



*Options for West Virginia  
Tax Reform*

David G. Tuerck, PhD  
Paul Bachman, MSEP  
Frank Conte, MSPA

**THE BEACON HILL INSTITUTE**

Boston, MA

Tel: 617-573-8750, Fax: 617-994-4279

Email: [bhi@beaconhill.org](mailto:bhi@beaconhill.org), Web: [www.beaconhill.org](http://www.beaconhill.org)

**MARCH 2016**

## Executive Summary

The drop in commodities prices along with a regulatory push to deemphasize fossil fuels in the nation's energy mix is taking a toll on West Virginia, whose economy depends on its major mining extraction industries, particularly coal.<sup>1</sup> As expected, the decline in coal mining has permeated the rest of the state's economy and diminished the revenue base for state and local governments, which provide necessary public goods such as infrastructure and education.

West Virginia is one of the few states beset by the "resource curse," where dependence on one industrial sector rises and falls with the vagaries of external factors. Even in good times, when strong demand buoyed commodities markets, West Virginia's economy underperformed other states. The state clearly needs to diversify its industrial base. Reforming its tax system may be one way to develop an economy that is suited to the 21<sup>st</sup> century, that is less reliant on the energy market and that is more reliant on human capital. Recent research is pointing to the fact that tax policies do matter.

In an effort to understand better the effects of different tax reform policies on the West Virginia economy, the Beacon Hill Institute at Suffolk University (BHI) developed a West Virginia State Tax Analysis Modeling Program (WV-STAMP®) to determine how alternative tax law changes might improve the performance of the state economy. A dynamic general-equilibrium model, such as STAMP, accounts for these changes and their highly complex impact on key economic indicators.

WV-STAMP simulates the behavioral changes brought about by tax changes. We examined several scenarios that eliminate the following taxes:

- The sales tax
- The corporate income tax
- The severance tax
- Business property taxes and
- Personal property taxes

---

<sup>1</sup> Chris Dickerson, "EPA Rules Draw Wide Criticism in W.V.," *The West Virginia Record*, June 2, 2014  
<http://wvrecord.com/stories/510587209-epa-rules-draw-wide-criticism-in-w-va>.

In addition, we examine changes to the:

- Cigarette Tax
- Residential Property Tax
- Various income tax rates

These tax changes produced the following results:

- Eliminating the sales and business property taxes would increase households' incomes by more than \$1 billion and create 14,000 and 20,000 new private-sector jobs respectively;
- Eliminating the four lowest personal income tax brackets would provide similar results;
- Eliminating business property taxes would induce more than \$850 million in new investment;
- Eliminating the severance tax, personal property taxes or corporate income tax as well as an across the board 2 percentage point cut in personal income tax rates would provide far less economic impact to the private sector.

Tax cuts, at the same time, are not the only way to improve long-term economic prosperity in West Virginia. Legislators could also simply change the tax mix, for example, by reducing property taxes and making up for them by raising the sales tax rate. By just changing the mix this way — by “swapping” one tax for another — the state would gain 2,725 private-sector jobs, realize an increase of \$381 million in investment, and see an increase of \$111 million in real, disposable income.

In contrast, reducing the corporate income tax and severance tax rates in exchange for eliminating exemptions does not provide much of an impact to the private economy.

Realigning a state's tax regime to induce growth is a challenge. Decisions to shift the tax base or cut the tax rate ultimately rest on normative considerations which may favor the taxation of income (which, on the downside, imposes efficiency costs) or consumption taxes (which diminish the purchasing power of low income workers). Nevertheless, the purpose of this study is to identify the positive and negative impacts on economic growth.

## Introduction

The worldwide drop in fossil fuel prices and stringent new federal environmental rules have seriously diminished the West Virginia coal mining industry. As a result, the highly critical coal mining sector has reverberated through the entire state economy. The downturn has shrunk state and local tax revenue collections and threatened basic public services, such as infrastructure and education.

