of Uniformity in the SBT	E-3
Figure: Ratio of SBT Credits to Business Income, 2000	E-5
Different Methods of Calculating the SBT	E-6
<i>Appendix F: Participants in Expert Meetings.....</i>	<i>F-1</i>
<i>Appendix G: About the Authors</i>	<i>G-1</i>
Patrick L. Anderson	G-1
Caroline M. Sallee	G-1

I. Executive Summary

PURPOSE OF THE REPORT

The purpose of this report is to provide policymakers with a comprehensive study of how Michigan's business taxes compare to taxes in the other 49 states and the District of Columbia. This report assesses the competitiveness of Michigan's business taxes by measuring what matters to businesses—taxes paid as a percentage of resources available to pay the tax. Although the focus of this report is on Michigan, the report presents a reliable indicator of business tax burdens for all 50 states, using disclosed data sources and methodology.

In order to answer the question of how competitive Michigan's business tax climate is, we establish measures that allow us to make state-to-state comparisons. After making our state comparisons, we measure the gap between Michigan and states with low business tax burdens. We also compare Michigan's taxes to states that compete with Michigan for jobs in industries such as automotive manufacturing.

MICHIGAN'S TAX & ECONOMIC CLIMATE

Michigan's economy is performing poorly. Although the recession that briefly hit the entire country in 2001 is long gone, Michigan still has not recovered. Michigan has one of the highest unemployment rates in the country and has had very little economic growth since 2001. The automotive industry, a cornerstone of the Michigan economy, continues to lay off workers in Michigan and move jobs abroad and to other locations in the United States.

Partially due to the poor performance of the Michigan economy, there has recently been much discussion about Michigan's tax system and the burdens it places on employers. While the tax system cannot be blamed for all of Michigan's current economic woes, a discussion of how changes in the tax system might encourage economic growth is necessary. We intend this report to aid that discussion by objectively measuring business tax burdens for Michigan and other states.

BUSINESS TAXES IN MICHIGAN

Initial Incidence of the Tax. In this report we have looked at taxes where the *initial incidence* of the tax is on business. The initial incidence is on the person that bears the burden of the tax when it is first collected. This may be different from the one who remits the tax to the government. For example, a business may remit income tax withheld from a worker's paycheck, but does not actually bear the burden of the tax. Similarly, retailers collect and remit sales taxes on consumer purchasers, but do not bear the burden of the tax. In the following sections we discuss the taxes where the initial incidence of the tax is on business.

Key Business Taxes in Michigan. The Single Business Tax (SBT) and property taxes are the main taxes that businesses pay. We identify the SBT, property

taxes, license fees, and individual income taxes on pass-through business income as the “key” taxes that businesses pay because they are salient to business, they are levied on business activities, and the incidence of these taxes falls on business. We discuss further the incidence of taxes in “Methodology: Business Taxes” on page 22.

Single Business Tax. The State of Michigan adopted the SBT in 1975, replacing most major taxes (e.g. corporate income tax, franchise tax, and inventory tax) on business with a single tax. The SBT was designed as a broad-based, low-rate tax that placed nearly equal burden on all industries. A modified value-added tax, the original SBT taxed the value a firm added to its products, and was seen as a less variable source of tax revenue for the state than a business income tax.

The neutrality and simplicity of the SBT have been reduced since its enactment. Due to special preferences in the current SBT law, some industries bear a disproportionate share of the tax burden. See “Ratio of SBT Credits to Business Income, 2000” on page 5 in Appendix E.

The Michigan SBT is the only state value-added tax in the United States. Most states tax business income with a state corporate income tax. The SBT has the vexing quality for employers that even though their firms may not make a profit they still have to pay the SBT. The heavy tax burden that manufacturers face, as well as higher compliance costs due to its uniqueness, explain much of employers’ current dislike of the tax.

Personal Property Tax. In Michigan, most business personal property—including machines, computers, tools, and office furnishings—is subject to the personal property tax. While most states tax some personal property, many states that compete with Michigan for job providers do not have this tax. Ohio, Pennsylvania, and Illinois exempt all personal property from property taxes. Wisconsin exempts manufacturing personal property while Iowa exempts all machinery and equipment. As states that compete with Michigan continue to repeal their personal property taxes, Michigan businesses face a competitive disadvantage in attracting firms, particularly capital-intensive industries, that would face high burdens under this tax.

Other Taxes Paid by Michigan Businesses. Other taxes in which the incidence falls on business include a portion of real property taxes, and individual income taxes paid on the profits of pass-through business entities, such as partnerships and limited liability companies. We do not include income taxes on wage and salary earnings of workers, property taxes on primary residences, or sales tax on consumer purchases in “business” taxes. For some taxes, such as the property tax, we apportion the incidence among employers and consumers.

The taxes that Michigan businesses paid in 2004 are summarized in Table 1. The largest taxes that Michigan businesses pay are property taxes and the SBT. Other taxes include license taxes, selective sales taxes (but not the general sales tax, the incidence of which falls largely on consumers), motor fuel taxes (on commercial trucking), and unemployment insurance taxes. In total, businesses paid approximately \$12.3 billion in taxes to state and local governments in Michigan in 2004.

TABLE 1. Taxes Paid by Michigan Businesses, 2004 (amounts in millions)

Property	Motor Fuel Sales	Public Utilities Sales	Other Selective Sales ^a	Single Business Licenses	Unemployment compensation	Individual Income ^b	Total Taxes
\$6,932.1	\$187.3	\$85.9	\$425.2	\$1,841.0	\$402.9	\$643.8	\$12,307.5

Source: Anderson Economic Group, LLC

a. "Other Selective Sales" includes taxes on businesses or services not reported separately in the Census data.

b. Individual income tax on pass-through business income.

CHALLENGES TO BENCHMARKING

Comparing business taxes across the states presents several difficulties. First, states often tax businesses differently based on industry, business form, or size. Unfortunately, many studies implicitly assume "business" is a monolithic category, with firms of every size, every industry, and every structure paying similar burdens. Second, local governments within a state may levy the same tax on business but at different rates. Often studies that compare taxes across the states use "average" tax rates. This ignores the variation of tax rates within states, as well as the (often greater) variation in the tax bases. For example, property tax rates and assessments often vary significantly within states.

Third, state and local governments in each state tax in different proportion to each other. In some states, local taxes are relatively high as local governments are responsible for providing services for residents. In other states, state taxes are relatively high since state government provides services rather than local governments. Due to these differences, a fair comparison requires the harder task of comparing state *and* local taxes that businesses pay, rather than focusing only on state taxes. Finally, tax "exporting," or the shifting of the tax burden to someone outside the state of origin, occurs in all states. Tax exporting is hard to quantify and varies by industry, making it difficult to determine the final tax incidence on business.

SELECTION OF PERFORMANCE MEASURES

Business tax studies or comparisons generally fall into several broad categories. First, there are studies that examine and compare various aspects of *the structure* of each state's tax system, identifying various features thought to be favorable or unfavorable to businesses. Second, there are studies that attempt to measure *the burden* placed on businesses by measuring the level of tax pay-

ments attributable to business sources. Burden is then measured by relating it to another measure such as gross state product, total state personal income, corporate profits, or other measures. Third, there are studies that attempt to measure the tax impact on a limited number of *representative businesses*. In “Review of Other Business Tax Studies” on page 11 we discuss some of the various studies that compare state business tax climates.

OVERVIEW OF METHODOLOGY

This report is a tax burden study. We estimate the business tax burden in each state based on taxes businesses paid to state and local governments in 2004. To compare Michigan’s business tax burdens to those in other states, we chose four different measures:

1. Total State and Local Taxes as a Percentage of Statewide Personal Income
2. Total Taxes Paid by Businesses as a Percentage of Statewide Personal Income
3. Total Taxes Paid by Businesses as a Percentage of Private Gross State Product
4. Total Taxes Paid by Businesses as a Percentage of Profit Earned within Each State

The best measure of firms’ ability to pay their taxes would be actual profits earned within each state’s borders. Since these data do not exist, we constructed an estimate of business profits earned within each state’s borders by allocating profits reported to the IRS nationally to individual states, based on payroll and private gross state product by industry. See “Methodology: Profits Earned within Each State” on page 23.

We also assess taxes paid by businesses as a share of private gross state product, which is one measure of private sector economic activity within the state. Finally, we take business taxes as a share of personal income—another indicator of resources available to pay taxes.

Base Data Sources

The base data for our measures come from the 2004 U.S. Census of Governments State and Local Finance survey.¹ This source gives comparable tax and revenue data for all 50 states and the District of Columbia. State governments report these data to the U.S. Census Bureau.

In order to construct our “total taxes paid by businesses” figure, we used tax data from six main categories:

1. Property
2. Sales and excise

1. The 2004 U.S. Census of Governments State and Local Finance data are available at: <http://www.census.gov/govs/www/estimate04.html>.

3. License
4. Individual income
5. Corporate income
6. Unemployment contributions

For each of the above categories, we allocated some portion of tax revenue as paid by businesses. Because households do not pay the corporate income and unemployment compensation tax, we allocated the entire tax revenue reported by state governments to businesses.

Other Data Sources

We augmented the 2004 Census data with data from other sources. We used data from the Internal Revenue Service's *Statistics of Income* when apportioning individual income taxes on pass-through business income, and in determining state profits. We used Census of Housing data on aggregate real estate taxes paid on owner-occupied units to apportion property taxes to businesses. We used supplier volumes of gasoline and diesel from the U.S. Energy Information Administration to apportion motor vehicle license fees and sales tax.

We detail our estimation methodology and data sources in "Appendix A: Methodology & Data for Tax Measures."

FINDING: MICHIGAN TAX BURDENS

Tax Burden Rankings. We observed the following in our comparison of Michigan's tax burdens to other states:

- Overall state and local taxes as a share of personal income are slightly below the national average in Michigan.
- Business tax burdens are slightly above the national average in Michigan.
- Key business taxes, such as those on business income and property, are well above the national average.

Michigan's Performance on Overall State and Local Tax Burden Measure. Michigan has an overall tax burden that is slightly below the national average. In Michigan, total state and local taxes make up 10.3% of personal income; the national average is 10.4%. Michigan ranks 31 on this measure, where the state with the lowest tax burden ranks 1. See Table 2

Michigan's Performance on All Business Taxes Measures. Michigan has total business taxation burdens slightly above the average for the United States. In all three measures that take all taxes paid by businesses as a share of some measure of resources available to pay the tax, Michigan ranks between 27 and 33, where the state with the lowest tax burden ranks 1. See Table 2 on page 6.

Michigan’s Performance on Key Tax Measures. Certain taxes are salient to businesses. Taxes on property (both real and personal), corporate income, license fees, and personal income on pass-through business income are very apparent to businesses as they make location and expansion decisions. These are also taxes where the initial incidence is on business and we have labeled these key business taxes.

In Michigan, property, license, corporate, and individual income on pass-through business income taxes made up 80% of the taxes businesses paid in 2004. In addition to all business taxes, we compared state performance on key business taxes as a share of personal income, private-sector economic activity, and business profits. Michigan’s businesses face higher-than-average tax burdens when only these taxes are considered. See Table 2 and “Appendix C: Key Business Tax Burdens.”

TABLE 2. Michigan’s Performance on Tax Burden Measures^a

Measure	All Taxes Paid			Key Business Taxes		
	MI %	MI Rank	US %	MI %	MI Rank	US %
<i>All Taxes</i>						
Total State & Local Taxes/ Personal Income	10.3%	31	10.4%	na	na	na
<i>Business Taxes</i>						
Taxes Paid by Business/Personal Income	3.8%	29	3.7%	3.0%	34	2.8%
Taxes Paid by Business/ Private GSP	3.7%	33	3.5%	2.9%	38	2.7%
Taxes Paid by Business/ State Profits	28.4%	27	27.7%	22.6%	31	20.9%

Source: Anderson Economic Group LLC

a. 1= low tax burden

There are historical reasons for why this pattern developed:

1. Michigan cut property taxes on private homes significantly in the 1990’s, as well as the personal income tax rate.
2. While the SBT rate has dropped from 2.3% to just under 2%, there has been no similar decline in personal property tax rates.
3. The tax burdens of the SBT vary significantly, while those of other taxes vary much less. See “Appendix E: Variation in Business Taxation in Michigan.”

FINDING: STATES WITH LOW BUSINESS TAX BURDENS

One of our goals was to identify a group of low-tax states that we informally called the “top ten,” against which to compare Michigan. To be selected as one of these, the state had to meet the following criteria.

Executive Summary

1. Low overall tax burdens

States had to be one of 20 states with the lowest overall tax burdens, as measured by total state and local taxes as a share of state personal income.

2. Low business tax burdens

States had to be one of 20 states with the lowest proportions on all three of our business tax measures. States that scored well on one or two but not all three measures were not selected as a low tax state.

In addition, we would not have included states with highly unusual geographies or economies (e.g. Alaska, Hawaii, or Wyoming), although none met our low-tax criteria.

Top Ten States. The states that met the two conditions stated above are: Alabama, Arkansas, Colorado, Georgia, Missouri, North Carolina, Oklahoma, South Dakota, Tennessee, and Virginia. See Table 3.

TABLE 3. States with Lowest Business Tax Burdens^a

	State & Local Taxes/ Pers. Income		Business Taxes/ Pers. Income		Business Taxes/ Private GSP		Business Taxes/ State Profits	
	%	Rank	%	Rank	%	Rank	%	Rank
Alabama	8.4	1	2.7	3	2.8	8	23.9	14
Arkansas	9.8	15	2.6	2	2.6	3	23.2	10
Colorado	8.8	5	3.0	8	2.9	9	23.9	13
Georgia	9.7	12	3.1	11	2.8	4	23.6	12
Missouri	9.3	6	2.9	7	2.8	5	21.4	3
North Carolina	10.0	19	3.3	18	2.8	6	21.8	5
Oklahoma	9.6	11	2.8	4	3.1	13	25.1	17
South Dakota	8.5	4	3.1	13	2.9	10	22.9	8
Tennessee	8.5	2	2.8	5	2.6	2	21.7	4
Virginia	9.3	7	3.1	9	3.1	15	25.3	18
<i>U.S.</i>	<i>10.4</i>	<i>na</i>	<i>3.7</i>	<i>na</i>	<i>3.5</i>	<i>na</i>	<i>27.7</i>	<i>na</i>
<i>Michigan</i>	<i>10.3</i>	<i>31</i>	<i>3.8</i>	<i>29</i>	<i>3.7</i>	<i>33</i>	<i>28.4</i>	<i>27</i>

Source: Anderson Economic Group LLC

a. 1= low tax burden

FINDING: GAP BETWEEN MICHIGAN AND LOW TAX BURDEN STATES

One objective of this study was to estimate the gap in tax burdens between Michigan and a comparison group of low-tax states. Using the group of top ten low-tax burden states, we identified a threshold tax burden as the state with the highest tax burden on each of our measures. We then calculated the gap between Michigan and the threshold state. We did not calculate the gap between Michigan and the state with the lowest tax burden on each of our measures, but

Executive Summary

instead the highest tax burden that a state can have and still be in our top ten group.

North Carolina and Virginia are our benchmark states. Of our group of top ten low-tax states, North Carolina has the highest tax burdens when we look at business taxes as a share of personal income. Virginia has the highest business tax burdens when we take business taxes as a share of private GSP and state profits. See Table 4 below.

TABLE 4. Performance Benchmarks

Benchmark	Benchmark State	Business Tax Burden
Taxes Paid by Business/Personal Income	North Carolina	3.30%
Taxes Paid by Business/ Private GSP	Virginia	3.08%
Taxes Paid by Business/ State Profits	Virginia	25.32%

Source: Anderson Economic Group, LLC

For Michigan employers to bear a tax burden similar to those in the comparison low-tax states, we estimate that the \$12.3 billion taxes that Michigan businesses pay would need to fall by 10.7% to 16.7% depending on the measure used. In 2004, this would have meant between \$1.3 billion to \$2.0 billion fewer tax dollars collected from businesses. See “Measuring the Tax Burden Gap” on page 36 and Table 5.

TABLE 5. Tax Burden Gap Between Michigan and Low-Tax States

	Business Taxes/ Personal Income	Business Taxes/ Private GSP	Business Taxes/ State Profits
Michigan	3.80%	3.69%	28.35%
Low-Tax State Threshold ^a	3.30%	3.08%	25.32%
Percentage Point Difference	0.50%	0.61%	3.03%
Gap in 2004 Dollars (in millions)	\$1,605.9	\$2,044.3	\$1,316.5
<i>Memo: Tax Reduction Assuming 2% Increase in Economic Growth</i>	<i>\$1,353.8</i>	<i>\$1,723.0</i>	<i>\$1,107.7</i>

Source: Anderson Economic Group, LLC

- a. North Carolina sets the low-tax state threshold for Business Taxes/Personal Income, while Virginia is the low-tax state benchmark for the other two measures.

As Table 5 shows, businesses in Michigan pay about 3 percentage points more in taxes as a share of profits than businesses in the low-tax threshold state. Another way of looking at this is that Michigan residents pay 0.5 percentage points more of their personal income in business taxes than residents in low-tax states.

TAXES MATTER

Both economic theory and empirical evidence suggest that reducing business taxes, *ceteris paribus*, improves the economic performance of states. However, taxes are not the only factor that affects economic growth, or even the most important one. A well-trained workforce, good public services, and infrastructure are all factors that influence a firm's location decisions and affect economic growth. We summarize the evidence on the relationship between business taxes and economic growth beginning in "Taxes Matter: Location Decisions" on page 18.

We recognize that improving economic growth is not the sole objective of tax policy. Policymakers and citizens must also consider the size, structure, and scope of government services, as well as the effect tax policy has on society. In our upcoming *Benchmarking for Success* reports we will turn from the collection of taxes and the financing of government services to state spending on two public goods: education and infrastructure.

II. Business Taxation Burden Measures

Policymakers in Michigan continue to discuss business taxes and how they might be changed to encourage economic growth. In order to assess what should be changed and how, it is important to accurately compare Michigan's taxes to those in other states. Rankings are very popular for this reason and many organizations publish them. In this section we briefly review this type of studies and outline why we have carefully chosen certain measures for our state-to-state comparisons.

THE DIFFICULTIES OF MULTI-STATE BUSINESS TAX COMPARISONS

Comparing business taxes across the states presents several difficulties. First, states often tax businesses differently based on industry, business form, or size. Unfortunately, many studies implicitly assume "business" is a monolithic category, with firms of every size, every industry, and every structure paying similar burdens. Second, local governments within a state may levy the same tax on business but at different rates. Often studies that compare taxes across the states use "average" tax rates. This ignores the variation of tax rates within states, as well as the (often greater) variation in the tax bases. For example, property tax rates and assessments often vary significantly within states.

Some studies try to avoid the "monolith" issue by constructing models of different types and sizes of businesses and then applying the tax structures of at least the major state taxes. The variety of business types and industries still creates a problem here because the number and quality of these models are limited by the scope of the research design, and by the researchers' understanding of the 50 different tax structures in each of the states. Even here, most researchers use average state tax rates. One study of individual burdens uses the largest city in each state as an alternative.²

The different tax structures of each of the states is often the result of a mix of policy heritage, explicit attempts to shift burdens to non-state residents, and differing responses to the degree of local control of tax rates and bases allowed by state constitutions or political customs. In Michigan, for example, localities do not have the option of imposing a general local sales tax under existing interpretations of our constitution. Localities may levy an optional local income tax with voter approval, but its structure is tightly constrained by state law. Localities may vary their property tax millage rates within broad ranges set by the constitution and statutes, but have no discretion on defining the base, except by granting certain tax abatements authorized by specific statutes.

2. For this annual study, *Tax Rates and Tax Burdens in the District of Columbia: A Nationwide Comparison*, published by the Chief Financial Officer in Washington, DC, please see <http://www.cfo.dc.gov>.

States may also follow policies aimed at “exporting” some portion of their business taxes. Tax exporting occurs when a portion of the final incidence of the tax is paid by someone outside the state of origin. This shift can be to the ultimate consumer, to out-of-state owners, to out-of-state workers, or to out-of-state suppliers. Tax exporting is not unusual and occurs to some extent in most businesses.

Tax exporting occurs in all states, but Michigan may do less of it than other states. Industries where this might naturally occur in Michigan, such as automotive manufacturing, are currently facing intense competition that prevents the passing on of tax burdens to consumers. States with natural resources may tax businesses heavily knowing that businesses in turn can shift these costs to consumers. For example, Wyoming has very heavy severance taxes on coal which are exported to individuals and businesses across the nation. Other states impose similarly heavy taxes on oil. While tax exporting occurs in all states, it occurs at varying degrees. In this study, we did not adjust the tax burdens for any state on the assumption that the state “exported” some of its tax burden.

