# The Fiscal and Economic Impact of a Margin Tax on Nevada

Levy would kill thousands of jobs, reduce residents' disposable income





prepared by The Beacon Hill Institute at Suffolk University for

The Nevada Policy Research Institute

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## **Executive Summary**

This November, Nevada voters will be asked to approve a ballot measure sponsored by the Nevada State Education Association, which would establish a corporate tax known as the "margin tax," a variant of a gross receipts tax. The 2 percent tax would be levied against firms taking in more than \$1 million in gross receipts during the taxable year, even if unprofitable, and is expected to raise approximately \$800 million in annual revenue. As proposed, the 25-page statutory measure directs businesses to select from among three types of deductions. However, those deductions introduce complexity into what could be a simple and transparent state tax code. The cost of complying with the margin tax will disproportionately burden small business.

Standard economic theory holds that households and firms change their investment and consumption behavior in response to taxation. This change in behavior creates secondary effects that can increase the cost of taxation over and above the amount of taxes collected—changing the current economic equilibrium by altering the quantity and prices of goods and services being offered and, consequently, producing losses to general community welfare.

In an effort to better understand the effects of a margin tax on the Nevada economy, the Beacon Hill Institute at Suffolk University (BHI) was commissioned by the Nevada Policy Research Institute to develop a Nevada State Tax Analysis Modeling Program (NV-STAMP®) to identify exactly how tax law changes can be expected to alter the decision-making of economic actors. A dynamic general-equilibrium model, such as STAMP, accounts for these changes and their highly complex impact on key economic indicators.

Our major findings show that the margin tax will:

- lower private-sector employment by 3,610 full-time-equivalent positions;
- lower total employment by 1,640 full-time equivalent positions on net;
- reduce real disposable income by \$240 million annually; and
- decrease investment by \$7.1 million annually.

If voters adopt the measure, Nevada will join Texas as one of two states levying a margin tax on businesses. A margin tax is not an effective way to foster and sustain economic growth. Voters should be aware of the trade-offs that must be made in adopting a new tax, including the prospect of the tax endangering Nevada's economic competitiveness.

Sean Whaley, "New Margin Tax Initiative Petition Pushed By Teachers Union Challenged In Court," Nevada News Bureau, <a href="http://www.nevadanewsbureau.com/tag/margin-tax/#sthash.l8w9g1y3.dpuf">http://www.nevadanewsbureau.com/tag/margin-tax/#sthash.l8w9g1y3.dpuf</a>, (August 22, 2012).

## **Introduction: The Fiscal Policy Test**

In November 2014, Nevada voters will be asked to approve a ballot measure sponsored by the Nevada State Education Association (NSEA) to establish a business tax known as the "margin tax," a variant of a gross receipts tax.<sup>2</sup> The tax would be levied at 2 percent of gross revenues, minus deductions, on firms receiving more than \$1 million in gross receipts annually and is expected by NSEA to raise \$800 million annually for education.<sup>3</sup>

Nevada is one of few states that levies neither a personal income tax nor a corporate income tax. While regulatory barriers to business formation can be substantial in Nevada, the state's fiscal policy mix has earned praise. The state currently enjoys a favorable second-place ranking for economic performance and 13th-place ranking for economic outlook on the ALEC-Laffer Economic Competitiveness Index.

On the other hand, advocates say that public education needs additional revenue. Yet, it is unknown whether additional taxes generated through a margin tax would actually increase K-12 education spending.<sup>6</sup> Still, it is worth noting that Nevada already outspends a majority of its neighboring states on a per-pupil basis for education even though Nevada falls short of those states in test scores and graduation rates.<sup>7</sup> This reality underscores the virtually total lack of correlation nationwide between per-pupil spending levels and student achievement,<sup>8</sup> suggesting that governance structures and policies are the most significant factors in determining student outcomes.

<sup>2</sup> Nevada State Education Association, "TFI: Predictable, Dedicated K-12 Revenue," <a href="http://www.nsea-nv.org/home/500.htm">http://www.nsea-nv.org/home/500.htm</a>.