In its 2014 State Competitiveness Report, the Beacon Hill Institute ranked West Virginia 44<sup>th</sup> out of 50 states. The state lags in the report's competitive sub-indexes for infrastructure (46<sup>th</sup>), trade or openness (37<sup>th</sup>), technology (46<sup>th</sup>), human resources (35<sup>th</sup>), environment (35<sup>th</sup>) and business incubation (34<sup>th</sup>). The state fares well in the sub-indexes for security (2<sup>nd</sup>) and fiscal policy (14<sup>th</sup>).<sup>2</sup>

However, if we drill deeper into the fiscal policy sub-index the state ranks only 32<sup>nd</sup> out of 50 in state and local taxes per capita over income per capita.<sup>3</sup> Tax policy reform could help boost West Virginia's competitiveness compared with the rest of the country.

State tax policy is becoming more critical in the ongoing debate about the relationship between taxes and economic performance. The relationship can no longer be discounted. The evidence is becoming clearer that changes in tax rates have measurable effects on taxable activities, directly, and on other economic activities, indirectly.<sup>4</sup> Yet, policymakers seldom consider these effects adequately when they contemplate tax changes, partly because of the absence of tools to conduct a high-quality analysis of the effects rooted in real numbers.

When contemplating tax reform, state policymakers may ask themselves what mix of state taxes are less 'harmful' to the economy. The answer depends on the goals desired, the

---

<sup>2</sup> Beacon Hill Institute, State Competitiveness Report 14<sup>th</sup> edition (2015) available at <http://www.beaconhill.org/Compete14/Compete14.pdf>.

<sup>3</sup> Ibid, 63.

<sup>4</sup> See Barry W. Poulson and Jules Gordon Kaplan, "State Income Taxes and Economic Growth," *Cato Journal* 28, no. 1 (Winter 2008: 53-71). See also William McBride, "What Is the Evidence on Taxes and Growth?" Tax Foundation (December 18, 2012) <http://taxfoundation.org/article/what-evidence-taxes-and-growth>.

See also Arthur Laffer, Stephen Moore and Jonathan Williams, "Policy Matters: How States Can Compete to Win," in *Rich States, Poor States: The American Legislative Exchange Laffer State Economic Competitiveness Index*, 8<sup>th</sup> edition, (2015):30-63.

structure of the particular state and how the burden of each tax applies to households and businesses.

Competition between states and foreign nations for new capital investment is one of the main drivers of tax reform. Capital investment includes construction of buildings, such as factories and offices; purchases of new equipment (for example, laptop computers, biotech instruments and metalworking machines) and purchases of software, (such as business enterprise software or web and e-commerce technologies). Improving the business climate, specifically by raising the return on this sort of capital investment, is one of the keys to remaining competitive and driving economic development.

This is no secret. Across the United States, a number of states have embarked upon various tax reform measures over the past 20 years with the prevailing goal of stimulating capital spending. These reforms include tax and expenditure limitations and targeted tax cuts or preferential treatment for emerging industries. Some have earmarked new taxes for education and transportation with the belief that human capital and infrastructure investment enable growth. The results are mixed.

In meeting the challenge, some states have considered tax swaps — or the substitution of one tax for another.

With 21st century technology driving the restructuring of state economies, the transition to tax reform is difficult but necessary. For example, because of the rise of e-commerce and the decline of bricks-and-mortar retailers, state governments are seeking to tax Internet sales in order to recover “lost” revenues. The increasing use of electric vehicles and hybrids, modest today but expected to rise with environmental concerns, will mean that state governments can no longer rely on per-gallon gasoline taxes to maintain and build highways, roads and bridges. States may turn to miles-traveled metering, higher fees or tolls.

An emerging body of evidence suggests that firms more seriously weigh tax considerations in a global environment where capital is far more mobile than in the past.<sup>5</sup> Firms defer bringing back profits from their multinational subsidiaries because of high U.S. corporate tax rates, thus leaving investment capital out of reach. The imposition of additional taxes at the state level adds to the problem.