REVIEW OF OTHER BUSINESS TAX STUDIES

Business tax studies or comparisons generally fall into several broad categories. First, there are studies that examine and compare various aspects of *the structure* of each state's tax system, identifying various features thought to be favorable or unfavorable to businesses. Second, there are studies that attempt to measure *the burden* placed on businesses by measuring the level of tax payments attributable to business sources. Burden is then measured by relating it to another measure such as gross state product, total state personal income, corporate profits, or other measures. Third, there are studies that attempt to measure the tax impact on a limited number of *representative businesses*. The following discussion will examine the strengths and weaknesses of each of these approaches using some commonly cited studies as examples.

Structural Studies

The Tax Foundation Business Climate Index. The Tax Foundation's *State Business Tax Climate Index* (SBTCI) is an example of a structural approach.³ It identifies a large number of variables, each having either a positive or negative impact on businesses, and rates each state according to the presence or absence of these features. Each variable is weighted and then used to construct an overall index that is used to rank states as favorable or unfavorable to business. The Tax Foundation is very open and explicit about the variables it chooses, and about the relative weights it assigns to each. However, this study is vulnerable to a number of criticisms.⁴

3. The most recent edition of the Tax Foundation's study is: Dubay and Hodge (2006).

4. A more thorough critique may be found in Fisher (2005).

First, because the SBTCI constructs an overall index that combines many factors, the value it might have for businesses in different industries is lost in the headline effect of “the number.” Further, the SBTCI overall ranking, which is intended to reflect the state’s overall business tax structure, may not provide an accurate picture of a state’s actual business tax burden due to the many provisions governing tax rates, tax bases, credits, and incentives that are not included in the “structure” measure.

Second, by its structure the Tax Foundation’s *State Business Tax Climate Index* is of limited value for smaller, non-C corporations, since most of the variables address issues of importance to large, often multi-state and multi-national businesses. While it does utilize other variables of potential relevance to sole proprietorships, partnerships, or sub-S or limited liability (LLC) corporations, those variables are assigned a relatively low weight, and their presence is often lost in the focus placed on the overall index number itself.

Third, because it attempts to compare structures, it shoehorns some states with unique tax features. The resulting comparisons may distort rather than illuminate the business climate picture. For example, the index treats Michigan’s SBT as a corporate income tax, and compares it to corporate income taxes in other states. The Index measures SBT collections against net corporate profits and finds that the result is the highest effective rate of profits taxation in the country. This omits the fact that the SBT replaced several other taxes which were not based on profits, as well as a more traditional corporate profits tax.⁵

How does Michigan rank overall? The 2002 Index, published in May 2003, ranked Michigan 18th best overall, and above average (GOOD). The study published in 2006 ranked Michigan 26th overall, right at the median for the 50 states plus the District of Columbia. The major change contributing to a lower ranking for Michigan was in the treatment of the Single Business Tax (SBT).

The Tax Foundation’s Index is a fairly comprehensive effort that is useful if its users look carefully at each component, and if they understand its limitations. It is less useful to take the overall index at face value while ignoring the specifics. These weaknesses are typical of structural comparisons.

5. Most states levy a corporate income tax on business. Michigan does not have a standard corporate income tax, but rather a modified value-added tax, the Single Business Tax. In order to compare Michigan with the other 49 states, the Tax Foundation calculates the effective corporate income tax (CIT) rate of the SBT. The Tax Foundation calculates the effective CIT by dividing SBT revenue by Michigan corporate income reported by the IRS. The effective CIT tells us the tax rate that the State of Michigan would need to impose on corporations if it wanted to generate the same revenue the SBT generates. A better measure of the effective CIT in Michigan would be to determine the percentage of the SBT that corporations pay and divide that by state corporate income. This would lower the Tax Foundation’s effective CIT for Michigan.

Tax Burden Studies

Tannenwald Business Tax Burdens Study. A frequently cited study of business tax burdens is Robert Tannenwald's "Massachusetts Business Taxes: Unfair? Inadequate? Uncompetitive?"⁶ Tannenwald, an economist at the Federal Reserve Bank of Boston, examines Massachusetts' business taxes in a multi-state context. He compares the taxes businesses pay as a share of total state and local taxes, statewide personal income, and business profits.

Tannenwald begins his approach by looking at tax incidence, or who actually bears the burden of a tax. Tannenwald goes beyond looking at only corporate income and business income taxes and looks at property, sales, license, excise, worker compensation, and unemployment taxes that businesses pay in each state.

Tannenwald uses tax revenue reported to the Census as his base data. He estimates business's share of various taxes in order to determine the total amount of taxes businesses bear. For the general sales tax, he relies on business share estimates by Ernst & Young (see study below).

A strength of Tannenwald's approach is that he looks at both state *and* local business taxes. This avoids making some states look more competitive when it is the responsibility of local governments to tax and provide services. A second strength is that Tannenwald measures competitiveness as a ratio of business taxes to resources available to pay the tax. He looks at business taxes as a percentage of personal income and of business profits.

Tannenwald ranks Michigan as one of the ten states with the lowest share of total taxes paid by business. We have not included this measure in our study because we think businesses are not concerned with the share of the state's tax revenue which their tax payments represent, but rather their tax burden.

Tannenwald then compares state tax burdens using the ratio of businesses taxes to personal income in fiscal year 2000. Tannenwald ranks Michigan 36th (where 50 = low tax burden) at 4.3% in 2000. On this basis, his high states are Alaska, Wyoming, West Virginia, North Dakota, and Washington. The low states are Maryland, Virginia, North Carolina, Massachusetts, and Missouri.

Using his estimates of business profits, Tannenwald finds Michigan to be 31st, at 34.4%, where Alaska is the high state at 82.3%, and North Carolina the low at 26.9%. By all of these measures, Michigan is below average (low) in business taxes relative to other states.

6. Tannenwald (2004).

While our study uses metrics similar to Tannenwald's, our study differs from his in three ways. First, Tannenwald uses data from fiscal year 2000, while our tax data are from fiscal year 2004. Second, Tannenwald includes an estimate of business's share of the general sales tax in his "business taxes" estimates, while we do not. Third, Tannenwald relies on Ernst & Young for estimates of certain taxes paid by business, while we do not. (See COST study below.)

COST Study. The second frequently cited tax burden study is by the Council on State Taxation (COST), a business advocacy group. Economic consultants from Ernst & Young completed this study.⁷

Like Tannenwald, the COST study uses data from public sources to estimate the business share of 26 taxes. They have included only the taxes that companies are legally liable to pay. In addition to business taxes such as the corporate income tax, the COST study includes sales, property, and individual income taxes paid by owners of pass-through business entities, as well as several others, in their state-specific business taxes estimates.

Their business tax estimates are presented by type of tax for all 50 states and the District of Columbia. For each state, the COST study estimates business taxes as a share of total state and local taxes. The COST authors caution against using this metric to compare states, however, since the ratio may be high or low depending on how the state raises revenue. COST adds a new metric: business taxes as a share of private sector gross state product (GSP). They argue that this measure can be used to compare state business taxes.

The COST study authors describe their methodology for estimating business's share of taxes in general terms. They do not reveal all of their data sources or exactly how they determined business's share of each tax. A reader of their study may be able to reconstruct part, but not all, of their estimates. Since allowing replication is an essential part of our approach, we did not rely on the COST study.

Weaknesses of Tax Burden Studies. Tax burden studies share some common weaknesses that offset the overall strength of the approach. Some of the data needed to do this right does not exist. Other data exist in part, but the nature of it requires estimation to break out the business portion of some taxes. The difficulty in estimating property and sales taxes paid by business will thus produce differences in ranking from one study to another.

States often tax businesses differently based on industry, business form, or size. Like the Tax Foundation study, the Tannenwald and COST studies do not differ-

7. Cline, et al (April 2005).

entiate tax burdens by type or size of business. In addition, these studies ignore the variation in taxes and tax rates that firms within the same state face.

A Representative Business Study

AEG Michigan Business Climate Benchmarking Study. In 1999, the Michigan Economic Development Corporation (MEDC) hired Anderson Economic Group to benchmark the business climate of selected Michigan locations against competing cities.⁸ We compared the cost of doing business in four Michigan cities and one township with nine competitor locations in the U.S. and one in Canada. The business climate factors included in this study were state and local corporate income taxes, sales taxes, VAT taxes, franchise taxes, property taxes, payroll burdens, wage rates, and utility costs (Anderson, 2000).

For each of fifteen locations, the cost of doing business, as identified by the variables listed above, were compared for a representative service firm and a representative manufacturing firm. Detailed income statements and balance sheets were prepared for firms in each location. From these, we were able to compare business costs in our selected locations.

A strength of this approach is that by selecting specific locations, we were able to measure the differences in taxes, wages, and utility costs between cities in the same state, rather than merely the average differences between states. We were also able to capture the effect of business climate on different types of businesses in different industries.

The representative firm approach provides detailed cost information, but it is also very time-consuming. It has the advantage—and disadvantage—of focusing on specific types of firms in specific locations. The data needed to make these comparisons must be current. The data in this report is now a half-decade old and would need to be updated in order to compare these locations today.

Other Business and Tax Studies

Small Business Survival Index. This index goes well beyond taxation metrics as it attempts to identify states with favorable conditions for the creation and survival of small businesses. Sponsored by the Small Business and Entrepreneurship Council (SBEC), it consists of 23 measures that collectively reflect SBEC's view of how heavily a state taxes and regulates small business. Its variables include progressive taxes, regressive taxes, labor costs, selected government regulations, and “other” items such as crimes per 100 residents.

8. This report, “Michigan’s Business Climate Benchmarking Study,” is available on our website at <http://www.AndersonEconomicGroup.com>.

While these variables may belong in the index and are important indicators of a state's small business climate, economist Peter Fisher points out that no measures of infrastructure, education, and public programs for small business are included in this index. This leads to an important question: what is the index measuring and what should be included if we want to assess a state's environment for small business? If the SBEC wants to measure how state tax and regulatory structures affect small businesses, then more precise measures of the taxes these business bear should be included in the index.

Outcome variables, such as patents, business churning (start-ups and closures as share of total businesses), or initial public offerings as a share of some measure of total business activity can be used to test whether the SBSI does a good job of identifying states with an environment favorable to small business and entrepreneurship. Peter Fisher's analysis found little evidence that the index predicts actual small business growth.⁹ In "Business Climate Rankings as Predictors of Growth" on page 19, we examine the prediction power of other business climate rankings.

Beacon Hill Institute State Competitiveness Report. The Beacon Hill Institute (BHI) at Suffolk University in Boston began publishing state competitiveness rankings in 2001. This report contains rankings for both the states and the 50 largest metro areas. Its metrics include:

1. Government and fiscal policies (state and local taxes, workers compensation premium rates, bond ratings, unemployment benefits and number of public employees per 100 residents).
2. Security (several crime rate related measures).
3. Infrastructure (households with phones, broadband lines per 1,000 residents, travel time to work).
4. Human resources (percent of population without health insurance, unemployment rate, infant mortality rate).
5. Technology (academic R&D per \$1,000 of GSP, patents, science and engineering degrees, high-tech payroll as percent of total payroll).
6. Business Incubation (firm births, venture capital, minimum wage, entrepreneurial index, cost of doing business index).
7. Openness (exports, incoming foreign investment, environmental policy).

These are selected from a total of over 50 metrics, which themselves include other indices (e.g. entrepreneurial index, and a cost of doing business index). In his review of this index, Fisher notes that Beacon Hill mixes many causal variables with many outcome variables, and not all are clearly related to "competitiveness."¹⁰ A weakness of this index is that the BHI uses variables that measure

9. Fisher (2005) pp. 7-16.

outcomes of economic growth, not the causes of it. By including so many different variables it is difficult to assess what this index is really measuring or how a firm may use it to make a location decision.

Cato Institute Fiscal Policy Report Card. The Cato Institute Fiscal Policy Report Card is truly a "report card" that gives letter grades (A to F) to the nation's governors. There are three grades given overall, plus separate ones for spending restraint and tax policy. Because this measures the term of a governor, the report does not evaluate all states over a common time period.

This index does not reflect differences in the powers governors have over spending and taxes under the 50 state constitutions, and those differences can be considerable. The variables covered generally measure rates of change in taxes and spending, including the governor's recommendations. Tax and spending cuts will improve a governor's score, while spending and tax increases will reduce it. By only focusing on fiscal policy, the index is easy to understand. All tax cuts, regardless of the reason for the cut, are viewed positively in the index and all spending increases rewarded negatively.

SELECTION OF PERFORMANCE MEASURES

Rather than rely on indices that subjectively rate features of state tax codes, we have chosen to assess the amount businesses pay in taxes as a percentage of businesses' ability to pay. Thus, our study is a *tax burden* study. We use *actual* taxes paid as a percentage of available resources to measure how Michigan compares to other states. We believe that firms care how much they pay in taxes, not whether they are paying "more than their fair share." For this reason, we have not included business share measures (taxes paid by businesses as a percentage of total own-source government revenue) or an analysis of states' tax structures in our report.

The measures included in this study compare taxes paid by businesses as a share of personal income, of private sector economic activity in each state, and of business profits earned within the state. We include one more measure in this report. As a measure of the level of overall taxation in each state, we have included total state and local tax revenue as a share of personal income in 2004.

BASICS OF GOOD TAX STRUCTURES

The baseline components of tax theory have not changed a lot over the centuries since they were first laid out by Adam Smith in *The Wealth of Nations*.¹¹ The base of the tax should be as broad as possible, and the rate as low as possible to still raise sufficient revenues to fund public services, in order to minimize distortion of economic decision making. Other basics of tax theory: taxes should be

10. Fisher (2005), pp. 29.

11. Adam Smith lays out his principles of good taxation in *The Wealth of Nations*, (1776) Book 5, Chapter II. (Smith, 1976)

certain, understandable and predictable, and as uncomplicated as possible in order to minimize compliance and collection costs to both the government and the taxpayer. Most work in modern tax theory is a refinement of these basics. Few of these principles describe the tax systems of either the federal government or any of the 50 state governments, and simplicity is generally the most frequently violated principle.

**TAXES MATTER:
LOCATION DECISIONS**

Business taxation can discourage business formation and expansion. Some firms have the ability to relocate their activities fairly easily from a high-tax to a low-tax state. Furthermore, taxes are like other costs in that they reduce the profits of a firm. Since the purpose of investment is to increase profits, taxes that reduce profits discourage investment. Of course, taxes buy government services, and those services vary in quality and benefits to an employer. By restricting this study to states in the United States, we are explicitly assuming that all states provide at least a minimal level of government services. The variation in the quality of those services is one factor that is not considered in this tax burden study.

Empirical Evidence. Studies by Newman (1983), Bartik (1985), Papke (1991), and Hines (1996) present evidence that taxes have a small, but measurable, effect on the location decisions of firms. Goolsbee (2002) presents evidence that taxes affect the type of entities businesses form in a state. Wasylenko (1997) surveyed recent econometric studies and found that state and local taxes have a small, statistically significant negative effect on growth, employment and business location decisions of firms.

Other studies debate this finding, or at least question how much taxes factor into location decisions. Studies by Carroll and Wasylenko (1994), Tannenwald (1996), and older studies—Thompson and Matilla (1959) and Carlton (1983)—report little evidence for the view that taxes *significantly* affect business location decisions within the United States.

Clearly the cost of doing business (e.g. wages, utility prices, and property costs) of which taxes are one component, do affect businesses' location decisions and job growth. State governments have used the responsiveness of firms to tax incentives to attract private sector investment to their states. The use of tax incentives by state governments reduces the effect that overall business taxes have on economic development. For example, Michigan provides many tax incentives, including Michigan Economic Growth Authority (MEGA) tax credits and property tax abatements, to firms seeking to expand their facilities or open new ones in Michigan. MEGA credits are designed to attract high-tech industries to the state by providing a credit against the Single Business Tax. Examples of firms in the state receiving MEGA credits include General Motors and Compuware.

**TAXES MATTER:
ECONOMIC
DEVELOPMENT**

A handful of studies have looked at business taxes, or business climate rankings, and examined their ability to explain differences in the job or income growth among the states. Anderson (1986) reviewed the economic performance of manufacturing states and concluded that the ten worst business tax states, as measured by the costs facing manufacturers in each state, lost manufacturing jobs between 1979 and 1984, while the ten lowest tax states gained jobs during the same period. Similarly, Anderson (2002) found that a reduction in total state and local taxes was associated with the growth in employment in the state between the years 1992 and 1999.¹² This evidence suggests that taxes are one factor that affects a state’s economic development.

**BUSINESS CLIMATE
RANKINGS AS
PREDICTORS OF
GROWTH**

An important question to ask of rankings is whether the ranking does a good job of predicting why some states or cities grow more rapidly than others. In other words, we should test the ranking against an objective measure of performance. We examine how well the best and worst tax states identified by the Tax Foundation, COST, and Tannenwald studies perform on economic measures when compared to the U.S. state average. Below, we review the economic performance for a five-year period that includes years before and after the tax measures.

TABLE 6. Selected Business Tax Studies as Predictors of Economic Growth, 1999-2004

	Unemployment Rate		Personal Income (Compounded Annual Growth Rate 1999-2004)	Private GSP	Private Sector Jobs Gained	
	2002	2004			1999-2004	2002-2004
<i>Tax Foundation (2003) Top 10</i>	5.7%	5.3%	5.2%	6.0%	103,940	53,110
<i>Tax Foundation (2003) Worst 10</i>	5.1%	4.9%	4.5%	4.7%	11,280	12,170
<i>COST (2003) Best 10</i>	5.3%	5.2%	4.8%	4.8%	6,930	13,090
<i>COST (2003) Worst 10</i>	5.0%	4.8%	5.0%	5.6%	14,030	10,080
<i>Tannenwald (2000) Best 10</i>	5.0%	5.0%	4.8%	5.0%	4,800	13,200
<i>Tannenwald (2000) Worst 10</i>	5.5%	5.2%	5.1%	5.4%	33,060	22,680
<i>U.S. State Average</i>	5.4%	5.3%	4.7%	5.0%	25,910	19,222

Source: Anderson Economic Group LLC; Tax Foundation (2006), COST (2005), Tannenwald (2006), Bureau of Labor Statistics, Bureau of Economic Analysis

12. Analysis on the impact of state and local taxes on employment growth was presented at the Workforce Development Summit sponsored by the State of North Carolina: *Retooling Our Workforce for a Knowledge-Based Economy in Greensboro, North Carolina.*

As Table 6 demonstrates, the Tax Foundation's top ten states had the highest personal income and private sector gross state product growth, and the most jobs gained between 1999 and 2004. The Tax Foundation's worst states performed below the average state performance on almost all of the measures. The Tax Foundation's index seems to identify and reward certain elements that were correlated with good economic growth between 1999 and 2004.

To evaluate COST's study, we chose the ten states with the lowest ratio of business taxes to private sector and labeled them the "Best 10." Likewise, the "Worst 10" are those states with the highest ratio. After evaluating the economic performance of the best and worst states as a group, we found that the COST "Worst 10" performed better than the "Best 10" on almost every measure. The states with the highest tax burdens had better growth and larger employment gains than the Best 10. See Table 6 on page 19.

To evaluate Tannenwald's study, we identified the "Best 10" states as those with the lowest business taxes to state business profits ratio. The "Worst 10" are those states with the highest ratio. Like COST, Tannenwald's worst tax burden states perform better than his best. Tannenwald's tax burden measure does not appear to do a good job of predicting better state economic performance.

Limitations of Predictability Analysis. Each of the three studies mentioned above calculate state tax rankings for a specific point in time. The Tax Foundation looks at state tax structures each year, while the Tannenwald and COST studies measure state business tax burdens at one point in time. When comparing how well a state grows given its business tax burdens, we should consider two things:

1. the current tax burden at the time of the ranking; and
2. the expectation of future tax burdens.

As businesses consider both of these, tax burden rankings at a specific point in time do not tell us everything a firm considers; they miss the policy direction effect. Thus, a state may grow faster and gain jobs even if its business tax burdens are "high" because firms may expect lower burdens in the future.

LIMITATIONS OF OUR ANALYSIS

Our analysis has several limitations. These include:

- Economists will tell you that *people*, rather than businesses, pay taxes. In this analysis, we have categorized taxes based on the initial incidence of the tax. In this report, a "business tax" is a tax paid by a firm rather than a household.
- Our analysis is not broken out by industry or firm size. Different sized firms and different industries may face very different tax climates even within the same state. "Appendix E: Variation in Business Taxation in Michigan" better explains this point by illustrating the taxes paid by similarly sized firms in different industries within the state of Michigan.

Business Taxation Burden Measures

- This report does not make state-to-state comparison of the total cost of doing business. When firms make decisions about where to locate they look at more than state and local taxes. A business climate study takes into account differences in utility costs, wages rates, and property tax rates within and between states. In this analysis we do not make those comparisons, but focus instead on only taxes.
- We do not consider the benefits of doing business in certain areas, which might allow a state to have higher costs but still gain jobs and be competitive.
- We do not consider the compliance costs of each state's tax system.

III. Measuring Michigan's Business Tax Burden

Comparing state business taxes proved to be a challenging task. In this section we detail our data sources, methodology for allocating taxes paid to businesses, and our key measures.