The Education Initiative, Exhibit C, submitted to the Assembly Committee: Taxation Joint Meeting with Senate Committee on Revenue & Economic Development, Nevada State Legislature, "The Education Initiative: Frequently Asked Questions about the Margin Tax," (March 5, 2013).

<sup>4</sup> Geoffrey Lawrence, "The Path to Sustainable Prosperity: Removing the Obstacles Facing Nevada's Entrepreneurs," Nevada Policy Research Institute, (January 2013), <a href="http://www.npri.org/issues/publication/the-path-to-sustainable-prosperity">http://www.npri.org/issues/publication/the-path-to-sustainable-prosperity</a>.

<sup>5</sup> Arthur B. Laffer, Stephen Moore and Jonathan Williams, American Legislative Exchange Council, Rich States, Poor States: ALEC-Laffer State Economic Competitiveness Index, 6th Edition, (Arlington, VA: 2013), <a href="http://www.alec.org/publications/rich-states-poor-states/">http://www.alec.org/publications/rich-states-poor-states/</a>.

<sup>6</sup> Geoffrey Lawrence, "Facts and Fiction About the Unions' Tax Initiative," Nevada Policy Research Institute, (June 2012), <a href="http://www.npri.org/publications/facts-and-fiction-about-the-unions-tax-initiative">http://www.npri.org/publications/facts-and-fiction-about-the-unions-tax-initiative</a>.

Geoffrey Lawrence, "Neighboring States Upstage Nevada Education," Nevada Policy Research Institute, (September 2011), <a href="http://www.npri.org/publications/neighboring-states-upstage-nevada-education">http://www.npri.org/publications/neighboring-states-upstage-nevada-education</a>.

<sup>8</sup> See, most recently, Andrew Coulson, State Education Trends, (Washington D.C; Cato Institute, 2014, p. 4) <a href="http://object.cato.org/sites/cato.org/files/pubs/pdf/pa746.pdf">http://object.cato.org/sites/cato.org/files/pubs/pdf/pa746.pdf</a>.

Irrespective of these issues, however, the margin tax violates several tenets of sound tax policy including equity, transparency and efficient administration.

Question 3 — or the 'Education Initiative', as as margin-tax advocates have named the ballot measure — would impose an extensive array of rules and guidelines establishing the tax base. For example, the tax is imposed if a business realizes more than \$1 million in revenue, regardless of whether it is profitable. Firms can take one of three deductions against total revenues. They are allowed to::

- deduct 30 percent of all revenues; or
- deduct the cost of goods sold; or
- deduct employee compensation up to a maximum of \$300,000 per employee.

Other deductions include accounting for the payroll tax and allowances for deductions of gaming taxes. If Texas history is any guide, more deductions will be added through legislative action.

Sound policy requires that any tax meet the test of five principles: the provision of appropriate revenues, overall neutrality, equity, efficient administration and accountability.<sup>10</sup>

**Revenues.** The margin tax would raise significant revenues for state expenditures and the revenues would be relatively less volatile through the economic cycle than those resulting from a capital gains tax — on the surface satisfying the principle of appropriateness. However, taxpayers (i.e. small businesses) change their behavior in response to changes in tax policy, and so there is no guarantee that the margin tax will provide the amount of revenue supporters suggest. A comparison to the existing Texas franchise tax suggests that a margin tax in Nevada — which would be twice as high as the tax in Texas — would raise less revenue than expected overall. Nonetheless, in percentage terms the Texas franchise tax has remained at approximately 11 percent of total state taxes in recent years.<sup>11</sup>

**Neutrality.** Economists and tax policy analysts strongly agree that taxes should create as little distortion in the marketplace as possible. An economic agent's decision to buy or sell a certain product or service should not be determined by the tax code. In other words, taxes should strive for neutrality. The proposed margin tax, however, fails this criterion because it distorts economic behavior.

