

*Maine's Biennial Budget:  
Tax Cuts to Spur Job  
Growth*

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## Introduction

On February 11, 2011, Maine Governor Paul LePage released his budget proposal for the fiscal year (FY) 2012-2013 biennium. In his budget message, Governor LePage declared that the budget has one priority: “to reform and restructure state government to ensure that state government helps – not hinders – private sector job creation.”<sup>1</sup>

To that end, the Governor proposes to reform the state employee pension and health benefits that would save approximately \$730 million over the biennium. The employee pension and health care savings would be allocated to increase spending on education and \$203 million in tax cuts. Specifically, the budget would align the state’s tax code with that of the federal government in two respects: on the state depreciation schedule for business equipment investments and the state personal exemption deductions. It would also eliminate the marriage penalty beginning in FY 2012. Also, the Governor’s budget proposal would align Maine’s estate tax exemption to the federal exemption of \$5 million. Finally, the state’s top personal income tax bracket would fall from 8.5% to 7.95% in FY 2013.<sup>2</sup>

The Republicans and Democrats in the legislature have each proposed their own plans. The Republican plan would include the changes to the estate tax, but not the depreciation schedule for business equipment. It would eliminate the sales tax on meals served in nursing homes. The Republican plan would also create two personal income tax brackets of 6.5 percent for income at \$36,000 and 7.95 percent for income above that level. The Democrats would expand the personal income tax brackets by 5%; expand the Earned Income Tax Credit; include some of the business investment expensing in the Governor’s proposal; and include sales tax exemptions for targeted activities, such as boating and fishing.

Before approving the tax cuts, both the Governor and legislators would benefit from a solid economic analysis of the proposed cuts. Since they generate private investments, tax cuts will have positive economic effects. To demonstrate how tax cuts would ripple through the Maine economy, the Beacon Hill Institute (BHI) applied its Maine State Tax Analysis Modeling Program (ME-STAMP). In the following section, we report the model’s results as measured against the ‘baseline economy’ of no tax change.

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<sup>1</sup> Governor’s Budget Message, (February 11, 2011)<https://www.maine.gov/budget/budgetinfo/2012-2013/overview/Governor's%20Budget%20Message.pdf>, (accessed March 22, 2011).

<sup>2</sup>“Summary Of Major Tax Provisions in the Biennial Budget: \$203 Million in Tax Cuts - FY12/FY13,” Maine Revenue Services, <http://www.maine.gov/budget/budgetinfo/2012-2013/Tax%20Items%20Summary%20.pdf> (accessed March 22, 2011).

## Taxes and the Maine Economy

Changes in tax rates have measurable effects on taxable activities. The weight of evidence shows that changes in state-level taxes have significant effects on state economic activity.<sup>3</sup> Income tax cuts would increase household after-tax income.

Based on the most recent government data, households would spend 94.8 cents of each dollar of their income tax cut and save the other 5.2 cents. The additional spending would add to private consumption and the savings would fund new investment. However, all of the new investment is unlikely to take place in Maine. The adjustment to the depreciation schedules will also spur new investment, all of which would likely take place in Maine.

The estate tax changes would increase investment insofar as it applied to small family-owned businesses and farms that would have more money to invest and hire as they are transferred to other family members. However, BHI did not include the estate tax in the simulations due to the lack of official state revenue estimates on which to base the analysis.

The STAMP model allows us to measure the degree to which these economic mechanisms will affect the Maine economy. All of these effects are balanced against the \$203 million in lost revenue. As a result, state employees would likely reduce their consumption spending over the medium term.

We provide “dynamic” as opposed to “static” revenue estimates. 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 rise in a sales tax from 6% to 7%, would cause revenues to rise by 16.7% ( $= (7-6)/6$ ). A dynamic estimate would show a smaller rise in revenue because it would capture the negative effect on the tax base of the rise in the sales tax.

Taxpayers respond to tax increases very much the way they respond to higher prices for goods; they buy less of the taxed products or work less in response to higher income taxes. Corporations also change their behavior. The opposite works with tax cuts, as consumers are induced to purchase the once-higher taxed good and workers are encouraged to put in more hours which results in higher take home pay.