---

<sup>5</sup> Richard B. McKenzie and Dwight R. Lee, *Quicksilver Capital: How the Rapid Movement of Wealth Has Changed the World* (New York: The Free Press, 1991.)

The bottom line: States interested in economic growth cannot rely on a 20th century tax system that leans heavily on property taxes and individual and corporate income taxes. States that limit themselves to a light touch on taxes believe justifiably that they will be rewarded with jobs and economic development.

Whatever new instruments of taxation, the policymakers should base policy on five basic principles: revenue-raising ability, neutrality, equity, ease of administration and accountability.<sup>6</sup> Unfortunately, political pressure forces policymakers to ignore the wisdom of public finance economists who advise against both the opaque exemptions and the targeted tax incentives. A good tax system introduces a sense of certainty that engenders business confidence and taxpayer fidelity. Below, we take a closer look at different state and local tax regimes.

## **Income Taxes**

Most states impose individual income taxes. States without them — Alaska, Florida, Nevada, New Hampshire, South Dakota, Texas, Washington and Wyoming — rely on other sources for revenue.<sup>7</sup> Six states have no corporate income tax: Nevada, Ohio, South Dakota, Texas, Washington and Wyoming.

In most states, however, income taxes remain a major source of revenue. Supporters of income taxes — both proportional and progressive — suggest that income taxes are more closely aligned with ability to pay, a longstanding objective of tax policy. Yet income taxes, both individual and corporate, distort decisions to work, save and invest and therefore threaten a state's ability to compete for residents and businesses. By penalizing saving and diminishing incentives to work, the income tax shrinks employment, investment, production, productivity, and future well-being.

Income taxes levied on capital gains fluctuate with the performance of the stock market, which makes such collections less predictable. Sharp stock market downturns often coincide with recessions, and can exacerbate state tax revenue drops during recessions and state specific economic hardships.

Taxpayer exemptions and deductions readily enacted by legislatures continually erode the tax base and place higher burdens on taxpayers that do not qualify for them. Compliance

---

<sup>6</sup> David Brunori, *State Tax Policy: A Political Perspective*, (Washington, D.C.: Urban Institute Press, 2001), 13-29.

<sup>7</sup> (New Hampshire and Tennessee do not tax wage income but tax dividend income instead.)

costs, including time to complete tax forms, and the double taxation of investment income are among the reasons income taxes are less efficient than taxes on consumption.

There can be no principled debate over the question of whether discrimination against savers is per se a negative feature of the income tax. By any standard, discrimination is not only inequitable, but also has negative effects on economic activity. By penalizing saving, the income tax shrinks investment and hence future production, productivity and well-being.

## **Property Taxes**

In West Virginia, business property taxes provide the vast majority of tax revenues for local governments and a relatively small amount of revenue for state government. However, business property taxes can be economically harmful. The imposition of a business property tax leads to a reduction in the after-tax return derived from capital investments and creates a powerful disincentive for business owners inside the state to invest in their enterprises. Investment projects that would have been profitable enough to justify the investment become less profitable on an after-tax basis. Capital investment in structures, as well as the employment and output decreases.

Relative to other states, West Virginia taxes residential property lightly. Residential property taxes have no relationship between income-producing activity such as earnings from either labor or capital. Therefore, the effect of residential property taxes is not as traceable to capital or labor as other taxes. Partially due to this disconnect between earnings and the tax, residential property taxes remain one of the most unpopular taxes. Property taxes bear no relationship to income or the ability to pay and, as a result, they can be a hard burden on citizens on fixed incomes. Moreover, property taxes are subject to inflation that can drive up the assessed value of a home independent of the owner's own earnings growth. However, they are easy to collect because the asset, namely a home or commercial structure, is difficult to shield from tax assessors.