<sup>9</sup> Nevada Secretary of State, 2014 Initiatives, Statewide Statutory Measure, "The Education Initiative," <a href="http://nvsos.gov/Modules/ShowDocument.aspx?documentid=2425">http://nvsos.gov/Modules/ShowDocument.aspx?documentid=2425</a>.

<sup>10</sup> David Brunori, State Tax Policy, (Washington D.C; Urban Institute Press, 2001): 13-29.

<sup>11</sup> Texas Taxpayers and Research Association, "Understanding the Texas Franchise – or "Margin" Tax," (October 2011), <a href="http://www.ttara.org/files/document/file-4ea5bda9239ef.pdf">http://www.ttara.org/files/document/file-4ea5bda9239ef.pdf</a>.

The tax base underlying a margin tax is overly broad. Because the tax is levied at every point along the supply chain, all of the parts that go into the manufacture of a given product become subject to the tax along with the final product itself, with producers at later stages in the supply chain forced to pay a tax upon a tax. In this way, the margin tax is similar to a value added tax because the effective tax rate will be higher for more complex goods. This pyramiding effect can distort consumers' purchasing decisions, which in turn distorts the planning process for entrepreneurs and changes business investment and labor usage patterns.

In addition, a margin tax inevitably raises questions about tax incidence — that is to say, who ultimately pays the tax. As with all business taxes, the burden of a margin tax will fall primarily on consumers and workers, to varying degrees.

Businesses would face tax liabilities even if they fail to generate profits. While the federal income tax applies a progressive rate against firm profits, the margin tax lowers the profits to be taxed in the first place. Indeed, for firms operating with very small margins, the margin tax can easily destroy a firm's profitability altogether and move it toward insolvency.<sup>13</sup> For firms already operating at a financial loss, the margin tax will exacerbate that loss and hasten the day of potential bankruptcy.

**Equity.** Equity is a major goal of tax policy. Although subjective and often elusive, the concept of fairness is crucial. Here the margin tax fails on two key measures: horizontal and vertical equity. Because of its threshold based on revenues, the Nevada margin tax ignores a firm's ability to pay — the vertical criterion. Even a firm earning 1 million dollars in revenue may realize minimal or no profits if its costs are high or if the company had a down year. <sup>14</sup> Thus, firms that incur losses or show small profits are treated the same as firms earning high profits.

The far-reaching deductions also pose a threat to horizontal equity. Taxpayers with similar levels of profitability will be assessed for taxes at dramatically different rates, because the structure of deductions will be more beneficial to some industries than others. Firms that are highly labor- or capital-intensive can evade much of the margin tax liability by deducting for labor compensation or for the "cost of goods sold," respectively. Firms or industries that employ a more proportional mix of labor and capital — man and machine — wind up shouldering a much higher margin-tax liability than those that are heavily labor- or capital-intensive. Texas legislative staff

<sup>12</sup> John Mikesell, "Gross Receipts Taxes in State Government Finances: A Review of Their History and Performance," The Tax Foundation, Background Paper 53 (January 31, 2007), <a href="https://taxfoundation.org/article/gross-receipts-taxes-bad-policy-prescription-states">https://taxfoundation.org/article/gross-receipts-taxes-bad-policy-prescription-states</a>.

<sup>13</sup> Applied Analysis, "The Fiscal and Economic Impacts of Nevada Ballot Question #3: A Preliminary Review and Analysis," (February 2014). <a href="http://www.stopthemargintax.com/wp-content/">http://www.stopthemargintax.com/wp-content/</a>. <a href="http://www.stopthemargintax.com/wp-content/">uploads/2014/02/Ballot-Question-3-Impact-Assessment-022614.pdf</a>

<sup>14</sup> Applied Analysis, 3.

has shown that the margin tax in that state disproportionately burdens agriculture, mining and information technology firms, while construction firms, law firms and others bear a systematically smaller margin-tax liability.<sup>15</sup>

Administrative efficiency. Taxes should be simple and easy to administer. More than any other criteria, the margin tax fails the test of administrative efficiency. The margin tax, with its bevy of deductions, complex formulas and definitions, will impose high compliance costs on tax filers, who will face difficulty calculating their liability. Some analysts have suggested that firms would need to maintain two separate accounting statements in order to comply with Nevada's state tax code, compared to the federal tax code, a costly imposition for small companies. Many of these tax questions are not answered in the union's proposed 25-page statutory text and are deferred instead to the state Department of Taxation to settle through the rule-making process.

