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## SHOULD MISSOURI ELIMINATE THE INDIVIDUAL INCOME TAX?

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### EXECUTIVE SUMMARY

Missouri's economy has stagnated for years, despite some modest successes. Policymakers often respond by instituting tax credits or other incentives designed to lure new business to the state. But the general failure of government officials to predict growth industries signals the need for a new approach in creating a favorable business climate.

One alternative considered in detail by this study is to reduce or eliminate Missouri's income tax, which would alter the state's tax structure in a way that encourages a wide variety of individuals and firms to relocate here. Evidence shows that this would not be detrimental to the growth of employment and income. Moreover, it may be possible to eliminate the income tax without sacrificing current levels of state services.

Basic economic theory suggests

that a tax on income distorts the labor market, by raising the real wage rate and spurring unemployment. This theory is bolstered by numerous empirical studies, which show that states with lower tax burdens have relatively better economic track records than states with higher taxes.

Eliminating the individual income tax need not starve state and local governments of funding, either. Other states make up for lost income tax revenue in a number of ways, such as through higher property tax or sales tax rates. Currently, property taxes in Missouri are substantially lower in relation to the other states in which a property tax is levied, and other comparable states generally levy sales taxes on a larger number of services than Missouri does.

This study concludes that altering or even eliminating Missouri's individual income tax could well improve the state's economic condition.

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***The historical record is littered with the failures of governments in predicting future growth industries with any degree of accuracy.***

## I. INTRODUCTION

The fact is that Missouri is not an economic success story. Table 1 provides some comparative evidence of Missouri's economic status in the country. Based on a number of different economic indicators, Missouri often ranks among the lower half of states in the United States. For instance, looking at recent growth in real GDP, only 13 states have performed more poorly. A similar picture emerges if one considers measures of income growth. Even with recent advances in personal income, wages, and salaries, Missouri still places in the lower half of all states. Although the state's ranking of 23rd in terms of firm formation is somewhat heartening, its ranking of 6th in terms of firm termination is not. While it is possible to find some states that are faring economically worse than Missouri, there are far more doing better.

What explains this rather dismal assessment of Missouri's economic success? One possible explanation is that the state's business landscape does not lend itself to the kind of economic growth or job creation that other states enjoy. Such a view sometimes entices policymakers to create tax credits or attempt to legislate incentives that they believe will encourage certain "growth" industries to relocate to Missouri. Though intuitively appealing, this strategy for jump-starting the state's economy is not likely to succeed. Indeed, the historical record is littered with the failures of governments — local, state, and national — in predicting future growth industries with any degree of accuracy. An alternative to picking potential economic winners is to reconsider the state's tax structure. That is, instead of making marginal changes to attract specific firms or industries, a much more effective

Table 1: Assessing Missouri's Economic Success

INDICATOR	NATIONAL RANK
Real GDP <sup>1</sup>	37
Personal Income <sup>2</sup>	31
Wage and Salary Income <sup>3</sup>	36
Employer Firm Formation <sup>4</sup>	23
Firm Termination <sup>5</sup>	6

Notes:

1. Per-capita real GDP growth, 2005-06. Source: Bureau of Economic Analysis.
2. Per-capita nominal personal income growth, 2005-06 (preliminary). Source: Bureau of Economic Analysis.
3. Percentage change, 2002-03, nominal. Source: U.S. Small Business Administration, Office of Advocacy. Original source data from Bureau of Economic Analysis.
4. Rate of firm formation, 2002-03. Source: U.S. Small Business Administration, Office of Advocacy. Original source data from Bureau of the Census and Department of Labor.
5. Rate of firm termination, 2002-03. Source: U.S. Small Business Administration, Office of Advocacy. Original source data from Bureau of the Census and Department of Labor.

approach would be to alter the tax structure in a way that encourages a wide variety of individuals and firms to relocate to the state.<sup>1</sup>

The notion that a state's tax system affects its economic success has received much attention over the past few decades. In the late 1970s, researchers began to study the link between a state's tax structure and its economic growth.

These researchers found that states with low taxes also tend to be states that experience comparatively faster economic growth. These states also tend to see job growth increasing at a faster rate than in high-tax states, and enjoy more rapid increases in personal incomes. This does not mean that states can or should eliminate all taxes: Few deny that some level of government activity is both necessary and desirable. Instead, should we consider whether Missouri can alter its tax structure to enhance economic opportunities for its citizens, without diminishing the provision of government services? Given the current complexity of the state's tax structure, the next obvious question is: Which taxes should be changed, and how can Missouri's leaders make that happen?

This study focuses on one potential change: Reducing or eliminating Missouri's individual income tax.<sup>2</sup> In a related study, Vedder and Moore (2006) argue that the state should completely eliminate the individual income tax. Together with adoption of a taxpayer bill of rights — similar to that used in Colorado — and a tightening of the rules associated with the state's current Hancock Amendment, Vedder and Moore assert

that eliminating Missouri's state individual income tax would prevent unnecessary increases in taxes, allow the government to continue to fund state programs at reasonable levels, and enhance the state's prospects for economic growth. Vedder and Moore's projections of the effects are based on several important underlying assumptions.

Vedder and Moore compare Missouri's economic climate to that in neighboring states. This makes sense if one is concerned about the competitiveness of Missouri in relation to its border states. This study extends the comparison in a different way. I compare Missouri's state tax structure with states that do not levy individual income taxes. Currently, there are seven states without individual income taxes: Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming. New Hampshire and Tennessee usually are included in the "non-income tax" group, because they have very simple individual taxes that use flat rates levied only on dividend and interest income. Does this comparison suggest that Missouri could improve its economic record by eliminating its individual income tax? The fact that some states have eliminated individual income taxes indicates that they have shifted their tax burdens to other areas, such as sales or property taxes. Even so, the evidence shows that such tax shifting has not been detrimental to the growth of employment and income in these states.<sup>3</sup> Moreover, operating without the revenues from taxing individual income has not reduced the ability of these state governments to

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function. Indeed, a number of the states without individual income taxes actually have higher levels of state and local government spending per person than Missouri does. Thus, it may be possible to eliminate the income tax without sacrificing current levels of state services.

The format of this study is as follows. Section II presents a brief history of the individual income tax in Missouri. It is informative to see how Missouri's tax structure developed to have 10 separate income brackets — more than any other state in the nation. Section III uses a simple economic model to show how taxes impact individual decisionmaking — specifically, how an income tax affects individual decisions to work. Section IV compares Missouri's tax structure with non-income-tax states. This comparison shows the current Missouri tax code would need to be changed if the income tax were repealed. Section V provides some closing observations and suggestions for further research.

## II. A BRIEF HISTORY OF INDIVIDUAL INCOME TAXES IN MISSOURI

Missouri's individual income tax took effect on July 1, 1917. During the past 90 years, there have been relatively few changes to the tax. These changes, however, reflect an evolving attitude about the purpose of the income tax.

The state's initial venture into taxing individual income came during the Civil War.<sup>4</sup> Between 1861 and 1865, the state levied a tax on individual incomes above

\$800. The initial rate was 0.32 percent, lowered to 0.2 percent in 1864. In 1865, the tax rate was raised to 3 percent on salaries for individuals exempt from military service, and to 2 percent for all others. These taxes were, in effect, war taxes used to bolster the Union Military Fund. By the end of the war, the income tax had been repealed.