## Consumption Taxes

The West Virginia sales tax is the second largest source of tax revenue, behind the state income tax. A sales or consumption tax lacks some of the negative features of income and business property taxes. Consumption taxes do not hinder savings and investment, which are crucial to building a state's capital stock and growth.<sup>8</sup>

Moreover, income and consumption taxes differ with respect to production and consumption relative to neighboring taxing jurisdictions, especially at the state level. An income tax that falls on capital and labor raises the cost of production for goods and services regardless of the location of the final sales: in state or out of state. The higher cost reduces investment, employment and, ultimately, economic growth.

However, a consumption tax only taxes goods and services sold within the state's borders. Therefore, goods and services that are produced in state and sold out-of-state are free of taxation, making them more competitive on national markets. By freeing labor and capital from taxation, a consumption tax provides a powerful incentive for firms to locate production in the state irrespective of where the final sales take place. In other words, a consumption tax rewards exports and penalizes imports. The higher levels of in-state production boost investment, employment and economic growth at the expense of current consumption of goods and services.

## WV-STAMP Model

The Beacon Hill Institute's WV-STAMP is a dynamic model that captures the effects of tax rate changes on economic activity. Using WV-STAMP, we provide estimates of the effects of changes in state tax law on job creation, investment, real disposable income and state tax revenues. WV-STAMP produces dynamic revenue estimates that capture the effect of the change in economic activity on changes in tax revenues, unlike static revenue estimates that do not.

---

<sup>8</sup> Alan J. Auerbach, "The Choice between Income and Consumption Taxes: A Primer," *NBER Working Paper* 12307. National Bureau of Economic Research (June 2006), 23, <http://www.nber.org/papers/w12307>. Later published in Auerbach, A. and D. Shaviro (eds.) *Institutional Foundations of Public Finance: Economic and Legal Perspectives*. Harvard University Press, 2009.

Static estimates assume that there is no change in underlying economic activity in response to a change in tax law. For example, a static estimate of a cut in the sales tax, say from 5% to 4%, would expect revenues to fall by 20%.

A dynamic estimate would show a smaller drop in revenue because it would capture the positive effects on the tax base of freeing up more money through tax cuts and growing the economy. In other words, as a result of lower taxes, businesses would have more money to make profitable investments in West Virginia, thus increasing employment, incomes, retail sales and, in turn, tax collections. One of the principal purposes of STAMP is to capture such dynamic effects.

While the increased economic activity would mitigate the lost revenue from the tax, it would not replace all of the lost revenue from the tax cuts. In other words, the STAMP model would not show that the tax cuts paid for themselves.<sup>9</sup>

Generally, the WV-STAMP model divides taxes into numerous categories, including so-called “factor taxes” on factors of production (such as labor and capital), sales and excise taxes, or household taxes (such as the residential property tax and license fees) and income taxes. The model accounts for how different tax mixes and levels influence each area of economic activity.

The Beacon Hill Institute entered the changes for each option into WV-STAMP and compared the results with the baseline situation to produce our estimate of the fiscal and economic impact of such tax changes. We report the cumulative changes to the data point that would occur in 2017 under a tax change against the baseline data in 2017 in the absence of the tax change. For example, if the West Virginia economy were to create 10,000 jobs in 2017 without the tax change and we report that the tax change would create 10,000 jobs, then the economy would create 20,000 in 2017 under the tax change.

BHI modeled a variety of potential tax changes. The first category involves abolishing sales, corporate, severance and property taxes and cuts to the personal income tax. We also examined revenue-neutral scenarios wherein cuts to individual and corporate income taxes and to both residential and business property taxes are offset by broadening the sales tax base.

## Results

---

<sup>9</sup> A further synopsis of the WV-STAMP methodology is available at [www.beaconhill.org](http://www.beaconhill.org).

Tax changes influence economic decisions, meaning that reductions to state tax rates will have wide reaching effects on how businesses operate and people live in the state of West Virginia. Table 1 shows the economic and fiscal effects of five individual WV-STAMP simulations abolishing individual state level taxes. The top of the table displays the economic results of the simulation and the bottom displays the effects on state and local government revenue collections.