In Texas, small businesses have complained that they are disproportionately burdened by compliance costs associated with the margin tax because their larger competitors already have in-house accounting departments that allow them to more easily navigate the tax. Small businesses, on the other hand, usually must hire outside experts to navigate the tax on their behalf and this proposition can be costly in itself.<sup>17</sup>

Accountability. Finally, accountability is an important principle of tax policy. Taxpayers have a right to know whether the tax law will work as planned. There is no question that the proposal would raise taxes significantly. But constitutional constraints preclude voters from controlling all appropriations directly. So a key measure of accountability is an honest assessment as to whether the legislature is bound by the will of the voters. The reality is that lawmakers can effectively divert the extra funds raised by a margin tax to other programs beginning in year one by offsetting the deposits into the Distributive School Account with a smaller general-fund appropriation into that account. This reality destroys any assurance that margin-tax proceeds will be used for the purpose voters are being told.

<sup>15</sup> Texas Legislature, 79th Legislature, 3rd Called Session, Legislative Budget Board, House Bill 3, Tax/ Fee Equity Note, 2006.

<sup>16</sup> Thomas Mitchell, "How a Margins Tax Hurts Business," Ely Times, (November 1, 2013) <a href="http://www.elynews.com/2013/11/01/margins-tax-hurts-business/">http://www.elynews.com/2013/11/01/margins-tax-hurts-business/</a>.

<sup>17</sup> Joseph Henchman, "Texas Margin Tax Experiment Failing Due to Collection Shortfalls, Perceived Unfairness for Taxing Unprofitable and Small Businesses, and Confusing Rules," The Tax Foundation, Fiscal Fact No. 279 (August 17, 2011), <a href="http://taxfoundation.org/article/texas-margin-tax-experiment-failing-due-collection-shortfalls-perceived-unfairness-taxing#\_ftnref28">http://taxfoundation.org/article/texas-margin-tax-experiment-failing-due-collection-shortfalls-perceived-unfairness-taxing#\_ftnref28</a>.

## The Economic Impact

We have reviewed the margin tax on fiscal policy grounds. What about the economics? How does the margin tax affect the complex interactions between labor and capital, and between firms and households?

Nevada firms will attempt to recover the costs imposed by the margin tax by attempting to raise prices. However, they will face competition from other Nevada firms that are structured to avoid the margin tax and also from out-of-state firms. Firms subject to the tax may not be able to fully raise prices to offset the tax, resulting in the tax burden shifting backward to owners and employees. Subsequently, some employees can be expected to seek higher wages in industries that are not subject to the margin tax. Such distorted incentives will ripple through the state economy.

#### **Estimates and Results**

BHI used its Nevada State Tax Analysis Modeling Program (NV-STAMP®) to determine the effects of a margin tax on the state economy. NV-STAMP is a five-year dynamic Computable General Equilibrium model that simulates the economic effects of changes in taxes, costs (general and sector specific) and other "exogenous" variable changes. As such, it provides a mathematical description of the economic relationships among producers, households, governments and the rest of the world.

NV-STAMP is general in the sense that it takes all the important markets — such as the capital and labor markets — and their flows into account. It is an equilibrium model because it assumes that supply equals demand in every market (goods and services, labor and capital). This equilibrium is achieved by allowing prices to adjust within the model. And it is computable because it can be used to generate numeric solutions to policy and tax changes.