Like most other states in the late 1800s and early in the 20th century, Missouri's government relied heavily on property taxes for its revenue. In the early 1900s, however, there was a movement to levy income taxes and use these revenues as a substitute for property taxes. States that had initiated income taxes earlier often found that administrative costs were prohibitive when compared to the revenue the taxes generated. Experts at the time believed that the administrative hurdles were sufficiently high to keep most states from adopting income taxes as a major source of revenue.

This problem seems to have been resolved by Wisconsin, with the passage and subsequent administration of its 1911 income tax law. One widely recognized tax expert of the time, Professor Edwin Seligman of Columbia University, recognized the success of the Wisconsin experiment, but remained skeptical of other states' ability to institute income taxes that could successfully replace property taxes. Seligman (1914) believed, as did others, that "While a general income tax is ... not apt to work better than a general property tax, there are additional reasons which militate against the success of a state income tax." (427) Moreover, there was a widespread belief

that taxing income was probably best done at the federal level. As Seligman noted, “If there is any lesson to be drawn from the short experiment of Wisconsin with the income tax it is, while much can be accomplished by improved and centralized administrative methods, some form of federal regulation is necessary to secure the best results.” (428)

Missouri’s income tax following the 1917 passage of the tax law began with a flat rate of 0.5 percent. The tax was imposed on net incomes greater than \$3,000 for single taxpayers and greater than \$4,000 for married couples. In this early version, one’s income tax liability was offset by property taxes paid. By reducing individuals’ income tax liability by the amount of property taxes paid, the state’s new income tax was not viewed as an additional tax. That soon changed, however.

In May 1919, the state Legislature altered the new tax by tripling the tax rate to 1.5 percent on incomes greater than \$1,000 for single individuals, and greater than \$2,000 for heads of families. This amendment to the 1917 law also repealed the property tax deduction. Lawmakers devised the change after realizing that state government revenues could be increased substantially by taxing individual income. Although a Missouri Supreme Court decision during the summer of 1920 delayed the higher rate from taking effect<sup>5</sup>, the 1919 amendment to the original 1917 tax legislation significantly altered the tax structure. Now the income tax was being levied in addition to the property tax.

A few years later, the Legislature again amended its income tax legislation. In the summer of 1921, officials lowered

the tax rate from 1.5 percent to 1 percent on net incomes. During this time, the individual income tax was generating about a third of the state’s total revenue. The next major change in the state’s income tax took place in 1931. Effective on January 31 of that year, Missouri’s income tax changed from a flat rate to a progressive tax structure. As shown in Table 2, the progressive nature of the tax comes from the fact that the marginal rate increased in increments of one-half of a percent as income increased. The lowest marginal rate remained at 1 percent on the first \$1,000 of net income. The top marginal rate was set at 4 percent for all net incomes greater than \$9,000. The decision to make the state’s income tax progressive matched changes in federal tax policy, and reflected the desire to generate additional revenues for government redistribution. Because this tax legislation was passed during the throes of the Great Depression, officials clearly intended for it to empower the state to redistribute income. Indeed, there was a widespread belief that the Great Depression was a manifestation of uncontrolled capitalism, and that markets are inherently unstable and prone to economic collapse.

This structure of Missouri’s income tax remained intact until 1971. Beginning on January 31 of that year, the gradations of income subject to taxation were more finely defined (see Table 2) to fit the expanded marginal tax schedule. The lowest marginal tax rate, still applied to incomes up to \$1,000, was raised from 1 percent to 1.5 percent. The upper marginal tax rate was raised too, from 4 percent to 6 percent on incomes

***Missouri’s income tax began with a flat rate of 0.5 percent.***

Table 2: Missouri Individual Income Tax Rates

EFFECTIVE DATE	TAX RATE (%)	
July 1, 1917	0.5	
May 26, 1919	1.5	
August 21, 1921	1.0	
	TAXABLE INCOME	MARGINAL TAX RATE (%)
January 1, 1931	0-1,000	1.0
	1,000-2,000	1.5
	2,000-3,000	2.0
	3,000-5,000	2.5
	5,000-7,000	3.0
	7,000-9,000	3.5
	9,000 or more	4.0
January 1, 1971	0-1,000	1.5
	1,000-2,000	2.0
	2,000-3,000	2.5
	3,000-4,000	3.0
	4,000-5,000	3.5
	5,000-6,000	4.0
	6,000-7,000	4.5
	7,000-8,000	5.0
	8,000-9,000	5.5
	9,000 or more	6.0

Source: State and Regional Fiscal Studies Unit, UM-Colombia (January 2005)

greater than \$9,000. At both ends of the tax structure, these changes represented a 50-percent increase in the marginal tax rate. As noted earlier, Missouri has the largest

number (10) of marginal tax brackets, and the highest marginal rate begins at a relatively low level of income.

There have been some further,

**Missouri has the largest number of marginal tax brackets, and the highest marginal rate begins at a relatively low level of income.**

though minor, modifications in the state's income tax. In 1973, the tax base was brought in line with the federal individual income tax base. In 1994, caps of \$5,000 and \$10,000 were placed on the individual federal income tax deduction for, respectively, single taxpayers and those filling a combined return. Although these modifications obviously affect taxpayers,

there has been no major change in Missouri's individual income tax during the past 40 years.<sup>6</sup>

A detailed look at the structure of the individual income tax in Missouri is provided in Table 3. As in most states, the income tax in Missouri is not merely an application of the marginal tax rates listed in Table 2. There exist numerous