METHODOLOGY: BUSINESS TAXES

Base Data of Business Tax Measures. The base data for our measures is from the U.S. Census Bureau's Annual Survey of Government Finances. The Census collects data on states annually and state and local governments biannually. The Michigan Department of Treasury reports this information to the Census. See "Appendix D: Reconciling Michigan Tax Data" for this data. We allocated some portion of the following taxes from the 2004 State and Local Government Finances survey to businesses:

1. Property
2. Sales and excise
3. Licenses
4. Corporate income
5. Unemployment compensation
6. Individual income

Initial Incidence of the Tax. Our measures include taxes where the *initial incidence* of the tax is on business. The initial incidence is on the person who bears the burden of the tax when it is first collected. This may be different from the one who remits the tax to the government. Certain taxes, such as the corporate income and unemployment compensation are paid and borne by business. We allocated all taxes paid in these categories to business.

For other taxes, such as property, excise, and licenses, we allocated a portion to business, as consumers also bear some of the initial incidence. For example, business license fees are a tax on business, while marriage license are borne by households. We also allocated some of the personal income tax collected by government tax paid on pass-through business income. A description of how we estimated each tax paid by business is included in "Appendix A: Methodology & Data for Tax Measures" on page A-1.

General Sales Tax Revenue. In the case of the general sales tax, the initial incidence of this tax is on consumers. The one exception is sales tax paid by businesses on non-exempt business input purchases. As businesses are often not aware of what they pay in sales tax, and this tax is not reported separately for consumer and business purchases, we have not included this tax in our calculation of taxes paid by business. Other studies have estimated the incidence of this tax on business, and we too examined this. (In "Appendix B: General Sales Tax

Analysis” on page 1, we include state-specific estimates of business’ share of this tax.)

Auxiliary Analysis. We have not included an allocated portion of this tax in our “total taxes paid by businesses” estimates. The fact that the initial incidence of this tax is largely on consumers, the lack of direct data on business purchases, and the wide variance in business share that various approaches yield for the same state made us question the reliability of these estimates.

We have included a version of our analysis that includes this tax in the appendix. As other tax burden studies have included sales tax as a business tax, we have provided our estimates for comparison purposes. We found that the states with the lowest tax burdens did not change in the rankings whether we included business’ share of sales tax or not. Michigan’s relative position also did not change. See “Appendix B: General Sales Tax Analysis” on page B-1.

**METHODOLOGY:
PROFITS EARNED
WITHIN EACH STATE**

One of our metrics in this study is business taxes as a share of state profits. For the denominator in this measure, we had to estimate total business profits earned within each state. We first had to determine national profits for different types of firms. We relied on tax return data from the Internal Revenue Service to determine profits in each industry in the United States. We used information published by the IRS to find out profits by major industries in 2003 for “C” corporations, “S” Corporations, partnerships, and sole proprietorships.

We allocated profits to each state using the average result of two methods. We first looked at each state’s share of employment in each industry using the U.S. Economic Census 2002. We allocated profits by industry to each state using each state’s share of national payroll in that industry. A state’s total profit is the sum of all the profits by industry in that state. Next, we allocated national profits based on private sector gross state product. Again, we allocated profit to each state by each state industry’s share of total GSP in 2003. The state’s total profit is the sum of all industry profits in that state. Finally, we averaged the profits given by these two approaches to obtain each state’s total profits. See “Appendix A: Methodology & Data for Tax Measures” at the end of this report.

**TOTAL STATE &
LOCAL TAXES AS A
SHARE OF PERSONAL
INCOME**

Before looking specifically at business taxes in each state, we looked at the overall tax revenue in each state as a share of income available to pay the tax. Total state and local taxes as a percentage of personal income is a good indicator of the overall tax burden in a state.

It is important to use both state *and* local taxes rather than just state tax revenue when computing this ratio. Focusing solely on state taxes ignores the differences among the states in how they tax and provide services. Some collect and administer services at the local level while others perform these services at the

state level. The denominator in this ratio, state personal income, measures state residents' ability to pay the tax by using a estimate of income from taxable and non-taxable sources. This provides a proxy for measuring tax burden as a whole.

“Total State and Local Taxes as a Percentage of Personal Income, 2004” on page 25 shows the results by state. A ranking of “1” indicates the lowest tax burden while “51” is the highest. The lowest state is Alabama at 8.42%, while the highest state is New York at 13.76%. Most states fall between 9% and 11%. Michigan ranks 31st with a share of 10.33%.

Table 7. Total State & Local Taxes as a Share of State Personal Income, 2004

Ranking	State	Total State & Local Taxes as a % of State Personal
		Income
1	Alabama	8.42%
2	Tennessee	8.50%
3	New Hampshire	8.54%
4	South Dakota	8.54%
5	Colorado	8.78%
6	Missouri	9.26%
7	Virginia	9.26%
8	Texas	9.38%
9	Montana	9.48%
10	Oregon	9.53%
11	Oklahoma	9.63%
12	Georgia	9.66%
13	South Carolina	9.81%
14	Florida	9.83%
15	Arkansas	9.85%
16	Iowa	9.86%
17	Washington	9.86%
18	Indiana	9.96%
19	North Carolina	9.99%
20	Massachusetts	10.00%
21	Mississippi	10.02%
22	Arizona	10.03%
23	Nevada	10.11%
24	Maryland	10.14%
25	Delaware	10.14%
26	Idaho	10.18%
27	Kentucky	10.18%
28	Illinois	10.24%
29	North Dakota	10.25%
30	Utah	10.29%
31	Michigan	10.33%
32	Pennsylvania	10.35%
33	Minnesota	10.53%
34	California	10.61%
35	Louisiana	10.63%
36	Alaska	10.63%
37	West Virginia	10.66%
38	Connecticut	10.80%
39	Kansas	10.90%
40	New Jersey	10.92%
41	New Mexico	10.94%
42	Ohio	10.97%
43	Nebraska	11.19%
44	Rhode Island	11.38%
45	Wisconsin	11.57%
46	Vermont	11.59%
47	Hawaii	11.69%
48	Maine	12.62%
49	Wyoming	12.96%
50	District of Columbia	13.74%
51	New York	13.76%

Memo: U.S. 10.4%

Base Data: U.S. Census, Quarterly State Finance Data

Data: AEG Estimate for 2004

Analysis: Anderson Economic Group, LLC

**TAXES PAID BY
BUSINESS AS A
SHARE OF PERSONAL
INCOME**

To compare business tax burdens, we first estimated the amount of taxes that businesses pay in each state. As mentioned in our methodology section, we constructed this figure by allocating portions of several taxes that businesses pay. These taxes include property, excise, license, unemployment compensation, and corporate income. We were careful to include personal income tax on “pass-through” business income as a tax on business. This income includes profits earned by an unincorporated business and allocated to the business’ owners for tax purposes. The owners then report these earnings on their personal income tax returns.

Once we had estimates of taxes paid by businesses for every state, we constructed a ratio of business taxes to personal income for each state. Personal income is often used as an indicator of the size of state business profits. This is the same denominator that was used in our first measure.

On this measure, the average for the U.S. is 3.7%. New Mexico has the lowest business tax burden at 2.44% while Alaska has the highest at 6.11%. Michigan falls above the average at 3.80%. See “Total Taxes Paid by Businesses as a Percentage of Personal Income” on page 27.

**TAXES PAID BY
BUSINESS AS A
SHARE OF PRIVATE
GSP**

Our second measure also uses taxes paid by businesses in the numerator, but uses a different denominator. For this second metric, we compare business taxes as a share of state economic activity. We used private-sector gross state product as a measure of economic activity. Private-sector gross state product is the total value of a state’s annual production of goods and services excluding the public sector.

On this measure, the average for the U.S. is 3.5%. The state with the lowest share is New Mexico at 2.49%, while Maine has the highest at 5.63%. Michigan falls above average at 3.69%. See “Taxes Paid by Business as a Percentage of Private GSP” on page 28.

**TAXES PAID BY
BUSINESS AS A
SHARE OF STATE
PROFITS**

Our final business taxation measure compares taxes paid by businesses to profits earned within the state. State-specific estimates of corporate profits, as well as other type of business profits, are not readily available. We allocated national profits based on two factors: state share of industry payroll and state share of gross state product.

On this measure, the average for the U.S. is 27.7%. The lowest share is Delaware at 17.41%, while the highest is Montana at 55.18%. Most state ratios fall between 20% and 30%. Michigan’s ratio of business taxes to state profits is 28.35%. See “Taxes Paid by Business as a Percentage of State Profit” on page 29.

Table 8. All Taxes Paid By Businesses as a Share of Personal Income, 2004

Ranking	State	All Taxes Paid by Businesses as a % of State
		Personal Income
1	New Mexico	2.44%
2	Arkansas	2.58%
3	Alabama	2.65%
4	Oklahoma	2.78%
5	Tennessee	2.79%
6	Maryland	2.81%
7	Missouri	2.87%
8	Colorado	3.02%
9	Virginia	3.11%
10	Utah	3.11%
11	Georgia	3.12%
12	Arizona	3.13%
13	South Dakota	3.13%
14	Louisiana	3.15%
15	Hawaii	3.20%
16	Kentucky	3.24%
17	Washington	3.24%
18	North Carolina	3.30%
19	Ohio	3.30%
20	Minnesota	3.34%
21	Idaho	3.60%
22	Pennsylvania	3.61%
23	Florida	3.63%
24	California	3.66%
25	Nebraska	3.66%
26	Indiana	3.69%
27	Mississippi	3.73%
28	Massachusetts	3.76%
29	Michigan	3.80%
30	Iowa	3.82%
31	South Carolina	3.83%
32	Wisconsin	3.84%
33	Connecticut	3.88%
34	Oregon	3.88%
35	West Virginia	3.88%
36	Nevada	3.97%
37	Kansas	4.11%
38	North Dakota	4.27%
39	Illinois	4.29%
40	Texas	4.29%
41	New Jersey	4.32%
42	Rhode Island	4.39%
43	Wyoming	4.40%
44	New York	4.93%
45	Montana	5.00%
46	New Hampshire	5.09%
47	Vermont	5.20%
48	Maine	5.30%
49	Delaware	5.34%
50	District of Columbia	5.64%
51	Alaska	6.11%

Memo: U.S. 3.7%

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

Table 9. All Taxes Paid By Businesses as a Share of Private Gross State Product, 2004

Ranking	State	All Taxes Paid by Businesses as a % of State Private	
			GSP
1	New Mexico		2.49%
2	Tennessee		2.56%
3	Arkansas		2.59%
4	Georgia		2.77%
5	Missouri		2.81%
6	North Carolina		2.82%
7	Utah		2.83%
8	Alabama		2.83%
9	Colorado		2.85%
10	South Dakota		2.88%
11	Louisiana		2.91%
12	Arizona		2.93%
13	Oklahoma		3.05%
14	Minnesota		3.07%
15	Virginia		3.08%
16	Kentucky		3.14%
17	Washington		3.14%
18	Ohio		3.16%
19	Delaware		3.17%
20	Maryland		3.26%
21	District of Columbia		3.28%
22	California		3.34%
23	Indiana		3.37%
24	Hawaii		3.38%
25	Nevada		3.46%
26	Massachusetts		3.50%
27	Pennsylvania		3.52%
28	Iowa		3.55%
29	Nebraska		3.55%
30	Wisconsin		3.59%
31	Idaho		3.59%
32	Connecticut		3.65%
33	Michigan		3.69%
34	Wyoming		3.70%
35	Florida		3.77%
36	Texas		3.78%
37	South Carolina		3.80%
38	Oregon		3.82%
39	Illinois		3.97%
40	Kansas		4.10%
41	North Dakota		4.16%
42	New Jersey		4.19%
43	Mississippi		4.19%
44	West Virginia		4.41%
45	Rhode Island		4.41%
46	New York		4.51%
47	Alaska		4.99%
48	New Hampshire		5.14%
49	Vermont		5.38%
50	Montana		5.57%
51	Maine		5.63%

Memo: U.S. 3.5%

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

Table 10. All Taxes Paid By Businesses as a Share of Business Profits, 2004

Ranking	State	All Taxes Paid by Businesses as a % of Business Profits	
		Earned within the State	
1	Delaware		17.41%
2	Minnesota		21.08%
3	Missouri		21.36%
4	Tennessee		21.72%
5	North Carolina		21.84%
6	Connecticut		21.97%
7	New Mexico		22.62%
8	South Dakota		22.94%
9	Utah		23.06%
10	Arkansas		23.25%
11	Ohio		23.36%
12	Georgia		23.65%
13	Colorado		23.86%
14	Alabama		23.86%
15	Louisiana		24.27%
16	Massachusetts		24.35%
17	Oklahoma		25.11%
18	Virginia		25.32%
19	Kentucky		26.18%
20	New York		26.23%
21	Maryland		27.03%
22	Indiana		27.24%
23	Pennsylvania		27.38%
24	Wisconsin		27.54%
25	Iowa		28.02%
26	Nebraska		28.12%
27	Michigan		28.35%
28	Illinois		28.40%
29	California		28.66%
30	Washington		28.68%
31	Arizona		30.25%
32	Wyoming		30.85%
33	Texas		31.80%
34	Oregon		32.26%
35	New Jersey		32.42%
36	Rhode Island		32.66%
37	South Carolina		32.89%
38	Florida		33.98%
39	Nevada		34.07%
40	Idaho		34.70%
41	Kansas		34.86%
42	District of Columbia		35.23%
43	Hawaii		35.68%
44	West Virginia		37.37%
45	North Dakota		37.70%
46	Mississippi		38.97%
47	New Hampshire		42.49%
48	Alaska		43.46%
49	Vermont		47.69%
50	Maine		48.15%
51	Montana		55.18%

Memo: U.S. 27.7%

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

MICHIGAN'S PERFORMANCE

Michigan has business tax burdens slightly above the U.S. average. On all three measures that have “All Taxes Paid by Business” in the numerator, Michigan ranks between 27 and 33 depending on the income used in the denominator, where a ranking of “1” indicates the lowest tax burden.

Certain taxes are salient to businesses. Taxes on property (both real and personal), corporate income, license fees, and personal income on pass-through business income are very apparent to businesses as they make location and expansion decisions. Other taxes, such as general sales taxes on business inputs, are less so. For this reason, we looked at states’ performance on measures of these key taxes as a share of personal income, of private-sector economic activity, and of business profits. In Michigan, key taxes make up 80% of the taxes Michigan businesses pay. See “Appendix C: Key Business Tax Burdens” on page C-1.

Michigan’s businesses have much higher tax burdens when only these taxes are considered. See “Michigan’s Business Tax Burdens” below.

TABLE 11. Michigan’s Business Tax Burdens

Measure	All Taxes Paid by Business		Key Taxes	
	Score	Rank	Score	Rank
Taxes Paid by Businesses/Personal Income	3.80%	29	3.03%	34
Taxes Paid by Businesses/ Private GSP	3.69%	33	2.95%	38
Taxes Paid by Businesses/ State Profits	28.35%	27	22.62%	31

Source: Anderson Economic Group LLC

STATE COMPARISONS

Some states scored very well on one or two measures, while others had the same score (low, medium or high) on all three. Michigan fell in the middle on all measures. See Table 12, “Michigan and 10 States with Lowest Business Tax Burdens,” on page 31 for each state’s performance on all four of our measures. We have highlighted the ten states with the lowest tax burdens by the criteria outlined in the next section.

Table 12. Michigan and 10 States with Lowest Business Tax Burdens

(Rank 1= Lowest Tax Burden)

	State & Local Taxes/		All Bus. Taxes/ Pers.		All Bus. Taxes/ Private		All Bus. Taxes/ State	
	Pers. Income	Rank	Income	Rank	GSP	Rank	Profits	Rank
Alabama	8.42%	1	2.65%	3	2.83%	8	23.86%	14
Alaska	10.63%	36	6.11%	51	4.99%	47	43.46%	48
Arizona	10.03%	22	3.13%	12	2.93%	12	30.25%	31
Arkansas	9.85%	15	2.58%	2	2.59%	3	23.25%	10
California	10.61%	34	3.66%	24	3.34%	22	28.66%	29
Colorado	8.78%	5	3.02%	8	2.85%	9	23.86%	13
Connecticut	10.80%	38	3.88%	33	3.65%	32	21.97%	6
Delaware	10.14%	25	5.34%	49	3.17%	19	17.41%	1
District of Columbia	13.74%	50	5.64%	50	3.28%	21	35.23%	42
Florida	9.83%	14	3.63%	23	3.77%	35	33.98%	38
Georgia	9.66%	12	3.12%	11	2.77%	4	23.65%	12
Hawaii	11.69%	47	3.20%	15	3.38%	24	35.68%	43
Idaho	10.18%	26	3.60%	21	3.59%	31	34.70%	40
Illinois	10.24%	28	4.29%	39	3.97%	39	28.40%	28
Indiana	9.96%	18	3.69%	26	3.37%	23	27.24%	22
Iowa	9.86%	16	3.82%	30	3.55%	28	28.02%	25
Kansas	10.90%	39	4.11%	37	4.10%	40	34.86%	41
Kentucky	10.18%	27	3.24%	16	3.14%	16	26.18%	19
Louisiana	10.63%	35	3.15%	14	2.91%	11	24.27%	15
Maine	12.62%	48	5.30%	48	5.63%	51	48.15%	50
Maryland	10.14%	24	2.81%	6	3.26%	20	27.03%	21
Massachusetts	10.00%	20	3.76%	28	3.50%	26	24.35%	16
Michigan	10.33%	31	3.80%	29	3.69%	33	28.35%	27
Minnesota	10.53%	33	3.34%	20	3.07%	14	21.08%	2
Mississippi	10.02%	21	3.73%	27	4.19%	43	38.97%	46
Missouri	9.26%	6	2.87%	7	2.81%	5	21.36%	3
Montana	9.48%	9	5.00%	45	5.57%	50	55.18%	51
Nebraska	11.19%	43	3.66%	25	3.55%	29	28.12%	26
Nevada	10.11%	23	3.97%	36	3.46%	25	34.07%	39
New Hampshire	8.54%	3	5.09%	46	5.14%	48	42.49%	47
New Jersey	10.92%	40	4.32%	41	4.19%	42	32.42%	35
New Mexico	10.94%	41	2.44%	1	2.49%	1	22.62%	7
New York	13.76%	51	4.93%	44	4.51%	46	26.23%	20
North Carolina	9.99%	19	3.30%	18	2.82%	6	21.84%	5
North Dakota	10.25%	29	4.27%	38	4.16%	41	37.70%	45
Ohio	10.97%	42	3.30%	19	3.16%	18	23.36%	11
Oklahoma	9.63%	11	2.78%	4	3.05%	13	25.11%	17
Oregon	9.53%	10	3.88%	34	3.82%	38	32.26%	34
Pennsylvania	10.35%	32	3.61%	22	3.52%	27	27.38%	23
Rhode Island	11.38%	44	4.39%	42	4.41%	45	32.66%	36
South Carolina	9.81%	13	3.83%	31	3.80%	37	32.89%	37
South Dakota	8.54%	4	3.13%	13	2.88%	10	22.94%	8
Tennessee	8.50%	2	2.79%	5	2.56%	2	21.72%	4
Texas	9.38%	8	4.29%	40	3.78%	36	31.80%	33
Utah	10.29%	30	3.11%	10	2.83%	7	23.06%	9
Vermont	11.59%	46	5.20%	47	5.38%	49	47.69%	49
Virginia	9.26%	7	3.11%	9	3.08%	15	25.32%	18
Washington	9.86%	17	3.24%	17	3.14%	17	28.68%	30
West Virginia	10.66%	37	3.88%	35	4.41%	44	37.37%	44
Wisconsin	11.57%	45	3.84%	32	3.59%	30	27.54%	24
Wyoming	12.96%	49	4.40%	43	3.70%	34	30.85%	32

Source: AEG Calculations

IV. Comparing Michigan's Tax Burdens

STATES WITH LOW BUSINESS TAX BURDENS

We identified ten states as having low business tax burdens. To be selected as one of these low-tax states, the state had to meet the following criteria:

1. Low overall tax burdens
States had to be one of twenty states with the lowest overall tax burdens as measured by total state and local taxes as a share of state personal income.
2. Low business tax burdens
States had to be one of twenty states with the lowest business share on *all three* of our business tax burden measures. (States that scored well on one or two but not all three measures were not selected as a low-tax state.)

In addition, we would not have included states with highly unusual geographies or economies (e.g. Alaska, Hawaii, or Wyoming), although none met our low-tax criteria.

Top Ten States. The states that met the two conditions stated above are: Alabama, Arkansas, Colorado, Georgia, Missouri, North Carolina, Oklahoma, South Dakota, Tennessee, and Virginia. See Table 13 below.