Abolishing the sales and business property taxes would provide the largest impact on private employment, increasing jobs by 14,060 and 20,225 respectively. Abolishing personal property taxes would create 7,050 jobs, but abolishing the corporate income tax and severance tax would provide a modest boost to private employment.

The results are not entirely unexpected. Of the five taxes considered, the sales and business property taxes generate the largest amounts of revenue and therefore return the most money to the private sector. Moreover, corporate income and severance taxes fall more heavily on investment and large firms can avoid the higher tax bills by locating their headquarters outside West Virginia.

All of the tax cuts result in the loss of public sector jobs. The WV-STAMP model assumes that all state and local governments must balance their budgets and thus, revenue losses cause some level of public sector job losses. The abolition of the business and personal property taxes cause the largest losses of public sector jobs because local governments levy these taxes, and local governments tend to be more labor intensive relative to other levels of government. Local governments employ scores of schoolteachers, firefighters, police officers, support staff and the departments of public works.

Abolishing the business property, corporate income and sales tax would boost investment by the largest amounts, by \$895 million, \$115 million and \$104 million respectfully. Again, this is both a function of the amount of revenue returned to the private sector and the target of the tax as noted above. Abolishing the severance and personal property taxes would increase investment slightly: by \$32 million and \$3 million respectfully.

Price adjusted, or real household disposable income would increase by \$1,260 million by eliminating the business property tax; and increase by \$1,210 million by eliminating the sales tax. Eliminating the other taxes would increase real disposable income between \$124 million and \$400 million.

The bottom portion of Table 1 displays the change in state and local tax revenues that would result from the tax changes. In each tax elimination scenario, the government forgoes all tax revenue for that specific tax. However, the lost revenue would be returned to the private economy and, in turn, boost tax and other state and local tax revenues, providing the dynamic revenue effect outlined the previous section. The level of dynamic revenue surge links directly to the economic effect each tax change has on the state economy, with the sales and businesses property tax eliminations leading the way. The largest revenue increases come in the form of the income tax and other taxes and fees.

**Table 1: Results of Abolishing Certain West Virginia Taxes by 2017**

	Sales Tax	Corporate income Tax	Severance tax	Business property taxes	Personal property taxes
<b>Economic Effects</b>					
Private employment (jobs)	14,060	620	1,780	20,225	7,050
Government employment (jobs)	(6,470)	(250)	(1,240)	(18,760)	(7,310)
Investment (\$ millions)	104	115	32	895	3
Real disposable income(\$ millions)	1,210	124	190	1,260	400
<b>Fiscal Effects (\$ millions)</b>					
Personal Income Tax	48	12	15	91	9
Corporate Income Tax	6	(150)	2	24	1
Sales Tax	(1,270)	3	5	29	3
Severance Tax	1	1	(360)	6	1
Other State Taxes	93	13	20	126	17
<b>Total</b>	<b>(1,122)</b>	<b>(121)</b>	<b>(318)</b>	<b>276</b>	<b>31</b>
Local Taxes	57	25	21	(1,267)	(430)
<b>Total Tax Change</b>	<b>(1,065)</b>	<b>(96)</b>	<b>(297)</b>	<b>(991)</b>	<b>(399)</b>

The next set of simulations involve tax swaps either between different taxes or exchanging tax rate cuts for the elimination of exemptions. BHI simulated these tax changes to be revenue neutral specific to taxes that are being changed. In other words, we change the taxes so that the revenue for the targeted taxes changes very little, but lets the revenues for other taxes change. Table 2 displays the results.