***There has been no major change in Missouri's individual income tax during the past 40 years.***

**Table 3: Details of Missouri Individual Income Tax**

TAX BASE: FEDERAL ADJUSTED GROSS INCOME				DEDUCTIONS	
<p style="text-align: center;"><u>Major Differences from Federal Law</u></p> <p>Interest/Dividend.....Exempts U.S. government bonds.            Business/Rent/Farm.....Same as federal.            Capital Gains &amp; Losses.....25% exclusion for certain sales of low-income housing.            Pension/Retirement Income              --Private.....Up to \$6,000/person excluded if meets certain income limits.              --Public.....Up to \$6,000/person excluded if meets certain income limits.              --U.S. Civil Service.....Up to \$6,000/person excluded if meets certain income limits.              --Military.....Up to \$6,000/person excluded if meets certain income limits.            Active Duty Military.....Same as federal.            Unemployment Compensation.....Same as federal.            Social Security Benefits.....Same as federal.            State/Municipal Bond Interest.....Taxable except Missouri obligations.            Health Savings Accounts.....Same as federal.            Miscellaneous              Disability Income.....Same as federal.              Lottery Winnings.....Same as federal.            Federal Income Taxes.....Up to \$5,000 is deductible (\$10,000 if combined return)            Other.....Deductions for contributions to and qualified withdrawals from family development accounts and for long-term care insurance premiums. Exempts contributions to the Missouri Savings for Tuition program, the Missouri Higher Education Deposit program, and certain business income from an enterprise zone.</p>				<p><b>Standard :</b> Same as federal.</p> <p><b>Itemized :</b> Federal itemized deductions.</p> <p><b>Major Differences from Federal Law:</b>  <b>Taxes:</b> State and local income taxes are not deductible. State deduction for FICA taxes, railroad retirement taxes, half of self-employment tax, and city earnings tax.  <b>Charitable:</b> Deduction for cultural contributions.</p>	
TAX RATES AND BRACKETS				EXEMPTIONS	
<p>Taxable Income Brackets</p> <p>\$0 - 1,000 1,001 - 2,000 2,001 - 3,000 3,001 - 4,000 4,001 - 5,000</p>	<p>Marginal Tax Rates</p> <p>1.5% 2.0 2.5 3.0 3.5</p>	<p>Taxable Income Brackets</p> <p>\$5,001 - 6,000 6,001 - 7,000 7,001 - 8,000 8,001 - 9,000 9,001 and over</p>	<p>Marginal Tax Rates</p> <p>4.0% 4.5 5.0 5.5 6.0</p>	<p>Single.....\$2,100            Married-Combined.....\$4,200            Married-Separate.....\$2,100            Married-Separate, Spouse              Not Filing.....\$4,200            Head-of-Household.....\$3,500            Dependent under 65.....\$1,200            Dependent age 65 or over.....\$2,200</p>	
TAX CREDITS		TAX CREDITS (cont.)		OTHER TAXES	
<p><input type="checkbox"/> Affordable housing assistance  <input type="checkbox"/> Disabled access  <input type="checkbox"/> Historic preservation  <input type="checkbox"/> Income taxes paid to other states  <input type="checkbox"/> Low-income housing  <input type="checkbox"/> Maternity home  <input type="checkbox"/> Neighborhood assistance  <input type="checkbox"/> Other Missouri business/economic development credits: agricultural product utilization contributor; bank tax; bank franchise tax; bond enhancement; brownfield jobs and investment; business modernization and technology seed capital; business use incentives for large scale development; charcoal producers; community bank investment; demolition; development reserve; development tax; dry fire hydrant; enterprise zone; export finance; family development account; film production; infrastructure development; new enterprise creation; new generation cooperative incentive; new or expanded business facility; qualified research expense; quality jobs; remediation; small business incubator, investment, and guaranty fees; transportation development; and wine and grape production</p>		<p><input type="checkbox"/> Processed wood energy  <input type="checkbox"/> Property tax  <input type="checkbox"/> Rebuilding communities and neighborhoods  <input type="checkbox"/> Shared care for the elderly  <input type="checkbox"/> Shelter for victims of domestic violence  <input type="checkbox"/> Special needs adoption  <input type="checkbox"/> Sponsorship and mentoring program  <input type="checkbox"/> Youth opportunities</p>		<p><input type="checkbox"/> Recapture tax on low-income housing credit.</p>	
				CONTRIBUTION/CHECK-OFF	
				<p><input type="checkbox"/> American Cancer Society  <input type="checkbox"/> American Diabetes Association  <input type="checkbox"/> American Heart Association  <input type="checkbox"/> American Lung Association  <input type="checkbox"/> Amyotrophic Lateral Sclerosis fund  <input type="checkbox"/> Arthritis Foundation  <input type="checkbox"/> Children's trust fund  <input type="checkbox"/> Childhood lead testing fund  <input type="checkbox"/> Elderly home delivered meals trust fund  <input type="checkbox"/> General revenue  <input type="checkbox"/> March of Dimes  <input type="checkbox"/> Military family relief fund  <input type="checkbox"/> Muscular Dystrophy Association  <input type="checkbox"/> National Guard trust fund  <input type="checkbox"/> National Multiple Sclerosis Society  <input type="checkbox"/> Veterans' trust fund  <input type="checkbox"/> Workers' memorial</p>	

Reprinted from Wisconsin Legislative Fiscal Bureau (2007)

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check-offs for credits, exemptions, deductions, and contributions that have raised the complexity of the tax. It is no wonder that early opposition to state income taxes was based on the grounds that it not only would create a large, expensive bureaucracy, but also that the system would inevitably evolve into the increasingly complex system that we currently have in place.<sup>7</sup>

### III. PRINCIPLES OF TAXATION

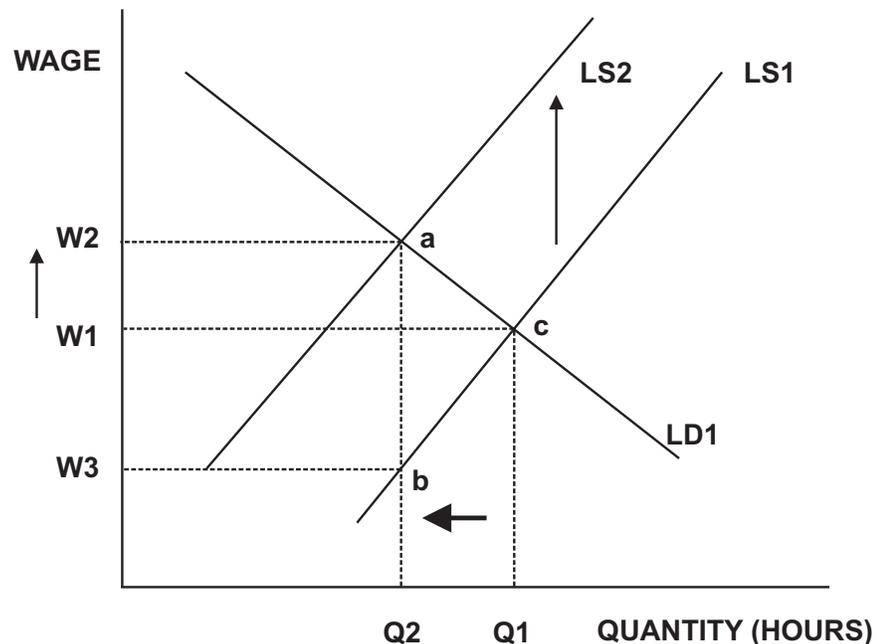
When a tax is imposed on some activity, it generally has the effect of diminishing the amount of that activity. Although the inelastic demand for cigarettes provides one counterexample, cigarette tax increases often garner popular support because people assume they will reduce the amount of smoking, especially among young people, whether or not this actually occurs.<sup>8</sup> Some taxes,

such as corporate income taxes, may also have a double effect. That is, corporations pay taxes on their profits and individuals pay taxes on their dividend income, which is derived from corporate profits. Such double-taxation can have significant distortionary effects on how corporations raise funds.<sup>9</sup>

I focus on the effects of taxing personal or individual income. For this discussion, it is assumed that one's income is derived from working. This approach ignores income derived from other sources, such as dividends or interest payments. If raising taxes on highly elastic activities has the effect of lessening those activities, will imposing a tax on individuals' income have the same effect? The answer, as we will see, is yes: The type of activity that generates income — specifically, work — is reduced once a tax on income is imposed.

To demonstrate the effect of an income tax, Figure 1 illustrates a standard

Figure 1: Effect of Income Tax on Labor Market



labor market. The vertical axis comprises different wage rates.<sup>10</sup> The horizontal axis represents the quantity of work, measured in terms of hours. Firms develop their demand for labor based on labor productivity and the strength of demand for the workers' output. Economists call this a derived demand curve. Because labor is an input to the production process, as the cost of labor rises or falls, firms alter their use of labor. Along the demand curve (LD1) in Figure 1, as the wage rate falls, firms are willing and able to hire more hours of labor because there is a greater number of profitable uses for that lower-cost labor. When firms face a higher wage, however, they hire fewer hours of labor, perhaps by employing fewer workers. The labor demand curve thus illustrates the notion that there is a negative relation between the wage rate and the quantity of labor demanded by profit-maximizing firms.