TABLE 13. States with Lowest Business Tax Burdens^a

	State & Local Taxes/ Pers. Income		Business Taxes/ Pers. Income		Business Taxes/ Private GSP		Business Taxes/ State Profits	
	%	Rank	%	Rank	%	Rank	%	Rank
Alabama	8.4	1	2.7	3	2.8	8	23.9	14
Arkansas	9.8	15	2.6	2	2.6	3	23.2	10
Colorado	8.8	5	3.0	8	2.9	9	23.9	13
Georgia	9.7	12	3.1	11	2.8	4	23.6	12
Missouri	9.3	6	2.9	7	2.8	5	21.4	3
North Carolina	10.0	19	3.3	18	2.8	6	21.8	5
Oklahoma	9.6	11	2.8	4	3.1	13	25.1	17
South Dakota	8.5	4	3.1	13	2.9	10	22.9	8
Tennessee	8.5	2	2.8	5	2.6	2	21.7	4
Virginia	9.3	7	3.1	9	3.1	15	25.3	18
<i>U.S.</i>	<i>10.4</i>	<i>na</i>	<i>3.7</i>	<i>na</i>	<i>3.5</i>	<i>na</i>	<i>27.7</i>	<i>na</i>
<i>Michigan</i>	<i>10.3</i>	<i>31</i>	<i>3.8</i>	<i>29</i>	<i>3.7</i>	<i>33</i>	<i>28.4</i>	<i>27</i>

Source: Anderson Economic Group LLC

a. 1 = low tax burden

Comparing Michigan's Tax Burdens

Some states, like New Hampshire, scored very well on one measure. New Hampshire does not have a sales tax and only taxes dividend and interest income with its personal income tax. This explains why New Hampshire's total state and local taxes as a share of personal income is one of the lowest among the states and the District of Columbia. However, on the other measures that include taxes paid by businesses in the numerator, New Hampshire is a state with one of the highest tax burdens on businesses.

As Table 13 on page 32 illustrates, all of the states we identified as having low business tax burdens are from the South or West. No states from New England or the Midwest made this list. It is also interesting that all states with the lowest tax burdens, except South Dakota, have individual income, sales, and corporate income taxes. South Dakota does not have an individual income tax. States like Nevada that do not have sales and corporate income tax did not make our top ten list.

MICHIGAN AND DIRECT COMPETITOR STATES

As part of a global economy, Michigan today competes with all 50 states and other countries for jobs. However, there are some states that directly compete with Michigan due to geography or industry mix. We look at three groups of competitor states below.

Great Lakes Region

Michigan has some of the highest business tax burdens in the Great Lakes region. On all three of our business tax measures, Illinois is the only Great Lakes state that consistently has higher tax burdens. Wisconsin businesses face similar burdens, while Indiana, Ohio and Pennsylvania have lower business tax burdens than Michigan, no matter what metric is used. See Table 14.

TABLE 14. Great Lakes States' Performance on Business Tax Burden Measures^a

	State&Local Taxes/ Pers. Income	Business Taxes/ Pers. Income	Business Taxes/ Private GSP	Business Taxes/ State Profits
Michigan	31	29	33	27
Illinois	28	39	39	28
Indiana	18	26	23	22
Ohio	42	19	18	11
Pennsylvania	32	22	27	23
Wisconsin	45	32	30	24

Source: Anderson Economic Group LLC

a. 1 = low tax burden

Automotive Industry

We have identified automotive manufacturing states on the basis of employment in automotive manufacturing and the presence of OEM (Original Equipment Manufacturers) and OES (Original Equipment Suppliers) plants and employees.¹³ The automotive industry is a cornerstone of Michigan's economy and competes with other states for jobs. Below we show the change in automotive manufacturing employment for auto-oriented states, along with their performance on our business tax burden measures.

TABLE 15. Auto-Manufacturing States' Performance: Employment, Business Tax Measures

	Change in Auto Mfg. Employment 1998-2004	Auto Mfg. Jobs Gained/ Lost 1998-2004	Business Taxes/ Pers. Income	Business Taxes/ Private GSP	Business Taxes/ State Profits
Michigan	-19.0%	-47,947	29	33	27
Alabama	21.0%	3,692	3	8	14
Georgia	1.9%	417	11	4	12
Illinois	-8.6%	-3,724	39	39	28
Indiana	-3.6%	-4,743	26	23	22
Kentucky	16.3%	7,097	16	16	19
Mississippi	-16.7%	-2,544	27	43	46
Missouri	-4.4%	-1,626	7	5	3
Ohio	-13.9%	-20,615	19	18	11
South Carolina	28.6%	5,635	31	37	37
Tennessee	10.3%	5,207	5	2	4

Sources: U.S. Census County Business Patterns, Anderson Economic Group LLC

Over half of our auto-oriented states lost automotive manufacturing jobs between 1998 and 2004. Several states—Alabama, Kentucky, South Carolina, and Tennessee—gained over a thousand auto jobs during the same time period. Two states that we have identified as low-tax states by our metrics, Alabama and Tennessee, gained employment in the auto industry. Missouri, which we have identified as a low-tax state, lost 4.4% of its automotive manufacturing employment between 1998 and 2004. South Carolina, which has above average tax burdens according to our measures, gained the highest percentage of automotive manufacturing employment.¹⁴

13. We used NAICS codes to identify automotive manufacturing employment. The NAICS codes we used are 3361, 3362, and 3363. The state had to have a large presence of OEM or OES jobs to be classified as “auto-oriented.”

14. The expansion and/or location decision of one automotive manufacturer can greatly influence the overall auto manufacturing employment in a state. For example, most of South Carolina's gain in auto jobs between 1998 and 2004 can be explained by BMW's expansion in that state.

There are several reasons why employment in the auto industry will vary in a state during a given time period. A state's specific auto manufacturers may expand or reduce operations based on factors other than taxes. Consumer demand fluctuations may impact employment in a state. Shifting supply and production chains to other locations will also affect a state's automotive employment.

The experience of individual states, however, suggests that taxes can be used to attract automotive companies to a particular state. Nissan recently moved its manufacturing plant from Gardena, California to Franklin, Tennessee, relocating 1,300 jobs. The City of Franklin offered Nissan an incentive package that included a \$15 million parcel for a new headquarters and the creation of a tax increment financing district for the project.¹⁵ Another recent example is Toyota's move of 2,000 jobs to San Antonio in 2003. The San Antonio Economic Development Foundation offered Toyota a \$400 million incentive package that included a 2,600 acre site for the building.¹⁶ Lower business tax burdens can be important factors when a company is deciding where to locate.

High-Tech Industry

We have identified ten states that have a high concentration of high-tech industries within the state. These states are: California, Colorado, Connecticut, Indiana, Kansas, Maryland, Massachusetts, Michigan, Virginia, and Washington.

In this report, a "high-tech" state is one with a high fraction of its employment in high-tech industries, as defined by the Commerce Department.¹⁷ This measures the high-tech intensity of a state's economy rather than the absolute size of the state's high-tech sector. This results in the omission of some states, like Texas, that have high-tech sectors that are sizeable but do not employ a large fraction of the state's workforce. Examples of industries counted as "high-tech" by the Commerce Department include high-tech manufacturing (of consumer goods, chemicals, and machinery), computer programming services, business consulting services (such as marketing consulting and management consulting), internet service providers, and research and development in the physical, engineering, life, and social sciences.

15. Bruns, Adam, "Here and Abroad: The Top Deals of 2005 show that the climate for global corporate investment is anything but flat," *Site Selection*, May 2006.

16. Starner, Ron, "The Tex-Mex Effect: Four of the top ten deals of the year go to bordering competitors," *Site Selection*, May 2004.

17. Office of Technology Policy, "The Dynamics of Technology-based Economic Development," Fourth Edition, March 2004

TABLE 16. High Tech States' Performance on Business Tax Burden Measures^{a b}

	State&Local Taxes/ Pers. Income	Business Taxes/ Pers. Income	Business Taxes/ Private GSP	Business Taxes/ State Profits
Michigan	31	29	33	27
California	34	24	22	29
Colorado	5	8	9	13
Connecticut	38	33	32	6
Indiana	18	26	23	22
Kansas	39	37	40	41
Maryland	24	6	20	21
Massachusetts	20	28	26	16
Virginia	7	9	15	18
Washington	17	17	17	30

Source: Anderson Economic Group LLC

a. 1 = low tax burden

b. The “high tech” states listed here had the highest percentage of their workforce employment in high tech sectors in 2001. High tech industry NAICS codes are defined by the Commerce Department’s Office of Technology Policy in “The Dynamics of Technology-based Economic Development,” Fourth Edition, March 2004.

The business tax burden picture of high-tech states is mixed; the ten high-tech states include low-tax states like Colorado and Virginia and high-tax states like Kansas and Connecticut. Among these ten high-tech states, Michigan has the third highest Business Taxes/Personal Income ratio, and second highest business Taxes/Private GSP ratio.

MEASURING THE TAX BURDEN GAP

Michigan is not one of the ten states with the lowest tax burdens on business. For each of our measures, we identified a threshold tax burden as the low-tax state with the highest tax burden on each of our measures. We then calculated how much the amount of taxes paid by businesses would need to fall for Michigan to have tax burdens similar to the threshold state.

North Carolina and Virginia are our benchmark states. Of our group of top ten low-tax states, North Carolina had the highest tax burdens when we look at business taxes as a share of personal income. Virginia has the highest business tax burdens when we take business taxes as a share of private GSP and state profits. See Table 17.

TABLE 17. Performance Benchmarks

Benchmark	Benchmark State	Business Tax Burden
Taxes Paid by Business/Personal Income	North Carolina	3.30%
Taxes Paid by Business/ Private GSP	Virginia	3.08%
Taxes Paid by Business/ State Profits	Virginia	25.32%

Source: Anderson Economic Group, LLC

As a share of personal income, taxes paid by businesses would need to fall by 13%, or \$1.6 billion, for Michigan to meet our criteria as a low-tax state. As a share of private sector gross state product, taxes would need to fall by 16.6%, or \$2.0 billion. Finally, as a share of business profits, taxes would need to be \$1.3 billion lower for Michigan to be a low tax state.

TABLE 18. Tax Burden Gap Between Michigan and Low-Tax State

	Business Taxes/ Personal Income	Business Taxes/ Private GSP	Business Taxes/ State Profits
Michigan	3.80%	3.69%	28.35%
Low-Tax State Threshold ^a	3.30%	3.08%	25.32%
Percentage Point Difference	0.50%	0.61%	3.03%
Gap in 2004 Dollars (in millions)	\$1,605.9	\$2,044.3	\$1,316.5
<i>Memo: Tax Reduction Assuming 2% Increase in Economic Growth</i>	<i>\$1,353.8</i>	<i>\$1,723.0</i>	<i>\$1,107.7</i>

Source: Anderson Economic Group, LLC

a. North Carolina sets the low-tax state threshold for Business Taxes/Personal Income, while Virginia is the low-tax state benchmark for the other two measures.

As Table 18 shows, Michigan businesses pay about 3 percentage points more in taxes as a share of profits than businesses in the low-tax threshold state. Another way of looking at this is that Michigan residents pay 0.5 percentage points more of their personal income in business taxes than low-tax states.

Estimates of Tax Gap with Positive Economic Growth. Assuming that Michigan levied lower taxes on businesses in 2004, economic reasoning suggests that personal income, private gross state product, and business profits would all be positively affected. The argument for this assertion is that lower taxes produce more economic activity, thereby increasing these income mea-

tures and lowering the amount that taxes would need to fall in order for Michigan to be one in our group of top ten low-tax states.

In his testimony before the Tax Policy Committee of the Michigan House of Representatives in February 2006, economist Timothy Bartik stated that after reviewing the economic literature, the “scholarly consensus” is that the effect of a 10% tax cut on all business taxes increases economic activity by 2% in the long-run.¹⁸

We can not be certain of the effect a tax burden reduction would have on economic growth. However, assuming that a 10% decrease in all business taxes increases business activity by 2%, we estimate that taxes collected by Michigan businesses would need to fall an amount equivalent to 9%-14% of business taxes in 2004, or between \$1.1 billion and \$1.7 billion, depending on the tax burden measure. This is less than our \$1.6 billion to \$2.0 billion estimate that assumed the income measures remained static. See Table 18 on page 37.

CONCLUSION

Our analysis indicates that Michigan taxes are not the highest among the states, but they are not the lowest either. We observed the following in our comparison of Michigan's tax burdens to other states:

- Overall state and local taxes as a share of personal income are slightly below the national average in Michigan.
- Business tax burdens are slightly above the national average in Michigan.
- Key business taxes, such as those on business income and property, are well above the national average.

Michigan businesses pay 3 percentage points more in taxes as a share of profits than businesses in low-tax states. For Michigan to have business tax burdens similar to those in low-tax states, business taxes would need to fall between \$1.6 billion to \$2 billion.

Business taxes are important but not the only important factor as firms make location and expansion decisions. A trained workforce, access to markets, public services, and infrastructure are also important. We will evaluate state performance in two of these areas, education and infrastructure, in our upcoming *Benchmarking for Success* reports.

18. Bartik refers to his own study (1991) and that of Michael Wasylenko (1997) that estimated the interregional elasticity to be -0.2. See “Taxes Matter: Location Decisions” on page 18.

V. Bibliography

Anderson, Patrick, and Ilhan Geckil. "The Tax Burdens of Michigan's Single Business Tax," Anderson Economic Group, 2005.

Anderson, Patrick, Ian Clemens, and Christine Reading. "Michigan Business Climate Benchmarking Study," Anderson Economic Group, 2000.

Anderson, Patrick. "Michigan in the Current Recovery: A Historical Perspective," The Heartland Institute, December 1986.

Bartik, Timothy J. "Business Location Decisions in the United States: Estimates of the Effects of Unionization, Taxes, and Other Characteristics of States," *Journal of Business & Economic Statistics*, Vol. 3, No. 1., January 1985.

Bartik, Timothy J. "Michigan's Business Taxes and Economic Development: Possible Reforms," Testimony prepared for the Tax Restructuring Subcommittee, Tax Policy Committee, Michigan House of Representatives, February 14, 2006.

Cline, Robert, John Mikesell, Tom Neubig, Andrew Phillips. "Sales Taxation of Business Inputs," Council on State Taxation, January 2005.

Cline, Robert, Tom Neubig and Andrew Philips, with William Fox. "Total State and Local Business Taxes, Nationally 1980-2004 and by State 2000-2004," Ernst & Young LLP for the Council On State Taxation, April 2005.

Dubay, Curtis S., Scott A. Hodge. "State Business Tax Climate Index," Tax Foundation Background Paper No. 51, February 2006.

Fisher, Peter. "Grading Places: What Do the Business Climate Rankings Really Tell Us?" Economic Policy Institute, Washington D.C., 2005.

Goolsbee, Austan. "The Impact and Inefficiency of the Corporate Income Tax: Evidence from State Organizational Forms," NBER Working Paper No. w9141, 2002.

Hines Jr., James R. "Altered States: Taxes and the Location of Foreign Direct Investment in America," *The American Economic Review*, vol. 86, no. 5, 1996.

Hodge, Scott A., J. Scott Moody, Wendy P. Warcholik. "State Business Tax Climate Index," Tax Foundation Background Paper No. 45, October 2004.

Newman, Robert. "Industry Migration and Growth in the South," *The Review of Economics and Statistics*, vol. 65, 1983.

Papke, Leslie. "Interstate Business Tax Differentials and New Firm Location: Evidence from Panel Data," *Journal of Public Economics*, vol. 45, 1991.

Smith, Adam. *An Inquiry into the Nature and Causes of The Wealth of Nations*, University of Chicago Press, Chicago 1976.

Tannenwald, Robert. "Massachusetts Business Taxes: Unfair? Inadequate? Uncompetitive?" Federal Reserve Bank of Boston Working Paper No. 04-4, August 2004.

Wasylenko, Michael. "Taxation and Economic Development: The State of the Economic Literature," *New England Economic Review*, March/April 1997.

Appendix A: Methodology & Data for Tax Measures

METHODOLOGY: TAXES PAID BY BUSINESSES

State-specific estimates for all taxes paid by businesses include several categories of taxes. For each type of tax we estimated the initial incidence of the tax on business. Below we detail our methodology for apportioning each tax.

Property taxes. The U.S. Census State and Local Government Finances survey reports state and local property taxes collected by state for fiscal year 1999-2000. The business share of property taxes paid in 2000 was calculated as the residual of total property taxes collected in 2000 less property taxes paid on owner-occupied units. We then applied the same fraction from the 2000 business share to property taxes collected in 2004.

The Census of Housing (2000) provides an aggregate figure of taxes paid on owner-occupied units for each state. As other studies, Tannewald (2004) and COST (2005), have done, we treat taxes paid on rental housing as business taxes.

Select Excise Taxes

Motor fuel sales tax. The U.S. Census State and Local Government Finances Survey provides the sales tax from motor fuel sales in 2004. We allocated a portion of this tax as paid by businesses based each state's diesel fuel sales share of total diesel and gas sales. We assumed that companies, rather than households, purchase diesel and pay this tax. We obtained the diesel and motor gasoline fuel sales by state from the U.S. Energy Information Administration.

Public utilities tax. We allocated all of this category as tax paid by businesses.

Other Selective Sales tax. We split remaining selective sales taxes 50-50 between households and businesses.

Corporate income tax. The U.S. Census of Governments State and Local Finances reports this category for 2004. We allocated all revenue raised by taxes on corporate income to businesses.

License taxes. The U.S. Census State Government Finances survey provides license taxes by subcategory. We allocated amusement, corporation, public utility, and occupation and business license taxes to businesses. We allocated motor vehicle license taxes based on the same ratio of diesel to total fuel sales used to apportion the motor fuel sales tax. We allocated to business the same portion of local license fees as used for state license fees.

Unemployment compensation. We allocated all of the unemployment compensation revenue reported by the U.S. Census to businesses.

Individual income tax on pass-through business income. In order to estimate the amount of individual taxes paid on pass-through business income, we turned to data provided by the Internal Revenue Service's Statistics of Income (SOI). We used returns data on net income less deficit reported in 2003 for partnerships, "S" Corporations, and sole proprietorships to determine the national profits for these types of firms. We allocated the national profits to states based on each state's share of proprietorship income, as reported by the Bureau of Economic Analysis (BEA). Proprietorship data reported by the BEA includes partnerships and "S" Corporation income in addition to income from sole proprietorships.

After allocating profits from these types of firms to each state, we calculated the appropriate tax rate for these profits. We calculated the average individual income tax rate by dividing each state's individual income tax revenue in 2003-04 by the state's adjusted gross income (AGI) from the SOI. We then created a weighted personal income tax rate that consisted of 1/3 the top individual tax rate and 2/3 the average tax rate. Individual income taxes on pass-through business income was thus profits from these firms times each state's weighted tax rate.

**METHODOLOGY:
PROFITS EARNED
WITHIN EACH STATE**

One of our metrics in this study is business taxes as a share of state profits. For the denominator in this measure, we had to estimate total business profits earned within each state. We first had to determine national profits for different types of firms. We relied on tax return data from the IRS to determine profits in each industry in the United States. We used information published by the IRS to find out profits by major industries in 2002 for "C" corporations, "S" Corporations, partnerships, and sole proprietorships.

We allocated profits to each state using a two-factor approach. We first looked at each state's share of employment in each industry using the 2002 U.S. Economic Census. We allocated profits by industry to each state using each state's share of national payroll in that industry. A state's total profit is the sum of all the profits by industry in that state. Next, we allocated national profits to each state by each state industry's share of total GSP in 2003. The state's total profit was the sum of all industry profits in that state. Finally, we averaged the profits given by these two approaches to obtain each state's total profits.