**Table 2: Results from Tax Swaps the West Virginia STAMP Model**

	<b>Sales Tax rate cut to 2.265% percent eliminate exemptions</b>	<b>Severance Tax cut to 3.24% eliminate exemptions</b>	<b>Sales and Property Tax Swap</b>	<b>Sales Tax Expansion and Income Tax Cuts</b>
<b>Economic Effects</b>				
Private employment (jobs)	(248)	807	2,725	4,600
Government employment (jobs)	(723)	(565)	Na	Na
Investment (\$ millions)	(16)	15	381	(110)
Real disposable income(\$ millions)	(404)	87	111	63
<b>Fiscal Effects (\$ millions)</b>				
Personal Income Tax	(3.6)	Na	24	(942)
Corporate Income Tax	1	Na	6	(2)
Sales Tax	2.1	Na	536	970
Severance Tax	1	Na	2	3
Other State Taxes	(30.6)	Na	20	(19)
Corporate Property Taxes	Na	Na	-590	Na
<b>Total</b>	<b>(30.1)</b>	<b>Na</b>	<b>(2)</b>	<b>10</b>
Local Taxes	2.2	Na	1	(21)
<b>Total Tax Change</b>	<b>(27.9)</b>	<b>NA</b>	<b>2</b>	<b>(11)</b>

The economic effects of these tax changes are much weaker than the elimination of taxes above. This is no surprise since these tax changes do not return large amounts of money to the private sector. Rather, these tax changes generally reallocate resources from one sector of the economy to another. For example, the sales tax change cuts the sales tax on the retail sector, but applies the reduced sales tax rate to sectors that currently do not pay sales tax, such as healthcare.

The elimination of the sales tax exemptions allows a rate cut from 6 percent to 2.265 percent without the loss of sales tax revenue. However, this change fails to produce any real difference to the state economy, and, instead, produces small employment losses and a modest reduction in real disposable income.

The severance tax swap provides a modest boost to real disposable income and investment. Again, one would not expect much change to economic activity because the tax change shifts the tax burden within one industry, even if it is an important one to the state.

Eliminating the personal property tax and raising the sales tax to make up for the lost revenue provides one of the larger boosts to the state economy. The tax change increases

employment by 2,725 jobs, investment by \$381 million and real disposable income by \$111 million.

The last simulation would expand the sales tax base to include the service sectors (excluding healthcare) in exchange for income tax cuts. The sales tax base would increase by \$18 billion dollars while eliminating the bottom four income tax brackets reducing the top tax bracket to 5.85 percent.

The tax change increases employment by 4,600 jobs, investment would fall by \$110 million and real disposable income would increase by \$63 million. Investment would fall because households in lower tax brackets earn almost all of their income from labor and not capital. As a result, the income tax cut lowers the cost of labor relative to capital, and, thus, businesses substitute labor for capital investment.

The next set of simulations involve cuts to the state income tax and a \$1 per pack increase in the state cigarette tax. Table 3 displays the results.

The cigarette tax increase would produce modest damage to the state economy. The state would lose 1,725 private sector jobs, while the increase in state revenues would allow for hiring of 740 new public employees. Investment would fall by \$7 million and households would see their real incomes fall by \$226 million. Under this scenario, state revenue collections would increase by \$161 million, but local governments would see revenues drop of \$7 million.

The income tax changes would provide a boost to the West Virginia economy. Eliminating the lowest four income tax brackets and cutting the top bracket to 4.5 percent from 6.5 percent would provide the largest gains. The tax cut would increase private employment by 14,620 jobs, while the revenue loss would see the elimination of 3,770 public sector jobs. Leaving more money in the hands of West Virginia's households, combined with the increase in employment, would boost real disposable income by \$1,109 million. The tax cut would also increase investment by \$17 million. The state government would lose \$902 million in tax revenue, but local governments would experience an increase of \$12 million in revenue collections.

The final tax change simulation would see the rate for all five income tax brackets cut by two percentage points. The tax cut would increase private sector employment by 4,050 jobs and the state government would lose 930 jobs. Real disposable income would increase by \$300 million

and investment would rise by \$4 million. The state would lose \$244 million in tax revenues, but local governments would gain \$6 million.