Individuals entering the labor market face a simple question: Is the market wage high enough to compensate them for giving up leisure time?<sup>11</sup> The upward sloping labor supply curve (LS1) in Figure 1 shows that as wages increase, individuals are willing to substitute more hours of work for fewer hours of leisure. If the wage does not increase, individuals won't be enticed to give up additional hours of valuable leisure time. In this way, the supply curve illustrates how the "opportunity cost" of not working increases — in terms of foregone income — as wage rates increase. Faced with higher wages, many people find it economically advantageous to substitute hours of leisure for additional hours of work.<sup>12</sup> The supply of labor, therefore, is based

on decisions made by individuals who determine the wage rate at which they wish to substitute income for leisure.

In a competitive market, the interaction between labor demand and labor supply determines the "market-clearing," or equilibrium wage. The market-clearing wage rate (W1) in Figure 1, determined by the intersection of the labor demand curve and the labor supply curve, is where the quantity of labor (hours) demanded by employers is equal to the quantity of labor (hours) that individuals are willing to supply (Q1). What makes this wage rate and the associated quantity of labor unique is that it is based on decisions that maximize firm profits and workers' welfare: All else being equal, firms are hiring workers at a wage that maximizes their profits, and individuals are supplying their labor at a wage rate that maximizes their economic well being. Given the underlying conditions, this wage-hours pair is unique: No other wage satisfies the condition that the quantity of hours demanded by employers just equals the hours that workers are willing to supply.

To see how an income tax affects the labor market — and, by extension, the economy — I compare the labor market outcome when there is no tax to a market in which an income tax is imposed. Levying a tax on income disrupts the efficiency of the market-determined outcome. The supply curve (LS2) in Figure 1 shows what happens when an income tax is imposed.

The income tax directly impacts an individual's decision to trade off hours working and hours not working. This is because the tax reduces workers' after-tax

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income for the same hours worked. When the tax is levied, the labor supply curve shifts upward. Workers must now receive a wage rate equal to the original, non-taxed, wage plus the amount of the tax to fully compensate them for the leisure time they surrender. This tax effect is shown in Figure 1 as a shift in the labor supply curve from LS1 to LS2. Without the tax, the labor market was in equilibrium, with workers willing to supply Q1 hours at the wage rate W1. With the tax, however, that equilibrium no longer holds. Because the firm's demand for labor hasn't changed, imposing the income tax induces a shift in the labor supply curve, causing the market-clearing wage to increase to W2. Given the labor demand curve, the higher wage leads to a reduction in the quantity of hours "purchased" by the firm: The higher equilibrium wage, which resulted from the income tax, lowers the market-clearing quantity of hours demanded by the firm to Q2.

An important implication of imposing an income tax is that it reduces the amount of work. Firms are forced to pay a higher wage, and there is a decrease in hours of employment.<sup>13</sup> Although the relative magnitude of the changes in wages and hours worked once a tax is imposed remains an open question, theory suggests that imposing an income tax leads to an overall reduction in employment. Conversely, removing an income tax should, according to theory, lead to an overall increase in employment. The important question for policymakers is whether states without income taxes, all else remaining equal, experience higher levels of employment and economic growth compared with states that levy

individual income taxes.

The decrease in hours worked, because of the higher wages that an income tax requires, represents a significant cost to the economy. This cost is equal to the triangular area denoted by the coordinates abc in Figure 1. In effect, imposing the personal income tax moves the labor market away from its original, economically efficient outcome — one where equilibrium wages and hours of work were determined by demand and supply. The area of the triangle abc represents a "deadweight loss" to society: Firms and workers — and the economy — would be better off at the non-tax, market-determined wage and quantity of hours worked (see Appendix on page 19). In a no-tax world, the equilibrium wage and quantity of labor is established by individuals and firms making rational, maximizing economic decisions free from the market distortions that taxes create. Imposing an income tax moves the wage rate and quantity of labor to an outcome that is inefficient in relation to the market-determined equilibrium.

Basic economic theory thus suggests that eliminating the income tax should be economically beneficial. But is there any empirical evidence which suggests that eliminating or reducing taxes will benefit the overall economy? The answer is yes. Numerous studies have found that states with lower tax burdens have relatively better economic track records than states with higher taxes.<sup>14</sup> Holcombe (2004), for example, found that states that raised their income tax rates more than neighboring states experienced relative reductions in the growth of their per capita income. Roubik (2004), using a simulation

of the Arizona economy, also reported that eliminating the income tax in Arizona would lead to increased future job creation and higher personal incomes than under the current tax structure. These findings are in basic agreement with the theoretical model: Lowering taxes leads to more jobs, and may generate conditions that promote faster income growth.

Although not apparent from the labor market model in Figure 1, eliminating income taxes may also bring other benefits to the economy. For instance, eliminating the income tax could decrease the amount of otherwise productive time lost in trying to avoid it. In one study, Harvard economist Martin Feldstein (1999) estimated that the deadweight loss associated with increasing the federal income tax is probably greater than \$2 for each additional dollar in revenue that flows to the government.<sup>15</sup> While Feldstein's analysis ignores the issues surrounding the government's redistribution of tax revenue, his results indicate that raising marginal tax rates costs the economy more than the revenue it generates for the government. If the relationship is symmetric, such findings suggest that lowering tax rates could produce a boost to the economy that is greater than dollar-for-dollar.

The upshot is that both theory and empirical findings suggest that, all else being equal, reducing or eliminating the personal income tax can be beneficial to a state's economy. Taxes create a deadweight loss to society because they push individuals to alter their behavior. Eliminating the income tax would mean that labor markets operate more efficiently, with hours worked and optimal wage rates

more accurately reflecting the interaction of demand and supply. The empirical evidence that tests this prediction points to a relatively higher rate of job growth and rising income in those states with lower income tax burdens.<sup>16</sup>

As a final note, some argue that taxing labor leads to less deadweight loss simply because the labor supply decision is relatively insensitive to the wage rate. Put simply, most people will work 40 hours per week on average regardless of small changes in their wage. While this view does not deny the existence of a deadweight loss, it merely suggests that it is small. But this view incorrectly lumps workers together. While some workers will be compelled to continue working their full-time jobs even in the face of rising income tax rates, others can and will choose to alter their behavior. Included in this latter category are workers who are more likely to respond to a small change in taxes on their labor. This group includes part-time workers, second wage earners, and elderly workers. An increase in the income tax is likely to have a much larger, negative effect on these individuals' decisions to devote more time to work or leisure. And, if they opt to stay out of the labor force — or take income outside of "official" (read: "taxable") employment — the income tax places yet another burden on employers to find qualified workers from a now smaller pool of applicants.

#### IV. SOURCES OF TAX REVENUES: MISSOURI AND NON-INCOME-TAX STATES

To discern the possible economic

***Findings suggest that lowering tax rates could produce a boost to the economy that is greater than dollar-for-dollar.***

***Is there a common source of tax revenue in states that do not levy an income tax?***

effects and consequences of eliminating Missouri’s individual income tax, examining how states without a personal income tax raise revenue is an informative exercise. I consider two aspects in this comparison. First, in terms of taxes collected, is there a common source of tax revenue in states that do not levy an income tax? That is, do these states tend to rely on one or two other taxes to replace revenues no longer coming from income taxes? Second, in these non-income-tax states, what percentage of total own-source state revenue is generated by the various taxes actually imposed?

In what follows, I compare the distribution of tax collection and revenue generation across sources for three different groups. One group comprises states that do not levy a personal income tax; the other “group” is Missouri; and the last group is all other states; that is, states

other than those listed in the tables. This arrangement is useful because it permits a comparison of Missouri to the non-income-tax states, and to all others that may be considered as “peer” states.