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<sup>3</sup>See, for example, Barry W. Poulson and Jules Gordon Kaplan, "State Income Taxes and Economic Growth," *Cato Journal* 28, no. 1 (Winter 2008): 53-71

## The Governor's Plan

Table 1 displays the simulation results for the Governor's plan.<sup>4</sup> The ME-STAMP model shows that the tax cuts would increase private sector jobs by 1,912 in the first year by putting more money in the hands of Maine households and businesses. The cuts would increase real disposable income by \$133 million in 2012.

**Table 1: The Fiscal and Economic Effects of the Governor's Tax Plan**

<b>Economic Effects</b>	<b>2012</b>	<b>2015</b>
Private Jobs	1,912	2,695
Baseline Investment, (\$m)	13	4
Real Disposable Income (\$m)	133	201
<b>State Taxes</b>		
Sales Tax	5	7
Personal Income Tax	(40)	(129)
Corporate Income Tax	(33)	7
Other Taxes and Fees	2	3
<b>Total Revenue Change</b>	<b>(66)</b>	<b>(112)</b>

The corporate income tax changes lead to a reduction in the tax burden on capital investments. As a result, both local and out-of-state businesses find investment more attractive in Maine. We estimate that investment will increase by \$13 million in 2012.

By 2015, the effect of the business tax reductions fade and the income tax cut come into full force. Private sector job creation increases to 2,695 and real disposable income would increase by \$212 million. Investment would increase by \$4 million against the baseline of no tax change.

The corporate and personal income tax cuts show moderate dynamic revenue effects. In 2012, the sales and other tax revenues would increase by \$5 million and \$2 million respectively. These gains would result from the additional economic activity generated by the tax changes. The gains would combine with the personal and corporate tax revenue losses to leave the state with \$66 million less in tax revenue in FY 2012.

By 2015, the effect of corporate income tax changes fades and the personal income tax change fully kick-in, which give a moderate boost to the dynamic revenue effects. Sales and other taxes

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<sup>4</sup> We gather economic data from three sources: The U.S. Department of Labor, Bureau of Labor Statistics provides employment and wage data; the U.S. Department of Commerce provides income and investment data; and the 2010 Comprehensive Annual Financial Report for the State of Maine provides supplements to the other sources.

gain \$7 million and \$3 million respectively. The personal income tax collections are reduced by \$129 million. Overall, the state would see tax revenues fall by \$112 million in 2015.

### The Republican Plan

The Republican plan would produce larger tax cuts and thus larger gains to the private economy in the long run. Table 2 displays the results.

Private employment would increase by 801 in 2012, and when fully implemented in 2015 would create 3,741 jobs by leaving more money in the hands of the state's households and businesses. The combination of individual income tax and sales tax changes would increase real disposable income by \$54 million in 2012 and \$277 million in 2015.

**Table 2: The Fiscal and Economic Effects of the Republican Tax Plan**

<b>Economic Effects</b>	<b>2012</b>	<b>2015</b>
Private Jobs	801	3,741
Baseline Investment, (\$m)	-2	8
Disposable Income (\$m)	54	277
<b>State Taxes</b>		
Sales Tax	2	9
Personal Income Tax	(47)	(165)
Corporate Income Tax	16	0
Other Taxes and Fees	1	4
<b>Total Revenue Change</b>	<b>(28)</b>	<b>(152)</b>

The corporate income tax changes lead to a reduction in the tax burden on capital investments. As a result, both local and out-of-state businesses would find investment more attractive in Maine. We estimate that investment will decrease by \$2 million in 2012 and increase by \$8 million in 2015. State revenues would drop by \$28 million in 2012 and \$152 million in 2015.

### The Democratic Plan

The Democratic plan would produce smaller tax cuts and thus slightly smaller gains to the private economy in the long run. Table 3 displays the results.

Private employment would increase by 515 in 2012, and when fully implemented in 2015 would create 576 jobs. The combination of individual income tax and sales tax changes would increase real disposable income by \$34 million in 2012 and \$43 million in 2015.

**Table 3: The Fiscal and Economic Effects of the Democratic Tax Plan**

<b>Economic Effects</b>	<b>2012</b>	<b>2015</b>
Private Jobs	515	576
Baseline Investment, (\$m)	2	1
Disposable Income (\$m)	34	43
<b>State Taxes</b>		
Sales Tax	1	1
Personal Income Tax	(19)	(25)
Corporate Income Tax	0	0
Other Taxes and Fees	1	1
<b>Total Revenue Change</b>	<b>(17)</b>	<b>(23)</b>

The corporate income tax changes lead to a reduction in the tax burden on capital investments. As a result, both local and out-of-state businesses would find investment more attractive in Maine. We estimate that investment will increase by \$2 million in 2012 and \$1 million in 2015. State revenues would drop by \$17 million in 2012 and \$23 million in 2015.