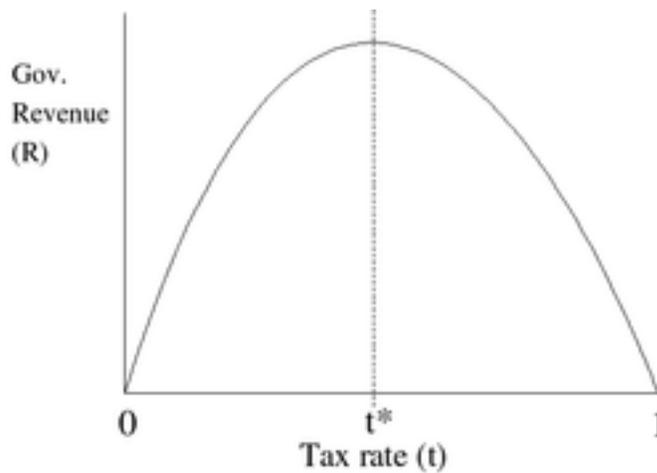
**Table 3: Tax Change Results from the West Virginia STAMP Model for 2020**

<b>Economic Effects</b>	<b>Cigarette Tax Increase by \$1</b>	<b>Eliminate personal income tax except highest bracket reduced to 4.5%</b>	<b>Two-point personal income tax cut</b>
Private employment (jobs)	(1,725)	14,620	4,050
Government employment (jobs)	740	(3,770)	(930)
Investment (\$ millions)	(7)	17	4
Real disposable income(\$ millions)	(226)	1,109	300
<b>Fiscal Effects (\$ millions)</b>			
Personal Income Tax	(7)	(988)	(270)
Corporate Income Tax	0	1	3
Cigarette Tax	184	1	2
Sales Tax	(3)	10	1
Severance Tax	0	4	1
Other State Taxes	(13)	62	19
Corporate Property Taxes	0	8	na
<b>State Total</b>	<b>161</b>	<b>(902)</b>	<b>(244)</b>
Local Taxes	(7)	12	6
<b>Total Tax Changes</b>	<b>154</b>	<b>(892)</b>	<b>(245)</b>

As noted, WV-STAMP provides dynamic revenue estimates that recognize the effect changes in tax rates have on incentives to work, spend and save. The Laffer Curve (Figure 1) best explains this concept.

The Laffer Curve itself simply illustrates the tradeoff between tax rates and the total tax revenues actually collected by the government. The curve traces the relationship between tax revenues and tax rates from zero to one-hundred percent. Both tax rates of zero and 100 percent (represented by the number 1 in the graphic) would collect no tax revenue. The zero rate would produce no revenue due to pure arithmetic, as zero multiplied by any tax base will result in a tax liability of zero. The 100 percent rate would produce no revenue because the tax would confiscate one-hundred percent of earnings and no taxpayer would be willing to engage in an activity in which the after tax earnings would be zero.

Figure 1: The Laffer Curve



Any tax rate between zero and 100 percent would likely produce positive tax revenue collections. As the tax rate rises above zero, tax revenue collections increase, but at a certain point the tax rate becomes so high that the incentives to earn income in that activity cause tax revenues to drop as the tax rate rises. Revenues continue to drop until the rate hits one-hundred percent and revenues fall to zero again.<sup>10</sup>

No one knows at what rate would revenues begin to decline, because rarely do governments enact such high tax rates and when they do, they are often accompanied by an array of deductions and exemptions that lower the actual tax rate substantially. State cigarette taxes provide recent examples.

In FY 2005, New Jersey raised its cigarette tax from \$2.05 to \$2.40 per pack, or by 17%, however, revenue increased by only 3% and was flat in FY 2006. Then in FY 2007, the state raised its cigarette tax one again, by 7% to \$2.575 per pack, and revenue subsequently fell by 2%.

Rhode Island experienced a similar revenue effect when in FY 2005 it raised the cigarette tax by 44% and total revenue only increased by only 14.4%. Moreover, in the two fiscal years following the tax increase, total cigarette tax revenue fell - by 7.3% in FY 2006 and 4.7% in FY 2007, and was expected to fall by another 6.6% in FY 2008. The experiences of these states serve as a cautionary tale to West Virginia and their own cigarette tax increases.