**Percent of total state taxes collected by source**

A comparison of tax collection for Missouri, non-income-tax states, and all other states is presented in Table 4. All percentages are measured in per-capita terms, using 2005 data. Even though there is a large variety of taxes imposed, it is most informative to combine them into seven main categories: property taxes, sales taxes, selective sales taxes (which include state excise taxes), individual income taxes, corporate income taxes, license taxes, and the catchall “other” category. This final category is important because it includes gift and death taxes, documentary and stock transfer taxes,

**Table 4: Percent of Total Tax Collection by Tax Type  
Missouri and Selected States  
(2005, per capita)**

STATE	PROPERTY	SALES	SELECTIVE SALES*	INDIVIDUAL INCOME	CORPORATE INCOME	LICENSE	OTHER
Alaska	2.3	---	10.7	---	31.7	5.4	49.9
Florida	0.9	56.2	19.0	---	5.3	5.6	13.1
Nevada	3.0	45.0	33.6	---	---	14.1	4.4
New Hampshire	19.4	---	34.9	3.3**	23.6	10.1	8.7
S. Dakota	---	56.0	25.4	---	4.4	13.5	0.7
Tennessee	---	61.1	15.3	1.6**	8.1	10.9	3.1
Texas	---	49.9	29.0	---	---	13.7	7.5
Washington	10.7	61.6	16.8	---	---	4.9	5.9
Wyoming	10.4	30.0	6.9	---	---	6.2	46.5
Average	7.8	51.4	21.3	2.4	14.6	9.4	15.5
Missouri	0.2	31.8	16.4	42.1	2.2	6.7	0.5
All other	1.6	29.0	13.9	40.4	6.5	6.1	2.5

\* Includes state excise taxes

\*\*Income tax levied on dividends and interest income only

and, most importantly for this discussion, severance taxes. The latter component is important for this comparison, because in some states a large percentage of tax revenue comes from taxing extractive industries, such as oil and gas.

To simplify the discussion of Table 4, it is useful to pull out two states from the non-income-tax group: Alaska and Wyoming. These two states are singled out because, as Table 4 reveals, each state derives an inordinately large fraction (nearly 50 percent) of its total tax revenue from one source: the “other” category. In these two states, the major source of tax revenue is a bundle of “severance taxes” — taxes levied on extractive industries such as oil, gas, and, in the case of Alaska, fishing. For these two states, reliance on this one category for tax revenue is much greater than in Missouri and the rest of the states, and this may make them less comparable.

There are several “themes” that emerge from perusing the entries. First, as a percentage of total taxes collected, property taxes in Missouri are substantially lower in relation to the other states in which a property tax is levied.<sup>17</sup> Even though property tax collections generally are not a large part of total taxes in most of the non-income-tax states, they represent a significant source of revenue in New Hampshire and Washington. In each of these states, property taxes are in the double digits as a percentage of total tax collection. In New Hampshire, the percentage is close to 20 percent of the total. Compared with its “peer” group, Missouri’s property tax as a percentage of total collections is small, about one-eighth of the state average.

A second theme is that general sales taxes clearly are a major source of tax revenue in most states that do not levy income taxes. Compared with states that levy a general sales tax, only one state (Wyoming) collects a smaller proportion of total sales taxes than in Missouri. In the other non-income-tax states, general sales tax collections are a predominant component of total taxes collected. The average percentage is over 50 percent, ranging from 45 percent in Nevada to about 61 percent in both Tennessee and Washington.

The third theme is that several of the non-income-tax states collect a large portion of their state taxes through selective sales taxes. Missouri’s selective sales tax accounted for about 16 percent of total taxes collected in 2005. This is much lower than for many of the non-income-tax states. The percentage is notably higher in Nevada (34 percent), New Hampshire (35 percent), South Dakota (25 percent), and Texas (29 percent). The pattern that emerges from this comparison is that in lieu of income taxes, many of the states that do not levy an income tax rely instead on sales taxes to generate a relatively large percentage of their taxes collected.

There are exceptions, however. Combined sales taxes in Alaska, New Hampshire, and Wyoming account for a smaller percentage of total taxes collected than they do in Missouri. Where do these states raise their tax revenue? I’ve already noted that Alaska and Wyoming depend heavily on taxes derived from extractive industries. In addition, a large percentage of total taxes in Alaska and New Hampshire come from taxing corporate

***Property taxes in Missouri are substantially lower in relation to the other states in which a property tax is levied.***

***In most non-income-tax states, sales-based taxes are a major component of total taxes collected.***

income (31 percent and 24 percent, respectively). These percentages are much higher than Missouri's 2.2 percent.

To determine how Missouri and the non-income-tax states compare with the rest of the United States, look at the last few rows in Table 4. It is clear that the non-income-tax states, as a group, collect a much higher percentage of their total taxes from general and selective sales taxes. The average for the combined tax is about 73 percent for the non-income-tax states, about 48 percent for Missouri, and 43 percent for all other states. Although there are not large discrepancies between Missouri and the "all other" category, the averages do indicate that Missouri is a relatively low property tax state, and that its corporate income tax is relatively less onerous than the average. On the other hand, the percentage of total taxes from the individual income tax is higher for Missouri (42 percent) than for the broader

average (40 percent).

The upshot from Table 4 is that in the non-income-tax states, except for Alaska and Wyoming, sales-based taxes are a major component of total taxes collected. In Table 4, the average percentage of total taxes collected from a general sales tax is slightly higher than 50 percent for the non-income-tax states. The selective sales tax is responsible for, on average, more than one-fifth of total taxes collected. When combined, the total amount of sales taxes accounts for nearly three-fourths of all taxes collected in all states except Alaska, New Hampshire, and Wyoming. The combined percentage is about 48 percent for Missouri, which is slightly less than the national average of approximately 53 percent.

**State own-source revenue:  
Percent by source**

Table 5 takes a slightly different

**Table 5: Percent of Own Source Revenue by Tax Type  
Missouri and Selected States (per capita, 2005)**

STATE	PROPERTY	SALES	SELECTIVE SALES*	INDIVIDUAL INCOME	CORPORATE INCOME	LICENSE	OTHER
Alaska	0.8	---	3.6	---	10.6	1.8	16.7
Florida	0.7	43.5	14.7	---	4.1	4.3	10.1
Nevada	2.2	32.8	24.5	---	---	10.2	3.2
New Hampshire	11.9	---	21.4	2.1**	14.4	6.2	5.3
S. Dakota	---	35.4	16.0	---	2.8	8.5	0.4
Tennessee	---	45.5	11.4	1.2**	6.0	8.1	2.3
Texas	---	33.1	19.2	---	---	9.1	5.0
Washington	8.1	46.7	12.7	---	---	3.7	4.5
Wyoming	7.6	22.0	5.0	---	---	4.6	34.1
Average	5.2	37.0	14.3	1.65	7.6	6.3	9.1
<b>Missouri</b>	<b>0.2</b>	<b>22.5</b>	<b>11.6</b>	<b>29.7</b>	<b>1.6</b>	<b>4.7</b>	<b>0.4</b>
All other	1.2	21.7	10.4	30.2	5.0	4.6	1.9

**Note: Rows do not sum to 100%**

\* Includes state excise taxes

\*\*Income tax levied on dividends and interest income only

Source: Federation of Tax Administrators and the U.S. Bureau of Census. Downloaded from the Tax Foundation.

look at the taxes collected in various categories. In this table, the figures listed are the percentages of own-source state revenue that each tax source generates (again, all percentages are measured in per-capita terms, using 2005 data). That is, each entry shows the amount of that tax as a percent of general revenue — taxes and other sources, including bond income, fees, etc. — collected by the state.<sup>18</sup>

The figures in Table 5 differ from the comparison in Table 4. Those in Table 5 make clear how each state government relies on certain taxes as a revenue source — that is, as a source of funds spent by the state government. To see this more clearly, consider a simple example. Suppose that total collected taxes equals \$100. If collected sales taxes account for \$53, the figure listed in Table 4 would be 53 percent. But what if the total revenue of the state is \$1,000? Now the \$53 from sales taxes is only a small fraction of total revenue (5.3 percent). When judging how important each tax is to generating state revenues — and to the funding opportunities faced by state government officials — it is useful to compare the relative importance of the various tax types in terms of total state revenue.