We assume implementation of the margin tax beginning in 2015 and report the results for that year. NV-STAMP allows us to calculate the dynamic revenue effects, as opposed to static effects, under the tax change. This aspect is unique among margin-tax analyses that have been published to date and allows us to provide the most accurate forecast available.

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 tax increase, say

<sup>18</sup> For a general discussion of one possible outcome of a margin or gross receipts tax on a state's economy see "The Deloitte Multistate Tax Center University of Wisconsin–Milwaukee: A Lawmaker's Guide to Non-Income Based Business Franchise Taxes," (2007):24. <a href="http://www4.uwm.edu/business/research/upload/TaxGuide07wCover.pdf">http://www4.uwm.edu/business/research/upload/TaxGuide07wCover.pdf</a>.

<sup>19</sup> For a description about the STAMP model see <a href="http://www.beaconhill.org/STAMP">http://www.beaconhill.org/STAMP</a> Web Brochure/STAMP HowSTAMPworks.html.

from 1 percent to 2 percent, would cause revenues to double. A dynamic estimate would show a smaller increase in revenue because it would capture the negative effect on the tax base of the higher rate. The creation of a margin tax would result in fewer individuals deciding to invest in starting or expanding businesses in Nevada, thus decreasing investment and employment, incomes and retail sales. This decline, in turn, drives sales, property and other tax collections lower. One of the principal purposes of STAMP is to capture such dynamic effects.

Table 1 shows that the creation of a margin tax will have negative effects on Nevada's economy.

Table 1: Economic Results (2013 \$)

<b>Economic Indicators</b>	(2015)	(2018)
Private Employment (jobs)	(3,610)	(3,670)
Public Employment (jobs)	1,970	2,115
Net Employment (jobs)	(1,640)	(1,555)
Investment (\$ million)	(7.1)	(7.2)
Real Disposable Income (\$ million)	(240)	(245)

The state can expect to see 3,610 fewer private-sector jobs in 2015 due to the distortionary impact of higher tax rates. This amount would increase to 3,670, compared to a baseline of no margin tax, by 2018. It is important to note that the employment impact is a net private employment change. Some jobs will be created in industries that are relatively less affected by the margin tax. For example, a firm that is already labor-intensive might choose to accelerate this intensiveness by hiring more workers and procuring less machinery in order to maximize its labor-cost deduction under a margin tax. These decisions will partially offset the job loss in firms that are not as well structured to avoid a margin-tax liability.

In addition, the increase in state revenue will lead to the creation of 1,970 new public sector jobs. On net, then, state employment will decline by 1,640 full-time equivalent positions as a result of the margin tax.

As a general-equilibrium model, NV-STAMP calculates the overall change in employment while recognizing that the tax impacts each firm and worker differently. As a result, the gross turnover of jobs may be much more pronounced. Because the model assumes that markets will reach equilibrium, it implies that some workers would agree to accept lower real wages in order to maintain employment, while others will seek out employment in alternative industries with better prospects for wage growth.

For these reasons, the projected decline of \$240 million annually in real disposable income provides additional clarification on the full impact that a margin tax

would levy on the labor market. This drop in real disposable income is due to a combination of fewer workers earning income, some workers who remain employed earning reduced wages, and a higher cost of goods due to part of the margin tax being passed along to consumers, eroding their purchasing power.

The reduced profit potential for business in Nevada will also cause investment to decrease by \$7.1 million in 2015. It must be recognized that capital is more easily mobile than labor and this mobility facilitates intense competition for capital on a global scale. The tax change will reduce returns to capital in the state, so capital will flow out of Nevada toward destinations where it can achieve higher returns. By 2018, investment in Nevada will be \$7.2 million less than if the margin tax had not been implemented. This exodus of capital poses additional risks for Nevada in the long run, as labor productivity and, hence, wages are tied to the concentration and availability of capital.