DATA

Tables on the following pages include:

Table A-1. State and Local Tax Revenue, 2003-04

Table A-2. All Taxes Paid by Businesses, 2004

Table A-3. Input Data for Business Tax Burden Measures

Table A-2. All Taxes Paid by Businesses, FY 2004

(Dollar amounts in thousands)

	Property Tax	Motor Fuel Sales Tax	Public Utilities Sales Tax	Other Selective Sales Tax	Corporate Income	License Fees	Unemployment compensation	Individual income tax on pass-thru business income	Total Taxes Paid by Businesses	
								(using weighted rate)	(thousands)	(billions)
United States	\$ 191,905,939	\$ 8,808,804	\$ 21,426,576	\$ 20,877,962	\$ 33,715,793	\$ 23,181,855	\$ 38,361,503	\$ 23,675,052	\$ 361,953,484	\$ 362.0
Alabama	1,188,015	139,045	645,400	247,767	292,051	241,921	305,105	259,965	3,319,269	3.3
Alaska	624,598	16,796	3,983	40,828	339,564	34,821	305,105	-	1,365,695	1.4
Arizona	3,399,325	146,300	177,149	216,565	525,650	116,248	259,699	303,669	5,144,604	5.1
Arkansas	730,785	166,240	85,957	77,182	181,830	79,925	277,031	225,992	1,824,942	1.8
California	19,647,559	660,960	2,832,218	1,679,347	6,925,916	3,728,255	4,950,881	5,757,016	46,182,152	46.2
Colorado	3,185,267	156,152	127,983	201,300	239,591	121,047	429,302	548,973	5,009,615	5.0
Connecticut	3,750,921	78,573	195,646	399,673	379,822	175,076	736,669	463,296	6,179,675	6.2
Delaware	249,447	19,914	38,759	77,188	217,768	799,594	91,065	82,956	1,576,691	1.6
District of Columbia	851,586	2,196	224,445	75,045	168,353	1,936	131,575	172,631	1,627,767	1.6
Florida	11,445,686	495,444	3,523,819	1,079,207	1,441,338	686,421	1,199,007	-	19,870,922	19.9
Georgia	5,248,130	196,104	221,368	425,513	494,701	252,872	757,610	682,270	8,278,568	8.3
Hawaii	521,516	59,890	160,957	132,702	58,119	92,972	182,163	108,839	1,317,157	1.3
Idaho	708,699	72,315	15,495	48,749	103,784	112,218	134,534	150,814	1,346,607	1.3
Illinois	9,860,788	378,715	2,657,275	1,090,898	1,278,538	1,262,634	1,718,588	671,741	18,919,178	18.9
Indiana	4,439,539	259,224	24,477	514,570	644,787	175,503	551,354	315,156	6,924,611	6.9
Iowa	2,162,545	136,368	43,033	198,461	89,826	274,333	342,209	249,280	3,496,055	3.5
Kansas	2,205,123	143,659	126,610	85,688	166,609	134,222	376,017	249,439	3,487,366	3.5
Kentucky	1,368,846	137,517	207,280	526,002	381,538	358,904	396,886	272,029	3,649,003	3.6
Louisiana	1,831,277	208,169	172,526	509,858	236,745	320,370	280,909	313,187	3,873,040	3.9
Maine	1,558,972	52,442	8,723	42,523	111,616	82,406	114,199	121,477	2,092,358	2.1
Maryland	3,050,610	137,066	496,041	603,795	569,700	242,424	528,319	554,512	6,182,466	6.2
Massachusetts	5,827,847	97,811	-	409,382	1,301,076	221,304	1,530,103	767,570	10,155,094	10.2
Michigan	6,932,146	187,331	85,911	425,186	1,841,010	402,929	1,789,117	643,824	12,307,454	12.3
Minnesota	2,949,604	170,112	64,890	729,164	637,183	437,688	715,090	466,422	6,170,153	6.2
Mississippi	1,482,164	151,593	48,796	180,856	243,846	198,561	198,974	132,891	2,637,680	2.6
Missouri	2,717,855	189,093	355,671	404,854	224,366	319,584	440,289	396,055	5,047,767	5.0
Montana	732,936	67,709	28,169	74,450	67,723	96,324	84,876	128,813	1,281,000	1.3
Nebraska	1,195,474	119,889	82,334	46,810	167,429	118,688	140,625	194,478	2,065,726	2.1
Nevada	1,403,160	119,070	159,277	668,758	-	498,893	283,847	-	3,133,004	3.1
New Hampshire	1,552,462	24,996	65,581	183,304	407,603	91,258	95,679	3,259	2,424,142	2.4
New Jersey	8,735,031	130,071	958,707	574,045	1,896,998	827,789	1,705,556	833,039	15,661,237	15.7
New Mexico	461,755	69,556	60,357	155,494	138,196	67,203	130,076	132,670	1,215,306	1.2
New York	20,303,145	70,994	1,452,013	2,347,254	5,362,907	372,561	3,105,342	3,293,295	36,307,510	36.3
North Carolina	3,855,842	280,933	319,730	595,590	837,085	589,281	1,086,455	698,469	8,263,384	8.3
North Dakota	395,054	54,575	40,962	62,263	49,807	73,619	61,053	55,156	792,489	0.8
Ohio	6,552,419	361,625	294,888	278,280	1,060,594	1,170,863	1,069,701	999,952	11,788,322	11.8
Oklahoma	1,028,786	159,552	119,395	94,794	133,309	464,553	296,443	432,664	2,729,495	2.7
Oregon	1,934,786	132,771	181,179	70,106	320,065	293,365	888,534	444,005	4,264,812	4.3
Pennsylvania	5,955,010	437,629	1,032,989	468,247	1,677,998	1,810,623	2,697,705	821,504	14,901,704	14.9
Rhode Island	1,047,346	24,134	88,640	79,086	69,479	44,829	184,005	82,903	1,620,423	1.6
South Carolina	2,945,281	111,813	121,537	190,829	196,510	231,080	349,822	222,102	4,368,974	4.4
South Dakota	479,321	45,802	3,427	56,870	47,108	86,371	20,844	1	739,744	0.7
Tennessee	2,215,486	205,348	57,052	282,517	694,798	818,917	618,203	12,605	4,904,927	4.9
Texas	17,986,690	867,168	1,706,869	2,367,293	-	3,089,255	3,589,784	-	29,607,058	29.6
Utah	1,057,223	116,137	104,878	119,538	145,005	64,521	168,434	228,209	2,003,944	2.0
Vermont	649,364	15,577	12,241	133,865	62,228	35,710	64,950	50,759	1,024,693	1.0
Virginia	4,931,988	218,844	697,423	771,693	422,119	322,192	466,834	555,784	8,386,876	8.4
Washington	3,509,298	253,490	767,770	486,199	-	337,052	1,690,929	-	7,044,737	7.0
West Virginia	770,065	75,219	223,021	238,559	181,515	86,319	139,268	97,020	1,810,986	1.8
Wisconsin	3,852,505	252,158	286,063	99,329	681,990	483,166	720,921	403,020	6,779,152	6.8
Wyoming	590,237	44,840	17,662	10,499	-	63,171	35,157	-	761,566	0.8

Base Data: U.S. Census of Governments State and Local Finance Survey

Data: AEG Calculations

Analysis: Anderson Economic Group, LLC

Table A-3. Input Data for All Taxes Paid by Businesses Measures, FY 2004

(Dollar amount in thousands)

	Total State & Local Taxes, 2004	All Taxes Paid by Businesses, 2004	Private GSP, 2004	Business Profits (2 Factors)	Personal Income, 2004
United States	\$ 1,010,277,275	\$ 361,953,484	10,276,577,000	\$ 1,306,583,266	\$ 9,702,525,000
Alabama	10,535,366	3,319,269	117,297,000	13,908,707	125,166,703
Alaska	2,375,631	1,365,695	27,355,000	3,142,779	22,340,402
Arizona	16,481,174	5,144,604	175,539,000	17,005,538	164,323,943
Arkansas	6,973,165	1,824,942	70,508,000	7,850,368	70,809,895
California	133,893,624	46,182,152	1,383,044,000	161,165,859	1,262,454,026
Colorado	14,581,562	5,009,615	175,721,000	20,994,030	166,152,653
Connecticut	17,220,114	6,179,675	169,454,000	28,133,713	159,435,002
Delaware	2,994,328	1,576,691	49,763,000	9,058,632	29,527,185
District of Columbia	3,963,547	1,627,767	49,579,000	4,620,551	28,839,355
Florida	53,789,454	19,870,922	527,668,000	58,472,935	547,311,531
Georgia	25,654,760	8,278,568	299,026,000	35,007,666	265,537,511
Hawaii	4,812,056	1,317,157	38,939,000	3,691,848	41,175,569
Idaho	3,805,827	1,346,607	37,497,000	3,880,285	37,393,570
Illinois	45,190,729	18,919,178	477,088,000	66,623,308	441,485,267
Indiana	18,675,024	6,924,611	205,587,000	25,423,976	187,565,068
Iowa	9,018,748	3,496,055	98,545,000	12,476,554	91,499,771
Kansas	9,241,973	3,487,366	85,092,000	10,004,172	84,809,871
Kentucky	11,460,494	3,649,003	116,340,000	13,939,029	112,565,602
Louisiana	13,065,430	3,873,040	133,105,000	15,960,797	122,913,214
Maine	4,982,541	2,092,358	37,176,000	4,345,708	39,481,808
Maryland	22,331,127	6,182,466	189,643,000	22,868,916	220,261,099
Massachusetts	27,015,147	10,155,094	290,485,000	41,700,210	270,144,644
Michigan	33,478,182	12,307,454	333,427,000	43,407,692	324,133,954
Minnesota	19,423,637	6,170,153	201,187,000	29,268,861	184,514,849
Mississippi	7,088,719	2,637,680	62,905,000	6,768,439	70,770,022
Missouri	16,255,378	5,047,767	179,608,000	23,630,697	175,610,709
Montana	2,431,335	1,281,000	22,994,000	2,321,379	25,642,844
Nebraska	6,307,884	2,065,726	58,108,000	7,346,175	56,393,335
Nevada	7,971,598	3,133,004	90,459,000	9,195,326	78,875,571
New Hampshire	4,069,671	2,424,142	47,153,000	5,705,509	47,660,890
New Jersey	39,558,277	15,661,237	373,825,000	48,309,312	362,189,814
New Mexico	5,444,158	1,215,306	48,839,000	5,373,644	49,777,827
New York	101,426,262	36,307,510	804,938,000	138,445,584	737,038,528
North Carolina	25,012,464	8,263,384	293,473,000	37,828,913	250,285,714
North Dakota	1,901,047	792,489	19,061,000	2,102,177	18,553,456
Ohio	39,151,223	11,788,322	373,496,000	50,462,335	356,773,618
Oklahoma	9,434,943	2,729,495	89,371,000	10,869,361	98,019,976
Oregon	10,474,210	4,264,812	111,717,000	13,220,377	109,935,032
Pennsylvania	42,717,857	14,901,704	423,153,000	54,423,701	412,590,849
Rhode Island	4,202,266	1,620,423	36,734,000	4,961,210	36,935,647
South Carolina	11,176,606	4,368,974	115,031,000	13,285,063	113,988,229
South Dakota	2,015,928	739,744	25,674,000	3,224,461	23,602,399
Tennessee	14,946,638	4,904,927	191,357,000	22,586,459	175,884,974
Texas	64,738,772	29,607,058	782,272,000	93,118,203	690,376,069
Utah	6,621,225	2,003,944	70,830,000	8,689,232	64,375,986
Vermont	2,286,183	1,024,693	19,030,000	2,148,664	19,721,154
Virginia	25,002,305	8,386,876	272,470,000	33,123,073	269,861,839
Washington	21,424,928	7,044,737	224,440,000	24,564,888	217,240,119
West Virginia	4,967,505	1,810,986	41,071,000	4,846,577	46,619,385
Wisconsin	20,440,988	6,779,152	188,897,000	24,611,719	176,635,877
Wyoming	2,245,265	761,566	20,606,000	2,468,655	17,322,645

IRS, BEA, AEG

Data: AEG, Census of Gov'ts AEG Estimate BEA Estimate BEA

Analysis: Anderson Economic Group LLC

Appendix B: General Sales Tax Analysis

Our tax burden measures include taxes whose initial incidence is on business. The initial incidence of the general sales tax is largely on consumers. The one exception is sales tax paid by businesses on non-exempt business input purchases. We attempted to allocate a portion of this tax to business.

Below we describe several different estimates of the state general sales tax that businesses pay. However, due to the lack of direct data on business purchases, and the wide variance in business share that various approaches yield for the same state, we have excluded this tax from our business tax calculations and tax burden measures.

BUSINESS SHARE CALCULATIONS

Ring (1999) Business Share Estimates. Raymond Ring details his methodology for estimating consumers' share and producers' share of the general sales tax in his 1999 article.¹⁹ Ring uses the 1989 Consumer Expenditure Survey (CES) data. This survey presents household expenditures by income brackets for a variety of consumer goods. Ring calculates consumers' share (SHARE) of the general sales tax as:

$$\text{SHARE} = \text{CP} / (\text{CP} + \text{BP})$$

where CP represents the sales tax on purchases by resident consumers and BP represents other sales tax revenue. He concludes that BP includes mainly business purchases.

Ring constructs a tax base of items households purchase that are subject to the general sales tax. Ring then fits all states into general tax base categories based on whether the state taxes or exempts food consumed at home, clothing, utilities, and gasoline. He makes sure to exclude these items from the tax base in states where these items are exempt. Because the CES figures should include sales and excise taxes, he adjusts for this by dividing the estimated consumer tax base in each state by 1.0606, where 6.06% is the weighed average state and local tax rate for states with a general sales tax in 1989.

Ring must estimate each state's share of spending since state-specific CES data does not exist. Once he calculated the average expenditures subject to a sales tax for consumer units in each income bracket, he then had to estimate the number of consumer units in each state. The Census reports the number of households in each state, but the CES data reports expenditures for consumer units, a slightly different concept. Each family and each person living alone constitute a house-

19. Raymond J. Ring, Jr. "Consumers' Share and Producers' Share of the General Sales Tax," *National Tax Journal*, March 1999.

hold and a consumer unit. The two definitions are compatible for these groups. However, while the Census treats unrelated individuals living together in a single housing unit as one household, the CES treats them as a single consumer unit only if they “pool their income to make joint expenditure decisions.” Persons who are financially independent but live in the same house are treated as separate consumer units. Consequently, there are more consumer units than households in the U.S.

To correct for this, Ring estimates the number of financially independent and unrelated consumer units in each state. First, he subtracts the number of households in the U.S. from the number of consumer units in the U.S. to estimate the number of financially independent consumer units in the U.S. Next, he estimates the ratio of financially independent, unrelated consumer units to the number of unrelated persons living in non-family multi-member households. This ratio tells him the number of unrelated persons that should be grouped into consumer units. By multiplying the ratio times the unrelated individuals living in multi-member households in each state, Ring estimates the additional number of consumer units in each state that are financially independent. A state’s nonfamily consumer units are given by the number of non-family household plus the number of financially independent consumer units. A state’s total number of consumer units is equal to the number of family and non-family households.

Ring then multiplies the average consumer unit expenditures subject to a sales tax by the number of consumer units each state. After adjusting for travel purchases by residents out of state, he applies state tax rates to estimate the sales tax figure consumer residents have paid. He then calculates the SHARE, or business tax portion. For more details, see his article.

AEG Consumer Expenditure Survey (CES) Methodology. We followed a methodology similar to Ring’s to construct our own consumers’ and producers’ share estimates of the general sales tax. We used the 2002 Consumer Expenditure Survey to construct average household expenditures that are subject to state sales tax. The items included in this tax base are:

1. Food at home
2. Food away from home
3. Alcoholic beverages
4. Housing: maintenance, repairs, insurance, other expenses
5. Utilities, fuels, and public services
6. Household operations
7. Housekeeping supplies
8. Household furnishings and equipment
9. Apparel and services
10. Vehicle purchases (net outlay)

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11. Gasoline and motor oil
 12. Vehicle: maintenance and repairs
 13. Vehicle: rental, leases, licenses, other charges
 14. Drugs
 15. Medical supplies
 16. Entertainment
 17. Personal care products and services
 18. Reading materials
 19. Tobacco products and smoking supplies

The survey does not provide average expenditures by household for each state, but does do so by region. We broke the states into the four regions the survey uses: Northeast, Midwest, South, and West. Like Ring, we used the average household expenditures by income bracket to capture the differences in consumer expenditures between the states based on the number and spending patterns of consumer units with different income levels.

The 2002 American Community Survey by the U.S. Census gave us the number of family and non-family households in each state by income brackets as well as the number of independent persons living in non-family, multi-member households. We used Ring's methodology to determine the number of consumer units in each state.

We also relied on Ring for exempted items in the consumer tax base of each state. Once we had constructed a tax base for each state, we adjusted it to account for sales taxes included in the CES figures, and then we multiplied the tax base by the state tax rate to determine the sales tax paid by household consumers. We then divided consumer tax revenue by the general state sales tax revenue in each state to arrive at the consumers' share of the general sales tax revenue. Each state's business share of the general sales tax is one minus the consumer share.

AEG Exempted Items Methodology. We used state variation in items exempted from the sales tax to estimate business share. Using the "AEG Consumer Expenditure Survey" methodology detailed above, we constructed the same tax base for each state. The variation in the state tax bases comes from the different number of households in each state by income bracket, as well as the different average regional household expenditures. We then calculated the exempted amount of sales for each state based on the tax base categories from Ring's study.

For each state we calculated the ratio of exempted expenditures to total expenditures and then applied this ratio to the average exempted amount of the states.

We assumed that states that exempted fewer consumer expenditures had a lower business share of sales tax revenue.

Once we had normalized the exempted share ratio, we multiplied this ratio by our assumed business share percentage based on other studies, 34%, which we applied uniformly across the states. Those with a lower share of exempted consumer items had a business share lower than the assumed average of 34%, while more consumer exemptions yielded a higher business share.

COST Business Share Estimates. The COST authors reveal their general methodology for estimating business' share of general sales tax collections in their 2005 sales tax study.²⁰

The COST state-specific estimates of business share are derived from the Ernst & Young 50-state sales tax model. According to their description, this model includes "state-specific, industry-by-industry flows of business intermediate input and investment purchases based on national input-output relationships and state output estimates." Their model also includes estimates of household purchases by category of spending. They then take into account each state's tax treatment of household and business purchases to produce estimates of total sales and use taxes on business intermediate inputs, business investment purchases, and consumer expenditures.

The full details of their methodology, as well as the specific data the authors used to construct their business share estimates, are not included in their report.

DATA

The following data tables include four state-specific estimates of business' share of the general sales tax; two of these estimates are by AEG and two from previous studies. Table B-3 includes state-specific business tax figures that includes general sales taxes paid by business using each of the estimation methodologies mentioned above. The last three tables present our business tax burden measures that include estimates of general sales taxes paid by business.

Table B-1. Four Different Estimates of Business' Share of General Sales Tax Revenue

Table B-2. Apportioned General Sales Tax Revenue to Business, 4 Different Methods

Table B-3. Total Taxes Paid by Business, No General Sales Tax, 4 Different Apportionment Methods of Sales Tax

Table B-4. All Taxes Paid by Business as a Share of Personal Income, 2004

20. Cline, Robert, John Mikesell, Tom Neubig, and Andrew Phillips. "Sales Taxation of Business Inputs," Council on State Taxation, January 2005.

Table B-5.All Taxes Paid by Business as a Share of Private Gross State Product,
2004

Table B-6.All Taxes Paid by Business as a Share of Business Profits Earned within
Each State, 2004

Table B-1. Four Different Estimates of Business' Share of General Sales Tax Revenue

	Business Share, CES Method (2002)	Business Share, Exemption Method (2002)	Business Share, E&Y (2003)	Business Share, Ring (1989)
Alabama	31.1%	29.5%	36.0%	27%
Alaska	na	na	na	na
Arizona	37.5%	29.8%	47.0%	50%
Arkansas	36.4%	17.5%	32.5%	40%
California	29.5%	32.4%	45.1%	47%
Colorado	36.8%	37.6%	49.4%	40%
Connecticut	40.2%	44.6%	49.5%	42%
Delaware	na	na	na	na
District of Columbia	40.4%	39.1%	40.0%	56%
Florida	40.7%	40.9%	33.9%	50%
Georgia	37.4%	23.9%	43.5%	36%
Hawaii	47.6%	20.9%	32.2%	72%
Idaho	34.5%	27.7%	28.1%	38%
Illinois	24.6%	31.4%	41.8%	32%
Indiana	33.2%	23.6%	32.5%	46%
Iowa	34.0%	29.3%	39.1%	41%
Kansas	36.4%	28.4%	43.8%	33%
Kentucky	34.5%	42.5%	45.8%	46%
Louisiana	37.2%	24.0%	66.8%	49%
Maine	38.5%	42.4%	37.1%	43%
Maryland	29.5%	36.9%	41.0%	40%
Massachusetts	33.2%	37.9%	40.1%	38%
Michigan	33.6%	23.2%	32.1%	42%
Minnesota	34.8%	43.7%	43.8%	44%
Mississippi	38.1%	30.4%	37.5%	34%
Missouri	35.1%	36.6%	44.9%	36%
Montana	na	na	na	na
Nebraska	34.5%	29.1%	51.4%	40%
Nevada	39.7%	38.7%	41.1%	56%
New Hampshire	na	na	na	na
New Jersey	36.4%	44.0%	39.2%	38%
New Mexico	36.7%	17.6%	55.3%	50%
New York	34.6%	35.9%	50.3%	34%
North Carolina	30.7%	29.6%	40.1%	38%
North Dakota	35.1%	41.6%	43.2%	40%
Ohio	35.3%	39.8%	43.0%	34%
Oklahoma	31.3%	29.6%	51.8%	34%
Oregon	na	na	na	na
Pennsylvania	36.3%	49.5%	39.0%	36%
Rhode Island	35.1%	48.1%	49.2%	41%
South Carolina	34.2%	29.0%	32.8%	39%
South Dakota	38.3%	12.1%	51.7%	39%
Tennessee	37.7%	29.2%	34.8%	37%
Texas	37.3%	40.1%	47.7%	47%
Utah	37.8%	26.2%	34.4%	37%
Vermont	21.4%	40.7%	39.5%	44%
Virginia	21.9%	27.2%	34.9%	30%
Washington	43.4%	38.0%	57.7%	51%
West Virginia	29.8%	30.5%	28.4%	11%
Wisconsin	37.9%	39.0%	39.7%	38%
Wyoming	41.7%	17.4%	53.6%	46%
U.S.	35.3%	32.8%	42.2%	40.9%

Source: Anderson Economic Group, LLC; COST (2005) "Sales Taxation of Business Inputs"; Raymond Ring (1999) "Consumer's Share and Producer's Share of the General Sales Tax."