Overall, states that do not levy income taxes rely on sales taxes as a major source of general revenue.<sup>19</sup> In Florida, Nevada, South Dakota, Tennessee, Texas, and Washington, more than 50 percent of own-source revenue comes from total sales taxes (general and selective combined). Missouri's reliance on sales taxes as a source of revenue (34 percent) is much lower than in non-income-tax states. A major implication of this is that

if Missouri were to eliminate its individual income tax and model its new tax structure after similar states, sales taxes as a source of revenue would likely take on added significance.

Of the states that do not raise a large portion of their revenue from sales taxes, the other two important sources are from corporate income (Alaska and New Hampshire) and severance tax collections (Alaska and Wyoming), included under the broad “other” category. On that note, it is informative to point out that Missouri gets a relatively low percentage of its revenue from its corporate income tax. While corporate income taxes account for 7.6 percent of state revenues for the non-income-tax states, this tax amounts to less than 2 percent of Missouri's general revenue.<sup>20</sup> From a corporate tax perspective, for businesses deciding where to locate this may make Missouri a relatively more appealing state than the other states in the table.<sup>21</sup> The important policy question is whether this positive factor is outweighed by the negative attributes of the state's individual income tax.

How does Missouri fare when the comparison group is broadened to the “all other” states category? This is answered by comparing the numbers in the last three rows of Table 5. In this comparison, Missouri appears to be closer to the norm than in Table 4 — i.e., it still looks like a state low in corporate and property taxes. In contrast to Table 4, Missouri relies less on individual income tax revenues as a source of funding than does the national average. A comparison of sales tax revenues yields a similar result. The bottom line: Based on a comparison of

***Missouri relies less on individual income tax revenues as a source of funding than does the national average.***

***The states in our comparison group generally levy sales taxes on a larger number of services than Missouri does.***

various taxes as sources of revenue, Missouri and the other income tax states are much less reliant on sales taxes as a key source of funding than is the average non-income tax state.

## Discussion

The percentages in Tables 4 and 5 suggest that most non-income-tax states rely on sales taxes to offset revenue lost from the lack of an income tax. Does this also mean that these states impose higher sales taxes than Missouri? Data to answer this question can be found in Table 6, which lists states' sales tax rates and their degree of coverage for 2007. Missouri's base sales tax rate is 4.225 percent. Except for Alaska and New Hampshire, which do not levy a state sales tax, Missouri's sales tax is among the lowest in the group. In contrast, Tennessee has the highest sales tax rate, at 7 percent. Although not reported in the

table, the average state sales tax for all other states is 5.36 percent.<sup>22</sup>

It is interesting to note that the states in our comparison group generally levy sales taxes on a larger number of services than Missouri does. The data are based on a survey conducted by the Tax Administration, and cover a total of 180 possible services subject to sales tax. Based on the most recent data available (2004), Missouri's sales taxes cover 40 different services. States that rely more heavily on sales taxes as a source of state revenue not only average a higher base sales tax rate, but they also tend to levy these taxes on a much wider array of services. Florida's sales tax, for example, covers 67 separate services; in Tennessee, the number is 79. South Dakota and Washington impose sales taxes on an amazing 155 and 170 different services, respectively.

**Table 6: State Sales Tax Rates and Coverage  
Missouri and Selected States**

STATE	SALES TAX*	NUMBER OF SERVICES COVERED**
Alaska	N/A	N/A
Florida	6%	67
Nevada	6.5%	25
New Hampshire	N/A***	N/A
S. Dakota	4%	155
Tennessee	7%	79
Texas	6.25%	92
Washington	6.5%	170
Wyoming	4%	74
Average	5.75%	N/A
<b>Missouri</b>	<b>4.225%</b>	<b>40</b>

\* Sales tax rates as of January 1, 2007. This is the base sales tax rate and may be different from various exempted items, such as food and drugs.

\*\* Based on 2004 survey by Tax Administration. Total possible items are 180.

\*\*\* Although New Hampshire has no state sales tax, it does impose a sales tax on various services, including phone services, Internet services, auto rental, and hotels, motels, and lodging houses.

Not only does the number of services taxed differ across states, but some states are able to reap tax revenue from high-demand areas. I've already mentioned that severance taxes on extractive industries are an important source of tax revenue in Alaska, Wyoming, and, to some extent, Texas. Tourism is an example of an industry that allows some states to enjoy a comparable advantage in using a sales tax to generate revenue. Florida, for example, always ranks as one of the most popular travel destinations, in terms of both traveler spending and the total number of visitors. Based on industry estimates for 2003, travelers (both domestic and international) to Florida spent more than \$56 billion. Texas and Nevada also rank among states with the highest traveler spending. In 2003, visitors to Texas spent an estimated \$35 billion, and for Nevada the figure is

**Table 7: State and Local Spending  
Missouri and Selected States  
(per capita, FY 2004)**

STATE	SPENDING PER CAPITA
Alaska	\$15,227
Florida	6,646
Nevada	6,936
New Hampshire	6,425
South Dakota	5,982
Tennessee	7,086
Texas	6,447
Washington	8,749
Wyoming	15,330
Average*	8,758
<b>Missouri</b>	<b>6,175</b>
All other	7,462

\*Average without Alaska and Wyoming: \$6,895  
Source: Tax Foundation

\$21 billion.<sup>23</sup> Available data indicates that travelers visiting Missouri spent only \$6 billion in 2005.<sup>24</sup> Clearly, some states are able to capitalize on their attractiveness as a vacation or conference destination as a means to offset the potential revenue loss from discontinued personal income taxes.<sup>25</sup>

States without individual income taxes rely heavily on other sources for state revenues, primarily sales taxes. These sales taxes are generally levied either at a higher rate or on a wider array of services than in Missouri, or some combination of the two.<sup>26</sup> There are exceptions: Alaska relies more on corporate income taxes and severance taxes; New Hampshire relies on property and corporate income tax revenues; and Wyoming obtains over one-third of its own-source revenue through severance taxes. Clearly, if Missouri reduced revenue derived from its individual income tax, and no diminution of current spending occurred, other sources of tax revenue would need to be found. This comparison shows that most non-income-tax states have sought these funds through sales taxes.

During the preceding discussion, I pointed out that eliminating income taxes would necessitate either a search for alternative state revenue sources, or a reduction of state spending. To examine this issue, I compared spending in Missouri to that in states without income taxes. Would eliminating the individual income tax in Missouri necessarily mean a reduction in government services? The answer is provided in Table 7.