Table 2 reviews the effect of the margin tax on state and local revenue. The NV-STAMP model projects the margin tax to produce \$862.5 million in the first full year of implementation. Nevada's economy would continue to grow, although not as quickly as in the baseline case, and this economic growth would cause margin-tax revenues to swell to a billion dollars by 2018. New revenues from a margin tax would be partially offset, however, by a reduction in revenues accruing to existing tax instruments because of the depressing effect the margin tax exerts on economic activity. Therefore, the net increase in state tax revenue, compared to a baseline of no tax policy change, would be \$851.9 million in 2015.

Table 2: Fiscal Change (2013 \$ million)

State Taxes	2015	2018
Margin tax	862.5	938.0
Sales and use tax	(0.9)	(1.0)
Business taxes and licenses	(2.6)	(2.7)
Other sales taxes *	(4.5)	(4.6)
Unemployment compensation	(1.9)	(2.0)
Other taxes and fees	(0.5)	(0.5)
State Total	851.9	927.1
Local Taxes		
Business property	(1.3)	(1.4)
Other taxes and fees	(7.2)	(7.5)
Local Total	(8.5)	(8.9)
Total Revenue Effect	843.4	918.2

<sup>\*</sup> Local School Support Tax, Basic City-County Relief Tax, Supplemental City-County Relief Tax

Local governments would see a net decrease in revenues as a result of shrinking tax bases induced by the margin tax. Overall, local governments can expect to take in \$8.5 million less. The total projected annual net revenue gain for state and local governments combined, therefore, is \$843.4 million in 2015.

#### Conclusion

Question 3 is an ambitious effort to impose a margin tax on Nevada business to fund education. However, the proposed margin tax would diminish economic activity and place Nevada's above-average long-term competitiveness at risk. Nevada has earned a strong reputation for its business-friendly tax code, even though its regulatory environment has warranted some criticism. A margin tax would put this reputation at risk.

In terms of overall state tax policy, a margin tax's alleged benefits are dubious. Such a tax fails the tests of efficiency, equity, transparency and administrative simplicity. The customized NV-STAMP model finds that the margin tax would lower private-sector employment by 3,610 full-time positions; reduce real disposable income by \$240 million, and decrease investment by \$7.1 million in 2015. These losses would incur because any tax has identifiable effects that cascade through a state's economy.

Public education clearly contributes to a state's ability to promote economic growth by enhancing human capital. But more spending does not necessarily guarantee a desired educational outcome. Nevada already spends a substantial sum, and there is no significant documented relationship between increased spending and student performance.<sup>20</sup> Increasing education spending of the magnitude desired by proponents of a margin tax requires a serious trade-off with economic efficiency. Voters should seriously weigh the implications on Nevada's recovering private sector in considering the measure.

<sup>20</sup> Eric A. Hanusek, Paul E. Peterson and Ludger Woessmann, *Endangering Prosperity: A Global View of the American School*, (Washington D.C.: Brookings Institution, 2013):13-15.

# Methodology

To identify the economic effects of the tax discounts and understand how they operate through a state's economy, BHI applied its NV-STAMP® (State Tax Analysis Modeling Program) model.<sup>21</sup> STAMP is a five-year dynamic CGE (computable general equilibrium) model that has been programmed to simulate changes in taxes, costs (general and sector specific) and other economic inputs. As such, it provides a mathematical description of the economic relationships among producers, households, governments and the rest of the world.<sup>22</sup>

A CGE tax model is a computerized method of accounting for the economic effects of tax policy changes. A CGE model is specified in terms of supply and demand for each economic variable included in the model, where the quantity supplied or demanded of each variable depends on the price of each variable. Tax policy changes are shown to affect economic activity through their effects on the prices of outputs and of the factors of production (principally, labor and capital) that enter into those outputs.

A CGE model is in "equilibrium," in the sense that supply is assumed to equal demand for the individual markets in the model. For this to be true, prices are allowed to adjust within the model (i.e., they are "endogenous"). For instance, if the demand for labor rises, while the supply remains unchanged, then the wage rate must rise to bring the labor market into equilibrium. A CGE model quantifies this effect.