Table B-2. Apportioned General Sales Tax Revenue to Business, 4 Different Methods

(amounts in thousands)

	Total General Sales Tax Revenue (Census, 2004)	Sales Tax Revenue, CES Business Share (AEG)	Sales Tax Revenue, Exemption Business Share (AEG)	Sales Tax Revenue, E&Y Business Share	Sales Tax Revenue, Ring Business Share
Alabama	\$ 3,211,478	\$ 997,169	\$ 947,841	\$ 1,156,132	\$ 867,099
Alaska	148,479	-	-	-	-
Arizona	6,376,412	2,391,797	1,898,305	2,996,914	3,188,206
Arkansas	2,831,598	1,029,609	495,457	920,269	1,132,639
California	34,283,279	10,118,272	11,101,792	15,461,759	16,113,141
Colorado	4,165,468	1,531,458	1,568,010	2,057,741	1,666,187
Connecticut	3,127,221	1,256,118	1,394,507	1,547,974	1,313,433
Delaware	-	-	-	-	-
District of Columbia	725,834	293,114	284,161	290,334	406,467
Florida	17,996,616	7,320,490	7,356,178	6,100,853	8,998,308
Georgia	7,100,684	2,654,490	1,694,465	3,088,798	2,556,246
Hawaii	1,900,377	904,237	397,115	611,921	1,368,271
Idaho	1,036,924	358,197	286,737	291,376	394,031
Illinois	7,901,571	1,947,158	2,478,214	3,302,857	2,528,503
Indiana	4,759,445	1,579,246	1,120,868	1,546,820	2,189,345
Iowa	2,035,321	691,393	596,534	795,811	834,482
Kansas	2,482,686	904,871	705,991	1,087,416	819,286
Kentucky	2,477,717	854,606	1,052,749	1,134,794	1,139,750
Louisiana	5,329,806	1,983,387	1,280,165	3,560,310	2,611,605
Maine	917,248	353,011	388,924	340,299	394,417
Maryland	2,707,140	799,050	998,297	1,109,927	1,082,856
Massachusetts	3,743,204	1,244,253	1,418,885	1,501,025	1,422,418
Michigan	7,894,458	2,652,774	1,831,872	2,534,121	3,315,672
Minnesota	4,130,006	1,436,091	1,804,673	1,808,943	1,817,203
Mississippi	2,483,739	946,909	754,164	931,402	844,471
Missouri	4,648,191	1,631,837	1,699,030	2,087,038	1,673,349
Montana	-	-	-	-	-
Nebraska	1,760,207	607,651	512,904	904,746	704,083
Nevada	2,467,712	979,948	954,020	1,014,230	1,381,919
New Hampshire	-	-	-	-	-
New Jersey	6,261,700	2,280,148	2,757,572	2,454,586	2,379,446
New Mexico	1,955,334	716,665	344,441	1,081,300	977,667
New York	19,370,404	6,698,414	6,949,764	9,743,313	6,585,937
North Carolina	5,879,211	1,802,579	1,738,778	2,357,564	2,234,100
North Dakota	430,807	151,339	179,366	186,109	172,323
Ohio	9,257,515	3,267,517	3,680,634	3,980,731	3,147,555
Oklahoma	2,782,381	871,404	823,519	1,441,273	946,010
Oregon	-	-	-	-	-
Pennsylvania	7,960,439	2,891,697	3,942,363	3,104,571	2,865,758
Rhode Island	804,647	282,711	386,978	395,886	329,905
South Carolina	2,842,800	972,900	825,368	932,438	1,108,692
South Dakota	787,264	301,660	95,039	407,015	307,033
Tennessee	7,078,574	2,670,987	2,064,365	2,463,344	2,619,072
Texas	19,152,304	7,143,160	7,682,004	9,135,649	9,001,583
Utah	1,994,034	754,134	521,983	685,948	737,793
Vermont	259,192	55,485	105,397	102,381	114,044
Virginia	3,877,631	847,909	1,053,644	1,353,293	1,163,289
Washington	9,788,266	4,246,714	3,721,674	5,647,829	4,992,016
West Virginia	1,021,365	304,645	312,022	290,068	112,350
Wisconsin	4,139,085	1,570,322	1,615,082	1,643,217	1,572,852
Wyoming	605,560	252,496	105,244	324,580	278,558
U.S.	\$ 244,891,334	\$ 86,350,193	\$ 80,222,379	\$ 103,402,704	\$ 100,192,498

Source: Anderson Economic Group, LLC

Table B-3. Total Taxes Paid by Business, No General Sales Tax, 4 Different Apportionment Methods of Sales Tax

(amounts in thousands)

	Business Taxes, No General Sales Tax (AEG)	Business Taxes, CES Business Share (AEG)	Business Taxes, Exemption Business Share (AEG)	Business Taxes, E&Y Business Share	Business Taxes, Ring Business Share
Alabama	\$ 3,319,269	\$ 4,316,439	\$ 4,267,110	\$ 4,475,401	\$ 4,186,368
Alaska	1,365,695	1,365,695	1,365,695	1,365,695	1,365,695
Arizona	5,144,604	7,536,401	7,042,909	8,141,517	8,332,810
Arkansas	1,824,942	2,854,551	2,320,399	2,745,212	2,957,581
California	46,182,152	56,300,423	57,283,944	61,643,911	62,295,293
Colorado	5,009,615	6,541,073	6,577,624	7,067,356	6,675,802
Connecticut	6,179,675	7,435,793	7,574,183	7,727,650	7,493,108
Delaware	1,576,691	1,576,691	1,576,691	1,576,691	1,576,691
District of Columbia	1,627,767	1,920,881	1,911,927	1,918,100	2,034,234
Florida	19,870,922	27,191,412	27,227,100	25,971,775	28,869,230
Georgia	8,278,568	10,933,058	9,973,033	11,367,366	10,834,815
Hawaii	1,317,157	2,221,395	1,714,272	1,929,079	2,685,429
Idaho	1,346,607	1,704,804	1,633,345	1,637,983	1,740,638
Illinois	18,919,178	20,866,336	21,397,391	22,222,034	21,447,680
Indiana	6,924,611	8,503,856	8,045,479	8,471,430	9,113,955
Iowa	3,496,055	4,187,448	4,092,589	4,291,866	4,330,537
Kansas	3,487,366	4,392,237	4,193,357	4,574,782	4,306,652
Kentucky	3,649,003	4,503,609	4,701,752	4,783,797	4,788,752
Louisiana	3,873,040	5,856,427	5,153,205	7,433,351	6,484,645
Maine	2,092,358	2,445,369	2,481,282	2,432,657	2,486,774
Maryland	6,182,466	6,981,516	7,180,763	7,292,394	7,265,322
Massachusetts	10,155,094	11,399,347	11,573,978	11,656,118	11,577,511
Michigan	12,307,454	14,960,228	14,139,327	14,841,575	15,623,127
Minnesota	6,170,153	7,606,244	7,974,825	7,979,095	7,987,355
Mississippi	2,637,680	3,584,588	3,391,843	3,569,082	3,482,151
Missouri	5,047,767	6,679,604	6,746,797	7,134,805	6,721,116
Montana	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000
Nebraska	2,065,726	2,673,377	2,578,630	2,970,472	2,769,808
Nevada	3,133,004	4,112,952	4,087,023	4,147,234	4,514,923
New Hampshire	2,424,142	2,424,142	2,424,142	2,424,142	2,424,142
New Jersey	15,661,237	17,941,385	18,418,809	18,115,823	18,040,683
New Mexico	1,215,306	1,931,971	1,559,747	2,296,606	2,192,973
New York	36,307,510	43,005,924	43,257,274	46,050,823	42,893,448
North Carolina	8,263,384	10,065,962	10,002,162	10,620,948	10,497,484
North Dakota	792,489	943,828	971,855	978,598	964,812
Ohio	11,788,322	15,055,839	15,468,956	15,769,054	14,935,877
Oklahoma	2,729,495	3,600,899	3,553,014	4,170,769	3,675,505
Oregon	4,264,812	4,264,812	4,264,812	4,264,812	4,264,812
Pennsylvania	14,901,704	17,793,401	18,844,067	18,006,275	17,767,462
Rhode Island	1,620,423	1,903,134	2,007,401	2,016,309	1,950,328
South Carolina	4,368,974	5,341,873	5,194,341	5,301,412	5,477,666
South Dakota	739,744	1,041,404	834,782	1,146,759	1,046,777
Tennessee	4,904,927	7,575,914	6,969,292	7,368,271	7,523,999
Texas	29,607,058	36,750,218	37,289,061	38,742,707	38,608,640
Utah	2,003,944	2,758,078	2,525,927	2,689,892	2,741,737
Vermont	1,024,693	1,080,179	1,130,090	1,127,074	1,138,738
Virginia	8,386,876	9,234,785	9,440,520	9,740,170	9,550,166
Washington	7,044,737	11,291,451	10,766,411	12,692,566	12,036,753
West Virginia	1,810,986	2,115,630	2,123,008	2,101,053	1,923,336
Wisconsin	6,779,152	8,349,474	8,394,234	8,422,369	8,352,005
Wyoming	761,566	1,014,061	866,809	1,086,146	1,040,123
U.S.	\$ 361,867,098	\$ 447,417,116	\$ 445,794,191	\$ 467,782,004	\$ 464,276,468

Source: Anderson Economic Group, LLC

Table B-4. All Taxes Paid By Businesses as a Share of Personal Income, 2004 (No Sales Tax, 4 Different Apportionment Methods)

	Business Taxes-No Gen. Sales Tax/ Pers. Income	Business Taxes-CES/ Pers. Income	Business Taxes-Exemption/ Pers. Income	Business Taxes-E&Y/ Pers. Income	Business Taxes-Ring/ Pers. Income
Alabama	2.69%	3.50%	3.46%	3.63%	3.40%
Alaska	5.48%	5.48%	5.48%	5.48%	5.48%
Arizona	3.12%	4.62%	4.31%	5.00%	5.12%
Arkansas	2.73%	4.19%	3.43%	4.04%	4.34%
California	3.65%	4.45%	4.53%	4.88%	4.93%
Colorado	2.96%	3.95%	3.97%	4.29%	4.04%
Connecticut	3.64%	4.48%	4.57%	4.67%	4.51%
Delaware	5.59%	5.59%	5.59%	5.59%	5.59%
District of Columbia	5.69%	6.57%	6.54%	6.56%	6.91%
Florida	3.49%	4.73%	4.73%	4.52%	5.01%
Georgia	2.96%	4.10%	3.69%	4.29%	4.06%
Hawaii	3.23%	5.34%	4.15%	4.66%	6.42%
Idaho	3.67%	4.48%	4.32%	4.33%	4.56%
Illinois	4.12%	4.57%	4.69%	4.88%	4.70%
Indiana	3.84%	4.57%	4.36%	4.55%	4.85%
Iowa	3.94%	4.77%	4.66%	4.90%	4.94%
Kansas	3.56%	4.63%	4.39%	4.84%	4.53%
Kentucky	3.30%	4.06%	4.24%	4.32%	4.32%
Louisiana	3.32%	4.92%	4.35%	6.19%	5.42%
Maine	5.56%	6.45%	6.54%	6.42%	6.56%
Maryland	2.72%	3.12%	3.22%	3.28%	3.26%
Massachusetts	3.54%	4.03%	4.10%	4.13%	4.10%
Michigan	3.52%	4.38%	4.11%	4.34%	4.60%
Minnesota	3.61%	4.40%	4.60%	4.60%	4.60%
Mississippi	3.72%	5.12%	4.84%	5.10%	4.97%
Missouri	2.96%	3.88%	3.92%	4.14%	3.91%
Montana	4.90%	4.90%	4.90%	4.90%	4.90%
Nebraska	3.64%	4.52%	4.38%	4.95%	4.66%
Nevada	3.86%	5.18%	5.15%	5.23%	5.72%
New Hampshire	5.09%	5.09%	5.09%	5.09%	5.09%
New Jersey	4.18%	4.83%	4.96%	4.88%	4.85%
New Mexico	2.58%	4.02%	3.27%	4.75%	4.54%
New York	4.69%	5.54%	5.57%	5.93%	5.53%
North Carolina	3.20%	3.86%	3.83%	4.06%	4.01%
North Dakota	4.18%	5.01%	5.16%	5.20%	5.12%
Ohio	3.54%	4.35%	4.45%	4.53%	4.32%
Oklahoma	2.81%	3.71%	3.66%	4.30%	3.79%
Oregon	3.71%	3.71%	3.71%	3.71%	3.71%
Pennsylvania	3.22%	3.93%	4.19%	3.98%	3.92%
Rhode Island	4.29%	5.05%	5.34%	5.36%	5.18%
South Carolina	3.71%	4.51%	4.39%	4.48%	4.62%
South Dakota	3.50%	4.75%	3.90%	5.19%	4.78%
Tennessee	2.84%	4.22%	3.91%	4.11%	4.20%
Texas	4.29%	5.38%	5.46%	5.69%	5.67%
Utah	2.93%	4.21%	3.81%	4.09%	4.18%
Vermont	4.93%	5.19%	5.42%	5.40%	5.46%
Virginia	3.10%	3.43%	3.51%	3.62%	3.55%
Washington	3.15%	5.18%	4.93%	5.85%	5.54%
West Virginia	4.11%	4.78%	4.79%	4.74%	4.36%
Wisconsin	3.80%	4.71%	4.73%	4.75%	4.71%
Wyoming	5.08%	6.64%	5.73%	7.09%	6.80%
U.S.	3.76%	4.65%	4.53%	4.81%	4.79%

Source: Anderson Economic Group, LLC

Table B-5. All Taxes Paid By Businesses as a Share of Private Gross State Product, 2004 (No Sales Tax, 4 Different Apportionment Methods)

	Business Taxes-No Gen. Sales Tax/ Private GSP	Business Taxes-CES/ Private GSP	Business Taxes-Exemption/ Private GSP	Business Taxes-E&Y/ Private GSP	Business Taxes-Ring/ Private GSP
Alabama	2.94%	3.83%	3.78%	3.97%	3.71%
Alaska	4.76%	4.76%	4.76%	4.76%	4.76%
Arizona	2.96%	4.40%	4.10%	4.76%	4.87%
Arkansas	2.79%	4.28%	3.50%	4.12%	4.42%
California	3.47%	4.23%	4.30%	4.63%	4.68%
Colorado	2.84%	3.79%	3.81%	4.12%	3.87%
Connecticut	3.52%	4.33%	4.42%	4.52%	4.37%
Delaware	3.46%	3.46%	3.46%	3.46%	3.46%
District of Columbia	3.40%	3.92%	3.90%	3.92%	4.12%
Florida	3.77%	5.10%	5.10%	4.87%	5.40%
Georgia	2.70%	3.74%	3.36%	3.91%	3.70%
Hawaii	3.46%	5.73%	4.46%	5.00%	6.89%
Idaho	3.78%	4.62%	4.45%	4.46%	4.70%
Illinois	3.89%	4.32%	4.43%	4.61%	4.44%
Indiana	3.61%	4.30%	4.10%	4.28%	4.56%
Iowa	3.77%	4.56%	4.45%	4.68%	4.72%
Kansas	3.61%	4.69%	4.45%	4.90%	4.58%
Kentucky	3.28%	4.04%	4.22%	4.29%	4.29%
Louisiana	3.21%	4.75%	4.20%	5.98%	5.24%
Maine	5.98%	6.94%	7.03%	6.90%	7.05%
Maryland	3.23%	3.70%	3.82%	3.89%	3.87%
Massachusetts	3.38%	3.85%	3.91%	3.94%	3.91%
Michigan	3.44%	4.28%	4.02%	4.24%	4.49%
Minnesota	3.38%	4.12%	4.31%	4.31%	4.31%
Mississippi	4.20%	5.77%	5.45%	5.74%	5.60%
Missouri	2.88%	3.78%	3.82%	4.03%	3.80%
Montana	5.60%	5.60%	5.60%	5.60%	5.60%
Nebraska	3.56%	4.42%	4.28%	4.84%	4.56%
Nevada	3.48%	4.67%	4.63%	4.71%	5.15%
New Hampshire	5.27%	5.27%	5.27%	5.27%	5.27%
New Jersey	4.14%	4.78%	4.91%	4.83%	4.81%
New Mexico	2.72%	4.23%	3.45%	5.01%	4.79%
New York	4.43%	5.23%	5.26%	5.59%	5.22%
North Carolina	2.77%	3.34%	3.32%	3.51%	3.47%
North Dakota	4.16%	4.98%	5.13%	5.17%	5.10%
Ohio	3.43%	4.22%	4.32%	4.39%	4.19%
Oklahoma	3.21%	4.25%	4.19%	4.92%	4.34%
Oregon	3.79%	3.79%	3.79%	3.79%	3.79%
Pennsylvania	3.20%	3.91%	4.17%	3.97%	3.91%
Rhode Island	4.44%	5.23%	5.53%	5.55%	5.37%
South Carolina	3.74%	4.55%	4.42%	4.51%	4.66%
South Dakota	3.20%	4.34%	3.56%	4.74%	4.36%
Tennessee	2.67%	3.98%	3.68%	3.88%	3.95%
Texas	3.93%	4.93%	5.00%	5.20%	5.19%
Utah	2.70%	3.89%	3.52%	3.78%	3.86%
Vermont	5.28%	5.55%	5.80%	5.78%	5.84%
Virginia	3.12%	3.45%	3.53%	3.65%	3.58%
Washington	3.10%	5.09%	4.85%	5.75%	5.44%
West Virginia	4.74%	5.50%	5.52%	5.46%	5.02%
Wisconsin	3.68%	4.56%	4.58%	4.60%	4.56%
Wyoming	4.53%	5.92%	5.11%	6.32%	6.07%
U.S.	3.66%	4.53%	4.41%	4.69%	4.66%

Source: Anderson Economic Group, LLC

Table B-6. All Taxes Paid By Businesses as a Share of Business Profits Earned within Each State, 2004 (No Sales Tax, 4 Different Apportionment Methods)

	Business Taxes-No Gen. Sales	Business Taxes-Exemption/			
	Tax/ Profits	Business Taxes-CES/ Profits	Profits	Business Taxes-E&Y/ Profits	Business Taxes-Ring/ Profits
Alabama	23.22%	30.21%	29.86%	31.32%	29.30%
Alaska	43.19%	43.19%	43.19%	43.19%	43.19%
Arizona	27.41%	40.64%	37.91%	43.99%	45.05%
Arkansas	23.50%	36.07%	29.55%	34.73%	37.33%
California	27.33%	33.35%	33.94%	36.54%	36.92%
Colorado	22.62%	30.20%	30.38%	32.80%	30.87%
Connecticut	20.47%	25.14%	25.66%	26.23%	25.35%
Delaware	17.93%	17.93%	17.93%	17.93%	17.93%
District of Columbia	31.19%	35.98%	35.83%	35.93%	37.83%
Florida	30.09%	40.72%	40.77%	38.95%	43.16%
Georgia	21.78%	30.20%	27.15%	31.58%	29.89%
Hawaii	31.24%	51.65%	40.20%	45.05%	62.12%
Idaho	32.71%	39.96%	38.51%	38.60%	40.68%
Illinois	26.66%	29.56%	30.36%	31.58%	30.43%
Indiana	27.96%	33.28%	31.74%	33.17%	35.34%
Iowa	28.57%	34.60%	33.77%	35.51%	35.84%
Kansas	30.28%	39.32%	37.33%	41.14%	38.46%
Kentucky	26.42%	32.57%	34.00%	34.59%	34.62%
Louisiana	26.21%	38.82%	34.35%	48.84%	42.81%
Maine	47.14%	54.72%	55.50%	54.45%	55.61%
Maryland	23.92%	27.42%	28.30%	28.79%	28.67%
Massachusetts	22.15%	25.23%	25.66%	25.86%	25.67%
Michigan	25.71%	32.01%	30.06%	31.72%	33.58%
Minnesota	21.83%	26.60%	27.82%	27.83%	27.86%
Mississippi	36.87%	50.68%	47.87%	50.46%	49.19%
Missouri	21.09%	27.69%	27.96%	29.53%	27.86%
Montana	50.46%	50.46%	50.46%	50.46%	50.46%
Nebraska	26.62%	33.07%	32.06%	36.22%	34.09%
Nevada	28.62%	38.41%	38.15%	38.75%	42.43%
New Hampshire	39.59%	39.59%	39.59%	39.59%	39.59%
New Jersey	30.09%	34.76%	35.74%	35.12%	34.96%
New Mexico	23.41%	36.47%	29.69%	43.12%	41.23%
New York	24.56%	29.00%	29.17%	31.02%	28.93%
North Carolina	20.43%	24.64%	24.49%	25.93%	25.65%
North Dakota	35.35%	42.35%	43.64%	43.96%	43.32%
Ohio	24.58%	30.24%	30.95%	31.47%	30.03%
Oklahoma	25.72%	33.99%	33.54%	39.41%	34.70%
Oregon	29.58%	29.58%	29.58%	29.58%	29.58%
Pennsylvania	23.67%	28.92%	30.83%	29.31%	28.87%
Rhode Island	30.96%	36.47%	38.51%	38.68%	37.40%
South Carolina	30.13%	36.64%	35.65%	36.37%	37.55%
South Dakota	23.20%	31.47%	25.80%	34.36%	31.62%
Tennessee	21.16%	31.48%	29.14%	30.68%	31.28%
Texas	31.55%	39.57%	40.18%	41.81%	41.66%
Utah	20.73%	29.81%	27.01%	28.99%	29.61%
Vermont	43.31%	45.55%	47.56%	47.44%	47.91%
Virginia	23.62%	26.10%	26.71%	27.58%	27.03%
Washington	27.35%	44.96%	42.78%	50.77%	48.05%
West Virginia	40.13%	46.60%	46.76%	46.29%	42.52%
Wisconsin	27.05%	33.52%	33.71%	33.83%	33.54%
Wyoming	39.97%	52.28%	45.10%	55.80%	53.55%
U.S.	28.61%	35.56%	34.56%	36.80%	36.69%

Source: Anderson Economic Group, LLC

Appendix C: Key Business Tax Burdens

METHODOLOGY: KEY BUSINESS TAXES

We have identified four categories of taxes as “key” business taxes because these taxes represent the largest taxes that businesses pay, they are salient to business, they are levied on business activities, and the initial incidence of these taxes falls on business.