In fiscal year 2004, state and local spending in Missouri was comparatively low in relation to other states nationwide. Missouri's expenditures of \$6,175 per

***If Missouri reduced revenue derived from its individual income tax, other sources of tax revenue would need to be found.***

***Eliminating the individual income tax need not starve state and local governments of funding or force them to reduce provision of services.***

person ranked the state at 46th in the nation. How does this compare to the state's "peer" group, and to those states without an income tax? For the group of states that excludes Missouri and the non-income-tax states, per-capita state and local spending averaged \$7,462 in 2004. As shown in Table 7, every non-income tax state except for South Dakota had higher per-capita state and local expenditures than did Missouri. In some instances, most notably Alaska and Wyoming, the difference is quite large. Now consider two different averages. If Alaska and Wyoming are included, the average per-capita state and local spending for the non-income-tax states is \$8,758. If those two states are excluded, the average drops to \$6,895. Even without Alaska and Wyoming, average per-capita state and local spending by non-income-tax states is more than 10 percent higher than Missouri's. This suggests that eliminating the individual income tax need not starve state and local governments of funding or force them to reduce provision of services.<sup>27</sup>

The question of whether to reduce or eliminate personal income taxes has been raised in other states, including Arizona and Georgia, and in the Canadian province of Alberta.<sup>28</sup> A recent study examining the effects of eliminating Georgia's income tax — which assumed that state expenditures would remain fixed at current levels — found that a 79-percent increase in taxes on general sales and gross receipts would be necessary to offset the loss of income tax revenue. This static analysis may not capture the future benefits that eliminating the personal income tax would bring. (Recall that the theoretical analysis suggests that eliminating the income tax

can actually raise the level of economic activity.) An empirical study that focuses on the Arizona economy suggests that eliminating the income tax could even increase government revenues.<sup>29</sup>

Eliminating the individual income tax would require significant changes in Missouri's current tax structure. I've noted that states without individual income taxes often make up their revenue loss by taxing sales more heavily. Some would argue that such a change merely replaces a progressive tax with a regressive tax. I do not address that point here, although it must be considered as the debate proceeds. There are many facets to this debate: Is the progressive income tax really progressive? Could the regressivity of the sales tax be reduced through tax credits for certain income groups? Would all items be taxed at the same rate? While such questions must be addressed if the state increases its dependence on sales taxes, officials should not prevent discussion and debate over the potentially positive economic effects of removing the individual income tax.

## **V. CONCLUDING REMARKS**

Missouri is not advancing economically as fast as states that do not levy a personal income tax. In terms of income, jobs, output, or number of firms created, Missouri has tended to lag behind those other states. While it would be difficult to argue that this outcome is due solely to the impact of the individual income tax, the evidence suggests that the presence or lack thereof of an individual income tax could well be an important factor that helps explain the

observed difference.

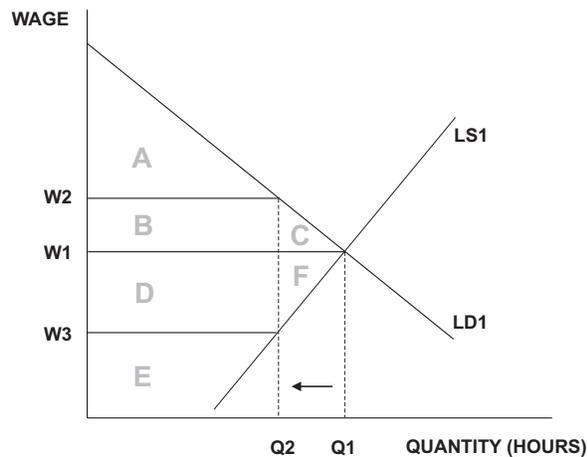
I chose to compare states on the basis of whether they impose a tax on personal income. Other obvious choices for comparison are states that impose corporate taxes, how and to what extent states use sales taxes, etc. What I've found is that states without personal income taxes rely more heavily on revenues from other sources, especially sales taxes, and that these states, on average, have not faced diminished state or local spending. Based on these results, and the findings from other studies pertinent to this discussion, it's clear that altering or even eliminating Missouri's individual income tax could well improve the state's economic condition. For no other reasons, this possibility makes the issue worthy of discussion.

## APPENDIX

In the text, I illustrated the effects of imposing an income tax by charting a shift in the supply curve of labor. This shift shows that once an income tax is imposed, a higher wage will be required to coax workers into working the same number of hours they would have been willing to work prior to the tax. Because workers prefer leisure to labor, this higher wage must compensate them for giving up their preferred activity. My analysis in the text pointed out that an income tax leads not only to an increase in the wage rate and a reduction in the total number of hours worked, but that it also generates a "deadweight loss" to society. This appendix provides a more detailed explanation of what exactly a deadweight loss entails.

Figure A1 reproduces Figure 1, with

Figure A1: Effect of Income Tax on Labor Market



one exception: This modified version of the figure omits the after-tax labor supply curve. From the earlier figure, we know that imposing an income tax leads to higher wages being paid and fewer hours being worked. Because our purpose here is to explain the deadweight loss that the tax generates, I have removed the post-tax labor supply line to make the figure less cluttered.

Figure A1 demonstrates that without an income tax, the labor market will settle on the equilibrium wage rate  $W_1$ . At that wage, workers are willing to supply  $Q_1$  hours of labor — exactly the quantity of hours that firms are willing to buy. On the firm's (buyer's) side of the labor market, this wage defines the economic benefit to firms. That is, at wage rate  $W_1$  with  $Q_1$  hours of work purchased, firms enjoy a "consumer surplus" equal to the area denoted by  $A + B + C$  in Figure A1. This region above the market price and below the firm's demand curve shows the total amount the firm is willing to pay in relation to the amount it actually pays. To understand this, an analogy might help. You might be willing to pay \$3 a gallon for gasoline, if you had to, but if

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***When free markets are in equilibrium, they maximize the total of consumer and producer surplus. Taxes, however, upset this efficient outcome.***

the price is only \$2 a gallon you have a consumer surplus of \$1 for each gallon you purchase. If the market price moves lower, further from \$3, your consumer surplus increases and you are better off. For you — the consumer of gasoline — your consumer surplus (the size of the A + B + C triangle) increases as the price of gasoline falls. Similarly, for the firm — the consumer of labor — its consumer surplus is the difference between the highest wage it would be willing to pay, if it had to, and the market wage rate. The lower the wage paid the “better off” is the firm.

Now turn to the workers’ side of the market. In this analysis, workers are the “producers” of labor. The economic benefit to workers of the wage rate W1 and quantity Q1 can be measured as the area D + E + F; essentially, this is the area below the wage rate and above the supply curve. This area is referred to as the “producer surplus,” which typically measures the amount that a supplier is willing to take for the goods it sells, minus the cost of producing them. In this case, the producer surplus measures the economic benefit to a worker (the supplier of labor) for supplying Q1 hours of work at wage rate W1.

When free markets are in equilibrium, they maximize the total of consumer and producer surplus. Taxes, however, upset this efficient outcome. When a government imposes a tax it takes some of the total consumer/producer surplus for itself, in the form of tax revenues. The size of the government’s revenue is determined by the size of the tax. In Figure A1, the government’s tax revenue equals the area B + D. Because the income tax raises the wage that firms must pay to attract workers, from W1 to W2, the consumer

surplus decreases from the area A + B + C to only A — making firms worse off. The government absorbs part of the pre-tax consumer surplus as tax revenue, the part denoted by the area B. This leaves part of the original consumer surplus, C, unaccounted for. The after-tax wage received by workers, shown in the figure as wage rate W3, is lower than the pre-tax equilibrium wage of W1. This means that the producer surplus previously enjoyed by workers must decrease. As shown in the figure, producer surplus decreases from the area D + E + F to only E. Again, the government absorbs part of the original surplus as tax revenue (denoted by D) and this leaves part of the original producer surplus, the area F, unaccounted for.