## Conclusion

The idea that state economic development depends far less on taxes than on the quality and extent of government programs is a recurring theme promoted by supporters of activist government, particularly during downturns.<sup>5</sup> Taxes, say these advocates, have little to do with decisions to work, shop, live or invest in a state and their bite on private choices is minimal.

However, this “taxes-don’t-matter” view is wrong.<sup>6</sup> The weight of evidence shows that the level of taxes has significant effects on economic activity. This is especially true in today’s competitive economic environment where firms and labor are highly mobile and responsive to tax incentives and disincentives.

All three tax change plans, the Governor’s, the Republicans’ and Democrats’ in the legislature, if enacted, would reduce state taxes on Maine’s households and businesses. In this report we show that making moderate changes to the state personal and corporate income taxes would improve the state economy. State policymakers should consider this type of tax reform or bolder moves to cut taxes and provide a larger boost to the economy.

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<sup>5</sup> Peter S. Fisher and Elaine Ditsler, "Taxes and State Economic Growth: The Myths and the Reality," (May 2003) *Policy Brief*, The Iowa Policy Project, <http://www.iowapolicyproject.org/2002-2004docs/030515-tax-cuts.pdf>. See also Robert G. Lynch, *Rethinking Growth Strategies: How State and Local Taxes and Services Affect Economic Development* (Washington D.C.: Economic Policy Institute, 2004).

<sup>6</sup> See, for example, Barry W. Poulson and Jules Gordon Kaplan, "State Income Taxes and Economic Growth," *Cato Journal* 28, no. 1 (Winter 2008): 53-71. See also Timothy Bartik, *Who Benefits from State and Local Economic Development Policies?* (Kalamazoo, MI: W.E. Upjohn Institute, 1991).

## Methodology

To identify the economic effects of the tax discounts and understand how they operate through a state's economy, BHI utilized its STAMP (State Tax Analysis Modeling Program) model. 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>7</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) that result from changes in tax policy (such as the substitution of an income tax for a sales tax).

Because it consists of a large number of interrelated equations, a CGE model ordinarily requires the application of a nonlinear computational algorithm. STAMP requires the development and application of a sophisticated computer program for the solution of its equations.

BHI entered the following parameters into the STAMP model for the simulations:

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<sup>7</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 The, *Demystifying Modelling Methods for Trade Policy* (Geneva, Switzerland: World Trade Organization, 2005) [http://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) (accessed June 18, 2010).



## The Governor's Plan

- We modeled the corporate income tax changes as a \$33.3 million static revenue loss in FY 2012, and a \$6.3 million increase FY 2015.
- We modeled the increase in the personal exemption, standard deduction for married-joint filers and the elimination of the Alternative Minimum Tax (AMT) and other tax additions as a static revenue decrease of \$40.5 million in FY 2012.
- We modeled the rate decrease from 8.5 percent to 7.95 percent beginning in 2013.
- We modeled combined total revenue decrease due to personal incomes tax changes as a static revenue change of \$140 million in FY 2015.
- We did not model the estate tax changes due the lack of official revenues the state on which to base our estimates.

## The Republican Plan

- We modeled the corporate income tax changes as a \$16.3 million static revenue increase in FY 2012, and a \$1.5 million increase in FY 2015.
- We modeled the increase in the personal exemption, standard deduction for married-joint filers and the elimination of the AMT and other tax additions as a static revenue decrease of \$53.1 million in FY 2012.
- We modeled the rate decrease from 8.5 percent to 7.95 percent beginning in 2013.
- We modeled combined total revenue decrease due to personal incomes tax changes as a static revenue decrease of \$181.7 million in FY 2015.

## The Democratic Plan

- We modeled the personal income tax cuts as a static revenue loss of \$20.1 million in FY 2012 and \$27.2 million in 2015.
- We modeled the sales tax changes as a \$1.37 million static revenue loss in 2012 and a \$0.580 million loss in FY 2015.

## **The Beacon Hill Institute Team**

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