In order to construct our key business tax burden measures, we used the apportioned corporate income, property, license, and individual income taxes that we used in our “all taxes” paid by businesses measures. For details on how we apportioned these taxes, please see “Appendix A: Methodology & Data for Tax Measures” on page 1 of that appendix.

DATA

- c-1.** Key Taxes as a Share of All Business Taxes, 2004
- c-2.** Key Taxes Paid by Businesses as a Share of State Personal Income, 2004
- c-3.** Key Taxes as a Share of Private Gross State Product, 2004
- c-4.** Key Taxes as a Share of Business Profits, 2004
- c-5.** Corporate Income and License Taxes Paid by Businesses as a Share of Business Profits, 2004
- c-6.** Corporate Income and Property Taxes Paid by Businesses as a Share of Personal Income, 2004
- c-7.** Corporate Income and Property Taxes Paid by Businesses as a Share of Private Gross State Product, 2004
- c-8.** Corporate Income and Property Taxes Paid by Businesses as a Share of State Business Profits, 2004

Table C-1. Key Taxes as a Share of All Business Taxes, 2004

	All Taxes Paid by Businesses	Key Taxes*	Key Taxes as a Share of All Taxes
Alabama	\$ 3,319,269	\$ 1,981,952	59.7%
Alaska	1,365,695	998,983	73.1%
Arizona	5,144,604	4,344,891	84.5%
Arkansas	1,824,942	1,218,532	66.8%
California	46,182,152	36,058,747	78.1%
Colorado	5,009,615	4,094,878	81.7%
Connecticut	6,179,675	4,769,115	77.2%
Delaware	1,576,691	1,349,766	85.6%
District of Columbia	1,627,767	1,194,506	73.4%
Florida	19,870,922	13,573,445	68.3%
Georgia	8,278,568	6,753,313	81.6%
Hawaii	1,317,157	781,446	59.3%
Idaho	1,346,607	1,075,515	79.9%
Illinois	18,919,178	13,073,702	69.1%
Indiana	6,924,611	5,574,986	80.5%
Iowa	3,496,055	2,775,984	79.4%
Kansas	3,487,366	2,755,393	79.0%
Kentucky	3,649,003	2,381,318	65.3%
Louisiana	3,873,040	2,701,579	69.8%
Maine	2,092,358	1,874,471	89.6%
Maryland	6,182,466	4,417,246	71.4%
Massachusetts	10,155,094	8,117,797	79.9%
Michigan	12,307,454	9,819,909	79.8%
Minnesota	6,170,153	4,490,897	72.8%
Mississippi	2,637,680	2,057,461	78.0%
Missouri	5,047,767	3,657,861	72.5%
Montana	1,281,000	1,025,796	80.1%
Nebraska	2,065,726	1,676,068	81.1%
Nevada	3,133,004	1,902,052	60.7%
New Hampshire	2,424,142	2,054,582	84.8%
New Jersey	15,661,237	12,292,858	78.5%
New Mexico	1,215,306	799,823	65.8%
New York	36,307,510	29,331,908	80.8%
North Carolina	8,263,384	5,980,676	72.4%
North Dakota	792,489	573,636	72.4%
Ohio	11,788,322	9,783,829	83.0%
Oklahoma	2,729,495	2,059,312	75.4%
Oregon	4,264,812	2,992,221	70.2%
Pennsylvania	14,901,704	10,265,135	68.9%
Rhode Island	1,620,423	1,244,557	76.8%
South Carolina	4,368,974	3,594,973	82.3%
South Dakota	739,744	612,801	82.8%
Tennessee	4,904,927	3,741,807	76.3%
Texas	29,607,058	21,075,945	71.2%
Utah	2,003,944	1,494,957	74.6%
Vermont	1,024,693	798,061	77.9%
Virginia	8,386,876	6,232,082	74.3%
Washington	7,044,737	3,846,349	54.6%
West Virginia	1,810,986	1,134,919	62.7%
Wisconsin	6,779,152	5,420,682	80.0%
Wyoming	761,566	653,407	85.8%
<i>Memo: U.S.</i>	\$ 361,867,098	\$ 272,482,131	75.3%

* Key Taxes include apportioned property, corporate income, license, and individual income taxes.

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

Table C-2. Key Taxes Paid By Businesses as a Share of State Personal Income, 2004

Rank	State	Key Taxes Paid by Businesses as a % of State Personal Income
1	Alabama	1.58%
2	New Mexico	1.61%
3	Arkansas	1.72%
4	Washington	1.77%
5	Hawaii	1.90%
6	Maryland	2.01%
7	Missouri	2.08%
8	Oklahoma	2.10%
9	Kentucky	2.12%
10	Tennessee	2.13%
11	Louisiana	2.20%
12	Virginia	2.31%
13	Utah	2.32%
14	North Carolina	2.39%
15	Nevada	2.41%
16	Minnesota	2.43%
17	West Virginia	2.43%
18	Colorado	2.46%
19	Florida	2.48%
20	Pennsylvania	2.49%
21	Georgia	2.54%
22	South Dakota	2.60%
23	Arizona	2.64%
24	Oregon	2.72%
25	Ohio	2.74%
26	California	2.86%
27	Idaho	2.88%
28	Mississippi	2.91%
29	Illinois	2.96%
30	Nebraska	2.97%
31	Indiana	2.97%
32	Connecticut	2.99%
33	Massachusetts	3.00%
34	Michigan	3.03%
35	Iowa	3.03%
36	Texas	3.05%
37	Wisconsin	3.07%
38	North Dakota	3.09%
39	South Carolina	3.15%
40	Kansas	3.25%
41	Rhode Island	3.37%
42	New Jersey	3.39%
43	Wyoming	3.77%
44	New York	3.98%
45	Montana	4.00%
46	Vermont	4.05%
47	District of Columbia	4.14%
48	New Hampshire	4.31%
49	Alaska	4.47%
50	Delaware	4.57%
51	Maine	4.75%

Memo: U.S. 2.8%

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

Table C-3. Key Taxes as a Share of Private Gross State Product, 2004

Rank	State	Key Taxes Paid by Businesses as a % of Private	
		GSP	
1	New Mexico	1.64%	
2	Alabama	1.69%	
3	Washington	1.71%	
4	Arkansas	1.73%	
5	Tennessee	1.96%	
6	Hawaii	2.01%	
7	Louisiana	2.03%	
8	Missouri	2.04%	
9	North Carolina	2.04%	
10	Kentucky	2.05%	
11	Nevada	2.10%	
12	Utah	2.11%	
13	Minnesota	2.23%	
14	Georgia	2.26%	
15	Virginia	2.29%	
16	Oklahoma	2.30%	
17	Maryland	2.33%	
18	Colorado	2.33%	
19	South Dakota	2.39%	
20	District of Columbia	2.41%	
21	Pennsylvania	2.43%	
22	Arizona	2.48%	
23	Florida	2.57%	
24	California	2.61%	
25	Ohio	2.62%	
26	Oregon	2.68%	
27	Texas	2.69%	
28	Indiana	2.71%	
29	Delaware	2.71%	
30	Illinois	2.74%	
31	West Virginia	2.76%	
32	Massachusetts	2.79%	
33	Connecticut	2.81%	
34	Iowa	2.82%	
35	Idaho	2.87%	
36	Wisconsin	2.87%	
37	Nebraska	2.88%	
38	Michigan	2.95%	
39	North Dakota	3.01%	
40	South Carolina	3.13%	
41	Wyoming	3.17%	
42	Kansas	3.24%	
43	Mississippi	3.27%	
44	New Jersey	3.29%	
45	Rhode Island	3.39%	
46	New York	3.64%	
47	Alaska	3.65%	
48	Vermont	4.19%	
49	New Hampshire	4.36%	
50	Montana	4.46%	
51	Maine	5.04%	

Memo: U.S. 2.7%

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

Table C-4. Key Taxes as a Share of Business Profits, 2004

Rank	State	Key Taxes Paid by Businesses as a % of Business Profits Earned within the State	
1	Alabama		14.25%
2	New Mexico		14.88%
3	Delaware		14.90%
4	Minnesota		15.34%
5	Missouri		15.48%
6	Arkansas		15.52%
7	Washington		15.66%
8	North Carolina		15.81%
9	Tennessee		16.57%
10	Louisiana		16.93%
11	Connecticut		16.95%
12	Kentucky		17.08%
13	Utah		17.20%
14	Virginia		18.81%
15	Pennsylvania		18.86%
16	Oklahoma		18.95%
17	South Dakota		19.00%
18	Georgia		19.29%
19	Maryland		19.32%
20	Ohio		19.39%
21	Massachusetts		19.47%
22	Colorado		19.50%
23	Illinois		19.62%
24	Nevada		20.68%
25	Hawaii		21.17%
26	New York		21.19%
27	Indiana		21.93%
28	Wisconsin		22.02%
29	Iowa		22.25%
30	California		22.37%
31	Michigan		22.62%
32	Oregon		22.63%
33	Texas		22.63%
34	Nebraska		22.82%
35	Florida		23.21%
36	West Virginia		23.42%
37	Rhode Island		25.09%
38	New Jersey		25.45%
39	Arizona		25.55%
40	District of Columbia		25.85%
41	Wyoming		26.47%
42	South Carolina		27.06%
43	North Dakota		27.29%
44	Kansas		27.54%
45	Idaho		27.72%
46	Mississippi		30.40%
47	Alaska		31.79%
48	New Hampshire		36.01%
49	Vermont		37.14%
50	Maine		43.13%
51	Montana		44.19%

Memo: U.S. 20.9%

Source: AEG Estimate

Analysis: Anderson Economic Group, LLC

Table C-5. Corporate Income and License Taxes Paid by Businesses as a Share of Business Profits, 2004

Rank	State	Corporate Income and License Taxes as a % of Business Profits Earned within the State
1	Washington	1.37%
2	Colorado	1.72%
3	Connecticut	1.97%
4	Georgia	2.14%
5	Virginia	2.25%
6	Missouri	2.30%
7	Rhode Island	2.30%
8	Utah	2.41%
9	Wyoming	2.56%
10	Iowa	2.92%
11	Kansas	3.01%
12	South Carolina	3.22%
13	Indiana	3.23%
14	Texas	3.32%
15	Arkansas	3.33%
16	Louisiana	3.49%
17	Maryland	3.55%
18	Florida	3.64%
19	Massachusetts	3.65%
20	Minnesota	3.67%
21	District of Columbia	3.69%
22	North Carolina	3.77%
23	Arizona	3.77%
24	Illinois	3.81%
25	New Mexico	3.82%
26	Alabama	3.84%
27	Nebraska	3.89%
28	Hawaii	4.09%
29	South Dakota	4.14%
30	New York	4.14%
31	Ohio	4.42%
32	Maine	4.46%
33	Vermont	4.56%
34	Oregon	4.64%
35	Wisconsin	4.73%
36	Michigan*	5.17%
37	Kentucky	5.31%
38	Nevada	5.43%
39	Oklahoma	5.50%
40	West Virginia	5.53%
41	Idaho	5.57%
42	New Jersey	5.64%
43	North Dakota	5.87%
44	Pennsylvania	6.41%
45	Mississippi	6.54%
46	California	6.61%
47	Tennessee	6.70%
48	Montana	7.07%
49	New Hampshire	8.74%
50	Delaware	11.23%
51	Alaska	11.91%

Memo: United States 4.4%

* The SBT is recorded as a corporate income tax in the Census data that we used for this analysis.

Source: AEG Estimate

Analysis: Anderson Economic Group, LLC

Table C-6. Corporate Income and Property Taxes Paid by Businesses as a Share of Personal Income, 2004

Rank	State	Corporate Income and Property Taxes as a % of Personal Income
1	Alabama	1.18%
2	Oklahoma	1.19%
3	New Mexico	1.21%
4	Arkansas	1.29%
5	Hawaii	1.41%
6	Kentucky	1.55%
7	Delaware	1.58%
8	Washington	1.62%
9	Maryland	1.64%
10	Tennessee	1.65%
11	Missouri	1.68%
12	Louisiana	1.68%
13	Nevada	1.78%
14	Pennsylvania	1.85%
15	Utah	1.87%
16	North Carolina	1.88%
17	Minnesota	1.94%
18	Virginia	1.98%
19	West Virginia	2.04%
20	Oregon	2.05%
21	Colorado	2.06%
22	California	2.10%
23	Ohio	2.13%
24	Georgia	2.16%
25	Idaho	2.17%
26	South Dakota	2.23%
27	Florida	2.35%
28	Arizona	2.39%
29	North Dakota	2.40%
30	Nebraska	2.42%
31	Mississippi	2.44%
32	Iowa	2.46%
33	Illinois	2.52%
34	Wisconsin	2.57%
35	Connecticut	2.59%
36	Texas	2.61%
37	Massachusetts	2.64%
38	Michigan	2.71%
39	Indiana	2.71%
40	South Carolina	2.76%
41	Kansas	2.80%
42	New Jersey	2.94%
43	Rhode Island	3.02%
44	Montana	3.12%
45	Wyoming	3.41%
46	New York	3.48%
47	District of Columbia	3.54%
48	Vermont	3.61%
49	New Hampshire	4.11%
50	Maine	4.23%
51	Alaska	4.32%

Memo: U.S. 2.3%

* The SBT is recorded as a corporate income tax in the Census data that we used for this analysis.

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

Table C-7. Corporate Income and Property Taxes Paid by Businesses as a Share of Private Gross State Product, 2004

Rank	State	Corporate Income and Property Taxes as a % of Private Gross State	
			Product
1	Delaware		0.94%
2	New Mexico		1.23%
3	Alabama		1.26%
4	Arkansas		1.29%
5	Oklahoma		1.30%
6	Hawaii		1.49%
7	Kentucky		1.50%
8	Tennessee		1.52%
9	Nevada		1.55%
10	Louisiana		1.55%
11	Washington		1.56%
12	North Carolina		1.60%
13	Missouri		1.64%
14	Utah		1.70%
15	Minnesota		1.78%
16	Pennsylvania		1.80%
17	Maryland		1.91%
18	Georgia		1.92%
19	California		1.92%
20	Colorado		1.95%
21	Virginia		1.97%
22	Oregon		2.02%
23	Ohio		2.04%
24	South Dakota		2.05%
25	District of Columbia		2.06%
26	Idaho		2.17%
27	Arizona		2.24%
28	Iowa		2.29%
29	Texas		2.30%
30	West Virginia		2.32%
31	North Dakota		2.33%
32	Illinois		2.33%
33	Nebraska		2.35%
34	Wisconsin		2.40%
35	Connecticut		2.44%
36	Florida		2.44%
37	Massachusetts		2.45%
38	Indiana		2.47%
39	Michigan		2.63%
40	South Carolina		2.73%
41	Mississippi		2.74%
42	Kansas		2.79%
43	New Jersey		2.84%
44	Wyoming		2.86%
45	Rhode Island		3.04%
46	New York		3.19%
47	Montana		3.48%
48	Alaska		3.52%
49	Vermont		3.74%
50	New Hampshire		4.16%
51	Maine		4.49%

Memo: U.S. 2.2%

* The SBT is recorded as a corporate income tax in the Census data that we used for this analysis.

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

Table C-8. Corporate Income and Property Taxes Paid by Businesses as a Share of State Business Profits, 2004

Rank	State	Corporate Income and Property Taxes as a % of Business Profits
		Earned within the State
1	Delaware	5.16%
2	Alabama	10.64%
3	Oklahoma	10.69%
4	New Mexico	11.16%
5	Arkansas	11.63%
6	Minnesota	12.25%
7	North Carolina	12.41%
8	Missouri	12.45%
9	Kentucky	12.56%
10	Tennessee	12.89%
11	Louisiana	12.96%
12	Utah	13.84%
13	Pennsylvania	14.03%
14	Washington	14.29%
15	Connecticut	14.68%
16	Ohio	15.09%
17	Nevada	15.26%
18	Hawaii	15.70%
19	Maryland	15.83%
20	Virginia	16.16%
21	Colorado	16.31%
22	South Dakota	16.33%
23	Georgia	16.40%
24	California	16.49%
25	Illinois	16.72%
26	Oregon	17.06%
27	Massachusetts	17.10%
28	Iowa	18.05%
29	Wisconsin	18.42%
30	New York	18.54%
31	Nebraska	18.55%
32	Texas	19.32%
33	West Virginia	19.63%
34	Indiana	20.00%
35	Michigan	20.21%
36	Idaho	20.94%
37	North Dakota	21.16%
38	New Jersey	22.01%
39	Florida	22.04%
40	District of Columbia	22.07%
41	Rhode Island	22.51%
42	Arizona	23.08%
43	South Carolina	23.65%
44	Kansas	23.71%
45	Wyoming	23.91%
46	Mississippi	25.50%
47	Alaska	30.68%
48	Vermont	33.12%
49	New Hampshire	34.35%
50	Montana	34.49%
51	Maine	38.44%

Memo: U.S. 17.3%

* The SBT is recorded as a corporate income tax in the Census data that we used for this analysis.