---

<sup>10</sup> The Laffer Center at the Pacific Research Institute, The Laffer Curve, <http://www.laffercenter.com/the-laffer-center-2/the-laffer-curve/>.

For both income tax cut simulations, the state experiences a loss of income tax revenue, as we would expect. This indicates that West Virginia levies the income tax at a rate that is below the revenue maximization point on the Laffer Curve, and thus rate cuts do not produce increases in tax revenue. We suspect that West Virginia governments levy taxes at rates that are well below the level at which tax cuts would produce tax revenue gains and tax increases would produce tax revenue decreases.

## Conclusion

The purpose of any sound state tax system is to raise the revenue needed to provide public goods such as education and infrastructure. However, state governments face the constraints highlighted by the Laffer Curve. The proper mix of taxes would find revenues in West Virginia on the left side of the Laffer Curve where the tax rate maximizes both revenue and economic growth.

Like many other states, West Virginia must strongly consider the behavioral effects of tax increases and tax cuts. Static estimates assume that there is no change in underlying economic activity in response to a change in tax law. For example, a static estimate of a cut in the sales tax, say from 5% to 4%, would expect revenues to fall by 20%. However, taxpayers, when faced with higher or lower taxes, make tradeoffs between work and leisure. This decision extends to all the agents in an economy. Thus, the amount of revenue collected by state government when it raises taxes is often less than expected and the amount of revenue when it cuts taxes is often more than the static loss predicted.

The model presented here seeks to explain the consequences of several tax regimes including cuts to personal income and property taxes and tax swaps. WV-STAMP attempts to capture the results of several proposed scenarios.

A shift toward a tax mix that favors consumption taxes would improve tax efficiency since unlike personal income taxes, sales taxes do not diminish incentives to save and invest. Expanding the sales tax base (by eliminating exceptions save for health care) while cutting the personal income tax would be among the most optimal proposals. Here, the sales tax base would increase by \$18 billion dollars while eliminating the bottom four income tax brackets reducing the top tax bracket to 5.85 percent. For low-income taxpayers, the elimination of the bottom four tax brackets would soften the regressivity of an expanded sales tax.

The tax change increases employment by 4,600 jobs, investment would fall by \$110 million and real disposable income would increase by \$63 million. The fall in investment indicates that employers would substitute labor (which workers would now be more willing to offer) for capital stock (machines, buildings, etc.). In other words, labor becomes more attractive. Moreover, the economic gains come at a minimal loss of state and local government tax revenue.

## About the Authors

David G. Tuerck, PhD, is the Executive Director of the Beacon Hill Institute for Public Policy Research at Suffolk University where he is also a Professor of Economics. He has testified before Congress on tax, regulatory and labor issues. He has also published over 100 opinion editorials on state and national tax issues. He holds a Ph.D. in economics from the University of Virginia. He is the author of *Macroeconomics: Integrating Theory, Policy, and Practice for a New Era* (Business Expert Press).

Paul Bachman, MSEP, is the Director of Research at BHI. He manages the Institute's research projects, including its STAMP model and other research programs. He has published studies on state and national tax policy and on state labor policy. He also produces the Institute's state revenue forecasts for the Massachusetts legislature. A graduate of St. Joseph's University in Philadelphia, he also earned a Master of Science in International Economics degree from Suffolk University.

Frank Conte, MSPA, is the Director of Communications and Information Systems. He is also the project manager for the Institute's State Competitiveness Report and Index. He is a graduate of Suffolk University and holds a Master of Science in Public Affairs from the University of Massachusetts-Boston.



**THE BEACON HILL INSTITUTE  
FOR PUBLIC POLICY RESEARCH**

**8 Ashburton Place**

**Boston, MA 02108**

**Phone: 617-573-8750 Fax: 617-994-4279**

**bhi@beaconhill.org**

**<http://www.beaconhill.org>**



**CARDINAL INSTITUTE FOR WV POLICY**

**PO Box 11495**

**Charleston, WV 25339**

**Phone: 304-561-7634**

**<http://www.cardinalinstitute.com>**