Finally, a CGE model is numerically specified ("computable"), which is to say it incorporates parameters that are believed to be descriptive of the actual relationships between quantities and prices. It produces estimates of changes in quantities (such as employment, the capital stock, gross state product and personal consumption expenditures) that result from changes in prices (such as the price of labor or the cost of capital) arising from changes in tax policy (such as the substitution of an income tax for a sales tax).

To determine the effect of the proposed margin tax in Nevada, additional information about the tax base by industry was required for the model to solve. To

<sup>21</sup> For more details see <a href="http://www.beaconhill.org/STAMP\_Web\_Brochure/STAMP\_IntroductionMS.">http://www.beaconhill.org/STAMP\_Web\_Brochure/STAMP\_IntroductionMS.</a> html.

<sup>22</sup> For a clear introduction to CGE tax models, see John B. Shoven and John Whalley, "Applied General-Equilibrium Models of Taxation and International Trade: An Introduction and Survey," Journal of Economic Literature 22 (September, 1984): 1008. Shoven and Whalley have also written a useful book on the practice of CGE modeling entitled Applying General Equilibrium (Cambridge: Cambridge University Press, 1992). See also Roberta Piermartini and Robert Teh Demystifying Modelling Methods for Trade Policy (Geneva, Switzerland: World Trade Organization, 2005) <a href="https://www.wto.org/english/res\_e/booksp\_e/discussion\_papers10\_e.pdf">http://www.wto.org/english/res\_e/booksp\_e/discussion\_papers10\_e.pdf</a> (accessed June 18, 2010).

make these predictions as accurate as possible, in-depth state level data was used to incorporate the four main metrics involved in the ballot measure: gross receipts, cost of labor, cost of goods and the flat 30 percent deduction.

The first data point required was taxable annual receipts by each of NV-STAMP's 27 industrial sectors, differentiated by their approximation to the 1-million-dollar receipts threshold. This level of detail was only available in the 2007 Survey of Business Owners.<sup>23</sup> Using the North American Industry Classification System (NAICS), we were able to calculate the "Sales, receipts, or value of shipments" of firms by the required sectors. This data was also available broken down by whether the company had sales less than or greater than and equal to 1 million dollars. Compiling this data together produced total receipts by sector for all firms with receipts greater than 1 million dollars in the state of Nevada in 2007.

According to the proposal, various components of receipts should not be included in the calculation because they are exempted forms of receipts. Exact details of the regulatory implementation of these exemptions could have large effects on the actual base, and tax liability of individual companies. To calculate this, we reviewed the "Corporation Income Tax Returns" at a national level to determine the share of receipts that would be exempt.<sup>24</sup> At a national level we took 'Total Receipts' and compared that to the sum of 'Bad Debt', 'Dividend received from Foreign Corporations', 'Dividend Income' and 'Interest on State and Local Government Obligations' (all forms of exemptions) resulting in the share of total receipts that is taxable. This share was applied to the state level detail from the prior paragraph.

The next step was to subtract revenue from nonprofits, as nonprofits would not be subject to the margin tax. State level details of nonprofit receipts did not exist, so we took the ratio of total assets of nonprofits, relative to total assets of all active corporations at the national level.<sup>25</sup> We then used this ratio as a proxy for the share of receipts that were attributed to nonprofits and therefore exempt from the taxable base, at the state level. The final exemption removed was the payment of state Gaming License Fee Revenue, taken out of our 'Entertainment and Recreation' sectors tax liability.

The next required step was calculating the size of the three deduction options for

<sup>23</sup> U.S. Census, "2007 Economic Census, "Survey of Business Owners," <a href="http://www.census.gov/econ/sbo/">http://www.census.gov/econ/sbo/</a>.

<sup>24</sup> Internal Revenue Service, "Statistics of Income, Historical Tables. Table 13," <a href="http://www.irs.gov/uac/SOI-Tax-Stats---Historical-Table-13">http://www.irs.gov/uac/SOI-Tax-Stats---Historical-Table-13</a>.