Source: AEG Estimate

Analysis: Anderson Economic Group LLC

Table D-1: State of Michigan Tax Revenue, Detailed Categories (Census and Treasury Data), 2004

	Census State Gov't Amount	Treasury State Gov't Amount	Source Notes
Taxes			State education (property) + Telephone and telegraph company + Intangibles + industrial facilities + Low Grade Iron Ore + State Housing Dev. Fee + Commercial Forest + Trailer Coach Specific + Railroad Car Leasing
Property taxes	\$ 2,091,933	\$ 2,092,975	
Sales and gross receipts	10,844,250	10,739,818	General Sales + Selected Sales
General sales and gross receipts	7,894,458	7,790,026	Sales and Use
Selective sales taxes	2,949,792	2,949,792	Sum of selected taxes listed below
Alcoholic beverage	149,424	149,424	Beer/Wine + Liquor
Amusements	99,455	99,455	Casino gaming wagering
Insurance premiums	230,272	230,272	Insurance company
Motor fuels	1,081,259	1,081,259	Gasoline+Diesel+Aviation fuels
Pari-mutuels	11,825	11,825	Horse race wagering
Public utilities	28,561	28,561	Commercial mobile radio service
Tobacco products	992,793	992,793	Tobacco products + tobacco penalty and interest
Other selective sales	356,203	356,203	Airport parking + Convention hotel accomodation
Licenses	1,545,457	1,545,476	Sum of licenses listed below
Alcoholic beverages	13,079	13,079	Liquor licenses
Corporation	19,344	19,344	Corporation franchise fees
Hunting and fishing	48,304	48,304	Hunting, fishing
Motor vehicle	1,064,774	1,064,774	Motor vehicle registration (tax) + Motor vehicle related (license fee)
Motor vehicle operators	66,634	66,634	Motor vehicle operators
Public utility	15,389	15,389	Public utility assessment fees
Occupation and business, NEC	171,844	171,864	Examination fees-financial institutions, insurance industry + Concession and priviledge fees + Consumer and Industry Services permits + Auto repair facilites and mechanics licenses and fees + MUSTA+ Other
Other licenses	146,089	146,089	Other licenses
Other taxes	8,165,641	8,165,618	
Individual income	5,873,365	5,873,365	Personal Income - I subtracted out tax expenditures of \$615,100,000 and added in penalty income.
Corporation net income	1,841,010	1,841,010	Single business + single business tax penalty and interest
Death and gift	75,543	75,543	Estate and inheritance
Documentary and stock transfer	317,480	317,480	Real estate transfer
Severance	58,220	58,220	Gas and oil severance
Other	23	-	Other tax
Total Tax Revenue	\$ 22,647,281	\$ 22,543,888	

Data Sources:

U.S. Census, FY 03-04

Michigan Department of
Treasury, FY 2004

Table D-2: State of Michigan Tax Revenue, Detailed Categories (Census and Treasury Data), 2002

	Census State Gov't Amount	Treasury State Gov't Amount	Source Notes
Taxes			
Property taxes	\$ 1,890,783	\$ 1,890,784	State education (property) + Telephone and telegraph company + Intangibles + industrial facilities + Low Grade Iron Ore + State Housing Dev. Fee + Commercial Forest + Trailer Coach Specific + Railroad Car Loaning
Sales and gross receipts	10,069,290	10,069,290	General Sales + Selected Sales
General sales and gross receipts	7,784,308	7,784,308	Sales and Use
Selective sales taxes	2,284,982	2,284,982	Sum of selected taxes listed below
Alcoholic beverage	138,310	138,310	Beer/Wine + Liquor
Amusements	91,915	91,915	Casino gaming wagering
Insurance premiums	227,081	227,081	Insurance company
Motor fuels	1,089,813	1,089,813	Gasoline+Diesel+Aviation fuels
Pari-mutuels	12,481	12,481	Horse race wagering
Public utilities	25,005	25,005	Commercial mobile radio service
Tobacco products	670,022	670,022	Tobacco products + tobacco penalty and interest
Other selective sales	30,355	30,355	Airport parking + Convention hotel accomodation
Licenses	1,297,312	1,297,311	Sum of licenses listed below
Alcoholic beverages	12,208	12,208	Liquor licenses
Corporation	12,172	12,172	Corporation franchise fees
Hunting and fishing	49,047	49,047	Hunting, fishing
Motor vehicle	890,951	890,951	Motor vehicle registration (tax) + Motor vehicle related (license fee)
Motor vehicle operators	43,136	43,136	Motor vehicle operators
Public utility	17,403	17,403	Public utility assessment fees
Occupation and business, NEC	223,085	223,085	Examination fees-financial institutions, insurance industry + Concession and priviledge fees + Consumer and Industry Services permits + Auto repair facilites and mechanics licenses and fees + MUSTA+ Other
Other licenses	49,310	49,309	Other licenses
Other taxes	8,606,667	8,606,667	
Individual income	6,125,270	6,125,270	Personal Income - I subtracted out tax expenditures of \$615,100,000 and added in penalty income.
Corporation net income	2,065,241	2,065,241	Single business + single business tax penalty and interest
Death and gift	131,029	131,029	Estate and inheritance
Documentary and stock transfer	253,075	253,075	Real estate transfer
Severance	31,688	31,688	Gas and oil severance
Other	364	364	Other tax
Total Tax Revenue	\$ 21,864,052	\$ 21,864,052	
Unemployment Compensation	\$ 1,301,318	\$ 1,426,748	

Data Sources:

U.S. Census of
Governments, 01-02

Michigan Department of
Treasury, 01-02

Appendix E: Variation in Business Taxation in Michigan

VARIATION AMONG TAXPAYERS UNDER DIFFERENT TAXES

Tax regimes vary widely in their compliance with the principle of uniformity across different taxpayers. While no actual tax system achieves perfect uniformity, some tax regimes are much closer to achieving a practical uniformity than others. We examine below the relative uniformity of all taxes in Michigan, then review the variation in the SBT among businesses of different size, similar businesses using different calculation methods, and the SBT tax burdens by industry as a share of profits.

Relative Uniformity. Table 1 below summarizes our assessment of the relative uniformity of important taxes paid by businesses and individuals in Michigan.

TABLE 1. Relative Uniformity of Taxes in Michigan

Tax	Relative Uniformity	Notes; Causes of Non-Uniformity
Sales and Use Tax	Very High	Collected at a flat rate at retail. Low transaction costs. Transparent rate and amount. No variation in rate (due to no local sales taxes) in Michigan. Monthly collection for many retailers ensures base level of compliance. Causes of Non-Uniformity: Sales Tax: exemptions for food and drugs, although nearly uniformly applied. Technical issues on a handful of items (such as juices sold at vending machines). Double-taxation of a portion of capital assets such as cars and boats.
Income Tax	High	Use Tax: Lack of compliance on out-of-state purchases Collected at a flat rate as a portion of Federal AGI (Adjusted Gross Income), which is a very broad definition of income. High compliance with wage and salary, as well as dividend and interest, reporting requirements. Very low exemptions. Regular withholding ensures base level of compliance on wage and salary earnings. Causes of Non-Uniformity: Cost of living varies with family size and area, so exempt amounts do not adequately capture either variation or amount. No definition of “income” is perfect. Some lack of reporting of “informal” economy.

Source: Anderson Economic Group LLC

TABLE 1. Relative Uniformity of Taxes in Michigan

Tax	Relative Uniformity	Notes; Causes of Non-Uniformity
Real Property Tax	Medium High	<p>Well-established assessment and equalization system. High compliance and collection.</p> <p>Causes of Non-Uniformity:</p> <p>Since 1994, “taxable value” established in State Constitution allows non-uniformity among property owners in same community, and “homestead exemption” creates large tax preference for principal homeowners and farmers.</p> <p>Assessment system does not capture swings in individual parcel values, although (especially with rollbacks associated with 1978 “Headlee” amendment to the State Constitution) it does trend closely to overall tax base. Commercial property not assessed adequately. Appeal process often too difficult for taxpayers. Rates vary by municipality. Some failures to abide by Constitutional limitations and definitions of “special assessment” and “fees”. [See, e.g., <i>Headlee Blue Ribbon Commission Report</i>, 1994.]</p> <p>Property tax abatements are available on industrial property; largest taxpayers sometimes can receive MEGA credits.</p>
Personal Property Tax	Medium	<p>Collected using the same system as the Real Property Tax.</p> <p>Causes of Non-Uniformity:</p> <p>Assessing rules do not properly measure “true cash value,” but instead predict accounting depreciation. Much personal property over-assessed. Smaller taxpayers and home-based businesses often avoid tax entirely. Variations in local assessing practices. Tax evasion and avoidance easier for personal property than for real property.</p>
Single Business Tax	Low	<p>Original SBT was a broad-based consumption-type VAT, which was more uniform than the system of seven individual taxes it replaced.</p> <p>Causes of Non-Uniformity:</p> <p>Current SBT has special tax provisions for insurance companies; has at least five different methods of calculation; allows the majority of taxpayers to pay little or no tax; includes provisions that invite aggressive tax planning and tax sheltering activity; differential tax rates on investment based on size of taxpaying business; significant differences in tax paid as a share of tax base or business income. Some firms and industries benefit disproportionately from certain credits.</p>

Source: Anderson Economic Group LLC

**LACK OF UNIFORMITY
IN THE SBT**

As the table summarized, there are many provisions of the SBT that create non-uniformity.

Incidence by Size. Over one-quarter of filers pay no SBT, and 45% of filers pay less than \$5,000. Fewer than 200 firms are responsible for 27% of the total SBT revenue.¹

Multiple Calculation Methods. A cause of non-uniformity is the proliferation of calculation methods. We excerpt below from a previous AEG report a description of five different ways to calculate the SBT. Such variations, which are documented in *The SBT Burdens on Michigan Industries*, by Patrick Anderson and Ilhan Geckil (Michigan Manufacturers Association, 2005), allow taxpayers to make adjustments in their operations solely for tax planning purposes that result in significant changes in tax liabilities. The table below shows the variation using no adjustments in operations, and the results using only three of the five calculations available. Even under these restrictive assumptions, variations in tax of 10% to 30% occur. Allowing for aggressive tax planning and other methods, variations of 50% or more can occur.²

TABLE 2. Examples of SBT Variations: Liability Under Different Calculation Methods

Representative Firm and Industry	Size of Company	Tax Liability Under Most Advantageous Method	Tax Liability Under Least Advantageous Method
Construction Company	Small	\$5,683	\$6,800
Manufacturing Company	Small	\$12,267	\$14,541
Transportation Company	Small	\$6,099	\$7,091
Comm. & Ut. Company	Small	\$9,009	\$14,036
Wholesale Trade Company	Small	\$7,245	\$8,409
Retail Trade Company	Small	\$3,621	\$4,333

Source: Anderson and Geckil, 2005

1. Michigan Department of Treasury, "The Michigan Single Business Tax," August 2003. SBT data reported in this document is from 1999-2000.
2. The best known, though not the only, tax planning strategy is known as the "employee leasing" or "PEO" strategy. Under this strategy, a company is split into two tax-paying entities: an operating company, and an employee-leasing company. The operating company pays the employee leasing company an amount to cover the costs of employment of all its "employees" (which are now employees of the other entity). Using this method, the operating company can sometimes file under the "small business-low profit" method or use the "gross receipts reduction," while the employee-leasing company can use the "excess compensation" reduction. As a result, it is possible to reduce the SBT burden of the firm by 50% or more, and theoretically could result in a 100% reduction for certain small firms.

Note that this is a *legal* option under current law, and that employee-leasing firms also operate for business reasons other than tax planning.

TABLE 2. Examples of SBT Variations: Liability Under Different Calculation Methods

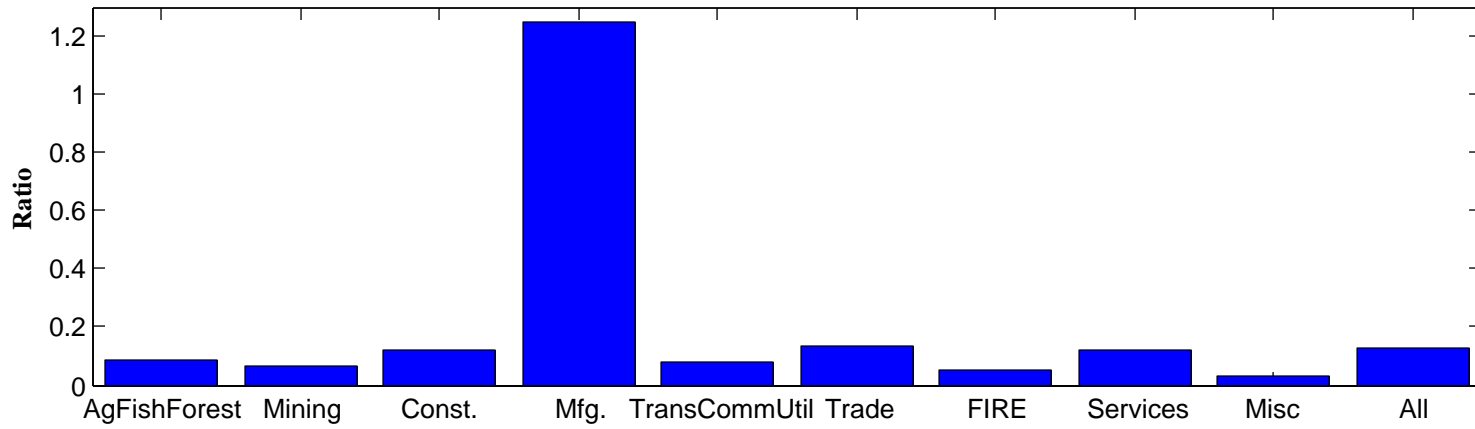
Representative Firm and Industry	Size of Company	Tax Liability Under Most Advantageous Method	Tax Liability Under Least Advantageous Method
Construction Company	Small	\$5,683	\$6,800
F.I.R.E. Company	Small	\$3,763	\$5,189
Service Company	Small	\$8,265	\$9,693
Construction Company	Large	\$124,530	\$155,170
Manufacturing Company	Large	\$284,241	\$367,972
Transportation Company	Large	\$222,914	\$246,798
Comm. & Ut. Company	Large	\$804,282	\$829,481
Wholesale Trade Company	Large	\$112,874	\$128,860
Retail Trade Company	Large	\$123,329	\$147,936
F.I.R.E. Company	Large	\$280,901	\$381,132
Service Company	Large	\$253,698	\$298,320

Source: Anderson and Geckil, 2005

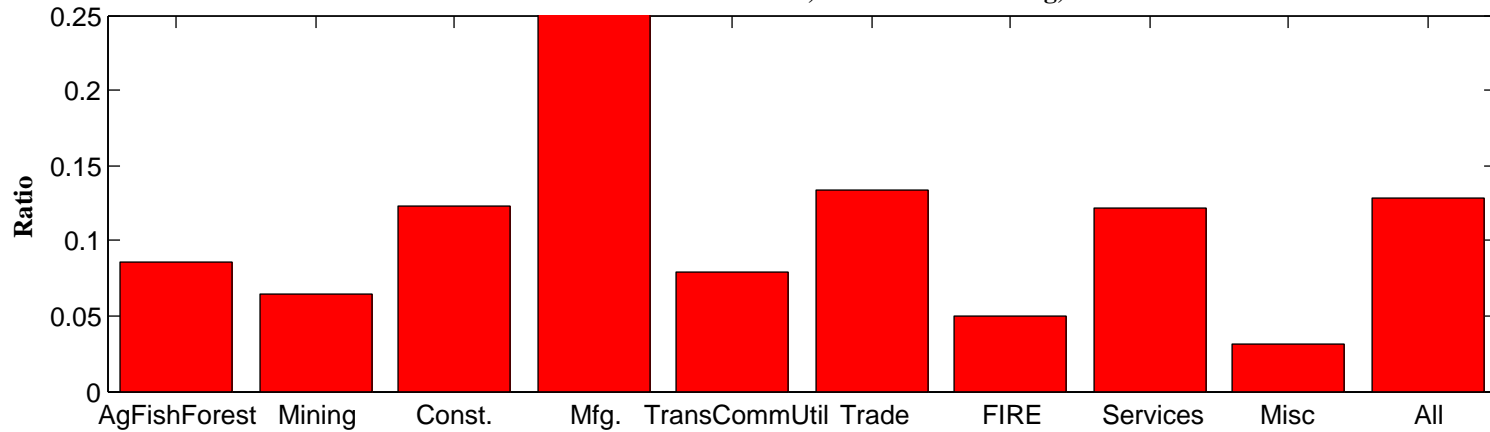
While tax planning is not illegal (and indeed only natural), the SBT invites aggressive tax planning and has now spawned outright tax sheltering activity.

Variation in SBT as a Share of Business Income. As Figure 1 illustrates on the next page, the ratio of SBT after credits to business income varies by industry. The ratio of SBT liability to business income for all industries except manufacturing, is between 3.1% and 13.4%. The lowest ratio is for miscellaneous firms, while the highest is for wholesale and retail trade. Manufacturing in 2000, based on data provided by the Michigan Treasury, had a SBT liability that was 124.9% of business income.

Figure 1. Ratio of SBT After Credits to Business Income, 2000



SBT/Business Income Ratios, Non-Manufacturing, 2000



DIFFERENT METHODS OF CALCULATING THE SBT

The following summary of the various ways in which the SBT can be calculated is excerpted from *The SBT Burdens on Michigan Industries*, by Patrick Anderson and Ilhan Geckil (Michigan Manufacturers Association, 2005), Appendix B.³

Calculation Methods

There are at least five different methods that can be used to calculate the current-law SBT. Therefore, to truly compare the SBT with an alternative, one must construct representative firms and compare them, using the most advantageous method of calculating available to the taxpayer.

Even with a simplified model, this is not an easy task with the SBT. We describe below our method, which is the most sophisticated we have seen outside of tax preparation software.

Five Methods of Calculating the SBT

There are multiple methods of calculating the tax under current law. These “methods” are not named as such in the statutes; the statutes state (in somewhat numbing prose) each individual provision. We recognize these methods by assembling a specific set of provisions; each set providing the taxpayer an opportunity to calculate the tax and arrive at a different number.

We summarize five of these, in simplified form, below.⁴ Note that some of these methods are subject to additional eligibility standards not described below, and may require adjustments that are not specified below.

1. Standard Method

SBT Liability = (Adjusted MTB * Tax Rate) - credits
(credits include the ITC)

2. Gross Receipts Reduction (GRR)

SBT Liability = [(Adjusted MTB - GRR) * Tax Rate] - credits
(credits exclude the ITC)

3. Excess Compensation Reduction (ECR)

SBT Liability = [(Adjusted MTB - ECR) * Tax Rate] - credits
(credits include the ITC)

4. Alternate Tax Rate

3. The report is available on the AEG website at: <http://www.AndersonEconomicGroup.com>. Used with permission of the authors and copyright holder.

4. Even this is not an exhaustive list. There are other variations in filing, such as “simplified” alternate filing. However, as confirmed by our reconstruction of the tax base and tax paid for the base year, we have captured nearly all of the reported data on filers. The purpose of this exercise is to illustrate the likely effects on typical firms in each industry, not to calculate the precise tax paid by any actual firm.

SBT Liability = (Adjusted Business Income * Alternate Tax Rate) - credits
(credits exclude the Small Business Credit)

5. Gross Receipts Short Method

Adjusted MTB = (50% * Adjusted Gross Receipts) - Statutory Exemption +
(Business Loss Deduction) + CAD Recapture

SBT Liability = (Adjusted MTB * Tax Rate) - credits
(credits exclude ITC)

The tax element data [the based data collected by the Treasury from tax returns] for Gross Receipts Short Method and Alternate Tax Rate Method filers are unavailable.

Appendix F: Participants in Expert Meetings

We shared our analysis with tax policy experts from a variety public and private organizations. We held two different meeting and incorporated the feedback received from the following participants. Participation in our expert discussions of methodology and data does not imply that the participants listed below agree with our approach or findings.

TABLE 3. Expert Meeting Participants

Name	Organization
Charles Ballard	Michigan State University
Tim Bartik	W.E. UpJohn Institute
Tom Clay	Citizens Research Council of Michigan
Douglas Drake	Public Policy Associates
Howard Heideman	Michigan Department of Treasury
Robert Kleine	Michigan Department of Treasury
Tricia Kinley	Michigan Chamber of Commerce
Jack McHugh	Mackinac Center for Public Policy
Dan Smith	Detroit Chamber of Commerce
Jim Stansell	Michigan House Fiscal Agency
Tim Timmerman	Ford Motor Company
Gary Wolfram	Hillsdale College

In addition to our expert meetings, we had the following people contribute or review our report:

1. Tom Clay, Citizens Research Council of Michigan
2. Douglas Drake, Public Policy Associates
3. Ilhan K. Geckil, Anderson Economic Group
4. Scott A. Hodge, Tax Foundation
5. Jeff Padden, Public Policy Associates
6. Alexander L. Rosaen, Anderson Economic Group
7. Howard Ryan, House Fiscal Agency
8. Tim Timmerman, Ford Motor Company

Appendix G: About the Authors

PATRICK L. ANDERSON

Mr. Anderson founded the consulting firm of Anderson Economic Group in 1996 and serves as the chief executive officer in the company. In this role he has successfully directed projects for state governments, cities, counties, nonprofit organizations, and corporations throughout the United States.

Prior to founding Anderson Economic Group, Mr. Anderson served as the chief of staff of the Michigan Department of State, where he supervised more than 182 offices, 2,100 employees and annual tax collections in excess of \$1.4 billion. He also served as a deputy director of the Michigan Department of Management and Budget, where he was involved in the largest state privatization project in U.S. history and the landmark 1994 school finance reform constitutional amendment.

Prior to his involvement in state government, Mr. Anderson was an assistant vice president of Alexander Hamilton Life Insurance—where he shared responsibility for \$5 billion in invested assets—an economist for Manufacturers National Bank of Detroit, and a graduate fellow with the Central Intelligence Agency in Washington, D.C.

Mr. Anderson has written over 95 articles published in periodicals such as *The Wall Street Journal*, *The Detroit News*, *The Detroit Free Press*, *American Outlook*, *Crain's Detroit Business*; and monographs published by the Mackinac Center for Public Policy, The Economic Enterprise Foundation of Detroit, the Ethan Allen Institute in Vermont, and the Heartland Institute of Chicago. His book *Business Economics and Finance* was published by CRC Press in August 2004, and his paper on “Pocketbook Issues and the Presidency” was awarded the Edmund Mennis Award for best contributed paper in 2004 by the National Association for Business Economics.

He is a graduate of the University of Michigan, where he earned a masters degree in public policy and a bachelors degree in political science. He has been a member of the National Association for Business Economics since 1983.

CAROLINE M. SALLEE

Ms. Sallee is a senior analyst at Anderson Economic Group, working in the finance and business valuation and economics and public policy practice areas. Ms. Sallee's background is in applied economics and public finance. She has worked on a number of tax, fiscal, and economic impact studies for clients in Michigan.

Prior to joining Anderson Economic Group, Ms. Sallee worked for the U.S. General Accounting Office as a member of the Education, Workforce and Income Security team. She has also worked as an analyst for HÁbitus, a market

research firm in Quito, Ecuador and as a legislative assistant for two U.S. Representatives.

Ms. Sallee holds a Master's degree in Public Policy from the University of Michigan and a Bachelor's degree in Economics and History from Augustana College.