When taxes are imposed, the deadweight loss to society is that portion of the original total surplus from which no one in society now benefits. In Figure A1, the deadweight loss that arises from imposing the income tax amounts to the area C + F. This is the same as the triangle abc in Figure 1 of the text. We refer to this reduction in total surplus as a “deadweight” loss because no group in society can claim it as a benefit — not firms, not workers, and not even the government. Consider this: Even if the government returned the tax revenue it collected (B + D) to the buyers and sellers of labor, some of the total surplus (C + F) that would have been produced by a free market for labor would still be missing.

## NOTES

- <sup>1</sup> One recent argument for this type of tax reform is Haslag, et al. (2007).
- <sup>2</sup> Technically, Missouri’s personal income tax is referred to as an “individual income tax.” Other states refer to it as the “personal

income tax.” Although I use both terms, they really mean the same thing.

<sup>3</sup> I recognize that shifting taxes may differently affect the tax burdens of various groups. This topic is outside the scope of this study.

<sup>4</sup> This discussion of the early years of the Missouri income tax draws heavily on Pyle (1922).

<sup>5</sup> Upholding a claim by a Jefferson City real estate broker, the court ruled that the rate increase violated the state’s constitutional provision prohibiting passage of a “law impairing the obligation of contracts or ‘retrospective in its operation’.” [Pyle (1922), p. 366] In essence, the court ruled that the old rate would hold up until the time that the amended rate took effect, for the balance of the year.

<sup>6</sup> Of course, the passage of the Hancock Amendment to the Missouri Constitution (Article X) has had a significant effect on the state’s fiscal policies. This change is not, per se, a change in the income tax structure, so it is not dealt with in this discussion. For a discussion of the amendment, see Moody (1999).

<sup>7</sup> Increased complexity of a tax structure also can promote inequities in its application. The more difficult the tax code, the more likely it is that affluent taxpayers will seek and afford professional help. Without such help, other taxpayers may in fact pay more taxes than they should. This idea was suggested by Berkeley economist Raj Chetty (personal correspondence) and derives from his related work on sales and excise taxes. See Chetty, et al. (2007), and the references contained therein.

<sup>8</sup> Arguably, another important consideration was the fact that it generates additional state revenues.

<sup>9</sup> For example, firms may opt for loans and bonds instead of equity as sources of funding.

<sup>10</sup> In this analysis, the wage used is the real wage — that is, the market or nominal wage adjusted for inflation.

<sup>11</sup> Leisure time here is defined simply as time not spent working for compensation.

<sup>12</sup> This is often referred to as the labor-leisure decision. This relation between wages and the supply of labor is most easily seen in overtime pay: After 40 hours, firms entice workers to put in additional hours by paying them more than their normal wage rate. For salaried employees, the carrot for working additional hours may be increased chances of promotion, or bigger year-end bonuses.

<sup>13</sup> Whether the total wage bill — wages paid times hours worked — is higher or lower after the tax depends on the elasticity of the labor demand and supply curves. For instance, the greater the labor elasticity, the greater the reduction in hours worked as the income tax is increased. How much the labor supply curve shifts with respect to a given change

in income taxes, mostly through marginal tax rates, is an area of continued debate among economists.

<sup>14</sup> One of the original analyses of the tax-growth link among states is Genetski and Chin (1978). For an extensive bibliography of the work related to taxes and growth, see Vedder (2002).

<sup>15</sup> Feldstein argues that most estimates of the deadweight loss associated with income taxes ignore the effect of the taxes on compensation and consumption patterns.

<sup>16</sup> On a more theoretical note, Ireland (1994) compares the impact of income taxation in two different models of economic growth. The Solow (1956) model, which became the foundation for most research into economic growth, found that an income tax alters the level of income but not its growth rate. The other model, based on the work of Knight (1944), found that the income tax lowers the growth rate of income. As Ireland’s work suggests, income taxes — regardless of the theoretical model — negatively affect income, either lowering its level and/or its rate of growth.

<sup>17</sup> South Dakota, Tennessee, and Texas do not levy property taxes at the state level.

<sup>18</sup> For this reason, the percentages do not need to sum to 100 percent.

<sup>19</sup> This statement clearly does not apply to Alaska, where less than 4 percent of revenue is derived from sales taxes. Instead, Alaska relies mostly on revenue from severance taxes. It is worth noting, however, that the percentage of total revenue from “other” taxes, 17 percent, is much lower than the comparable figure in Table 4, 50 percent. This illustrates the usefulness of using the two approaches.

<sup>20</sup> The average is clearly skewed by two states: Alaska and New Hampshire. Removing these two states still yields an average percentage that is greater than Missouri’s.

<sup>21</sup> The Tax Foundation publishes an annual State Business Tax Climate Index in which all states are ranked by various measures of taxation. In its 2007 “corporate tax index,” Missouri was ranked 10th in the nation. Not surprisingly, given the numbers in Tables 4 and 5, New Hampshire ranked 49th.

<sup>22</sup> This average excludes Delaware, Montana, and Oregon, because they do not levy a state sales tax.

<sup>23</sup> Estimates taken from the Travel Industry Association, [www.tia.org](http://www.tia.org), “Fast Facts.”

<sup>24</sup> Kaylen (2006). This figure is for domestic travelers only.

<sup>25</sup> More specifically, in 2005, Missouri collected \$56 (per capita) in sales taxes from amusements, compared with \$387 for Nevada. While this may not be surprising, given Nevada’s attraction as a tourist destination, Florida does not levy a sales tax on amusements.

<sup>26</sup> Texas and Washington also levy a gross

receipts tax, which is included under the sales tax umbrella.

- <sup>27</sup> Some may argue that the best reason to reduce government revenue is to trigger reduced state spending and, therefore, state involvement in the economy. That is a philosophical issue that is best addressed elsewhere.
- <sup>28</sup> See Roubik (2004), Sjoquist (2007), and McKenzie (2000), respectively. In 2004, Congressman Chaka Fattah (D-PA) introduced the Transform America Transaction Fee (HR 3759), which called for the elimination of all federal taxes on personal and corporate income, to be replaced by a transaction fee. See Skorburg (2004) for details.
- <sup>29</sup> Roubik (2004). Roubik used a dynamic model to estimate the effects on job creation and personal income growth that would occur if Arizona repealed its state income tax. That study found that the overall tax burden on Arizona's citizens would decline, and that eliminating the income tax would spur economic growth through job creation and through faster growth in personal income. The results also showed a growth in government revenues in relation to a baseline projection using current tax structures.

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The Show-Me Institute is a research and educational institute dedicated to improving the quality of life for all citizens of Missouri.

The Institute's scholars study public policy problems and develop proposals to increase opportunity for ordinary Missourians. The Institute then promotes those solutions by publishing studies, briefing papers, and other educational materials. It also forms constructive relationships with policymakers and the media to ensure that its research reaches a wide audience and has a major impact on public policy.

The work of the institute is rooted in the American tradition of free markets and individual liberty. The institute's scholars seek to move beyond the 20th-century mindset that every problem has a government solution. Instead, they develop policies that respect the rights of the individual, encourage creativity and hard work, and nurture independence and social cooperation.

By applying those principles to the problems facing the state, the Show-Me Institute is building a Missouri with a thriving economy and a vibrant civil society — a Missouri that leads the nation in wealth, freedom, and opportunity for all.

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