<sup>25</sup> Internal Revenue Service, "All active corporations: IRS Statistics of Income, Table 1: Return of Active Corporations," <a href="http://www.irs.gov/uac/SOI-Tax-Stats-Returns-of-Active-Corporations-Table-1">http://www.irs.gov/uac/SOI-Tax-Stats-Returns-of-Active-Corporations-Table-1</a>. "Nonprofit: IRS Statistics of Income, Table 16: Nonprofit Charitable Organizations," <a href="http://www.irs.gov/uac/SOI-Tax-Stats---Historical-Table-16">http://www.irs.gov/uac/SOI-Tax-Stats---Historical-Table-16</a>.

each sector. The first was a flat 30 percent of sales, and was calculated by taking 30 percent of the baseline discussed in the paragraphs above. The second is payroll. This was also compiled using the 2007 Survey of Business Owners, allowing for the same level of breakdown, by sector and by companies receiving over and under 1 million dollars in revenue. The third possible deduction is 'Cost of Goods Sold.'

We were unable to locate any comprehensive data of this sort at a state level, so we used Internal Revenue Service (IRS) national data to determine the ratio of cost of goods sold to receipts. Using the IRS returns of Active Corporations we were able to calculate the ratio of 'Business Receipts' to 'Cost of Goods Sold' by sector at a national level.<sup>26</sup> These ratios were then applied to the base that we had calculated for the state.

With the three possible deductions calculated by sector, the largest of the three was subtracted from the receipts base. The remainder became the taxable base for each of the 27 sectors, while only taking into account the receipts of those firms that earned 1 million dollars or more. Where necessary, numbers were inflated using historical annualized state Gross Domestic Product growth.

Table 3 details the private sector job changes by industries as defined in the STAMP model. This breakdown closely follows the related three-digit NAICS codes. The size of the dynamic job losses by sector is a reflection of not only the absolute size of the sector and the expected tax burden that a margin tax would exert on the industry, but also the way that the tax change would dynamically work through the state's economy.

**Table 3: Employment Effect by Sector** 

	2015	2018
Agriculture, forestry & fishing	(16)	(16)
Mining	(40)	(39)
Construction	(140)	(146)
Food & tobacco products	(25)	(25)
Textiles & apparel	(2)	(2)
Building materials	(15)	(16)
Paper & publishing	(19)	(19)
Chemicals, petroleum, rubber & plastics	(13)	(13)
Electrical equipment & appliances	(1)	(1)
Computer & electronic manufacturing	(5)	(6)
Motor vehicles & other transportation vehicles	(3)	(3)

(Cont'd)

Internal Revenue Service, "Corporation Data by Sector or Industry," <a href="http://www.irs.gov/uac/SOI-Tax-Stats-Corporation-Data-by-Sector-or-Industry#\_bm2">http://www.irs.gov/uac/SOI-Tax-Stats-Corporation-Data-by-Sector-or-Industry#\_bm2</a>.

**Table 3: Employment Effect by Sector** 

	2015	2018
Primary & fabricated metal	(12)	(12)
Industrial machinery & equipment	(3)	(3)
Other manufacturing (includes metals, machinery & other)	(30)	(30)
Transportation & warehousing	(161)	(161)
Information	(115)	(116)
Electricity, gas & utilities	(13)	(12)
Wholesale trade	(71)	(74)
Retail trade	(527)	(545)
Banking & finance	(366)	(358)
Insurance	(84)	(85)
Real estate, rental & leasing	(428)	(431)
Professional, technical & scientific services	(51)	(40)
Management, administrative & waste services	(221)	(228)
Health services & social assistance	(295)	(858)
Hotels, arts, food service & entertainment	(822)	(858)
Educational & other services	(130)	129)

#### **About the Authors**

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The Beacon Hill Institute at Suffolk University in Boston focuses on federal, state and local economic policies as they affect citizens and businesses. The Institute conducts research and educational programs to provide timely, concise and readable analyses that help voters, policymakers and opinion leaders understand today's leading public policy issues.

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