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Question 1:

A Best-Case Scenario

David G. Tuerck, PhD
Michael Head, MSEP
Paul Bachman, MSIE
Alfonso Sanchez-Penalver, MSF

THE BEACON HILL INSTITUTE AT SUFFOLK UNIVERSITY
8 Ashburton Place
Boston, MA 02108
Tel 617-573-8750, Fax 617-994-4279
E-mail: bhi@beaconhill.org, Web: www.beaconhill.org

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Executive Summary

On November 4, 2008 the Massachusetts electorate will vote on ballot Question 1, which would abolish the state personal income tax (PIT), currently set at 5.3%.[1] The ballot question would cut the PIT rate in half on January 1, 2009 and eliminate it as of January 1, 2010.

Proponents of Question 1 claim that it would provide an annual saving of $3,700 to each taxpayer, reduce waste and create jobs.[2] Opponents say that Question 1 would "put education at risk," bring harm to "seniors, working families and people with disabilities" and threaten public safety.[3] Opponents further warn that state and local government would replace some or all of the lost revenue with increases in other taxes, particularly sales and property taxes.

Notably absent from this rhetoric is any consideration of what might happen if state and local officials simply tried their best to accommodate the voters, should Question 1 pass. This study attempts to find out. It considers a "best-case scenario" in which the state cuts programs without cutting them to the bone and increases other taxes, while still providing for modest savings to taxpayers and benefits to the economy. It attempts to show how the state could minimize service cuts and tax increases while still offering taxpayers the benefits that they would expect to receive in approving Question 1.

Our scenario shows that, for fiscal year 2011, the first fiscal year in which Question 1 would be fully implemented:

1. Combined state and local spending would be cut by $9.879 billion or 12%. Almost all of this would come from cuts in services, including, in particular,

[1] Massachusetts Department of Revenue, "Massachusetts Residential Income Tax 2008," http://www.mass.gov/Ador/docs/dor/Forms/IncTax08/Drafts08/form_1.pdf (accessed September 29, 2008).
[2] Committee for Small Government, "Vote Yes on Question 1," http://www.smallgovernmentact.org/joomla/ (accessed September 29, 2008).
[3] Coalition for Our Communities, "Vote NO on Question 1," http://votenoquestion1.com/facts.html (accessed September 29, 2008).

public welfare, fire protection and education. However, after making these cuts, Massachusetts would still spend as much, in cost-of-living adjusted dollars, per household on the programs affected as a sample of comparable states.

2. Sales and property taxes would rise by $3.749 billion. Once these tax increases were factored in, the effect of passing Question 1 would be to reduce state and local Massachusetts tax burdens by $9.879 billion or by 18%.

3. The net effect of eliminating the income tax and of raising sales and property taxes would be the creation of 80,456 new jobs, or an increase of 2.15% in the total number of existing jobs. The after-tax income of Massachusetts households would rise by $1,461 or by 2.45%.

Cutting Services

We estimate that Question 1 would cause Massachusetts to lose $13.628 billion in PIT revenue in fiscal year 2011, the first full fiscal year of implementation.[4] Most of this revenue loss would have to be accommodated by cuts in services.

The first step toward formulating these cuts was to identify service categories in which Massachusetts state and local government spent significantly more per household, and in cost-of-living adjusted dollars, than a sample of comparable states. Using this sample, we determined the dollar reduction in services in each such category that could take place, such that Massachusetts would not spend less, on average and in real terms, than the comparable states in those categories. Taking this approach, we found that Massachusetts state and local government could cut $9.649 billion in services.

Cutting Costs

The state could save $1-$2 billion a year by cutting costs, rather than services. Erring on the side of caution, we factored in only one cost saving: By modifying the state prevailing wage law, the state could save $230 million annually in construction costs.

[4] This is a "static" estimate that ignores effects that the tax change and other tax changes that might occur in the wake of Question 1 would have on the economy and therefore on taxable income.

Raising Other Taxes

If the state followed the criteria outlined here for cutting services and costs, a revenue shortfall of $3.749 billion would remain. We envision the state as making up $3.430 billion of this gap by raising the state sales tax from 5% to 7% and by broadening the sales tax base to eliminate exemptions of food, clothing, pharmaceuticals, and household items such as heating oil. The remainder of the gap would be made up by raising property taxes by $319 million.

Summing Up

Table ES-1 details the program and expenditure cuts that we recommend in order to close the revenue gap. Table ES-1 shows the results. State government could cut state services and costs by $6.139 billion and local aid by $4.058 billion. It would close the rest of the revenue gap by raising sales taxes by $3.430 billion. Local government would cut services by $3.740 billion, replacing $319 million of the lost local aid with higher property taxes. Total cuts in services and costs would come to $9.879 billion.

Table ES-1: "Best-Case" Spending Cuts and Tax Increases, FY 2011 ($000)

Spending Cuts and Tax Increases	State	Local	Total
Spending Cuts			
Public Welfare	4,082,955	23,414	4,106,369
Fire Protection	0	214,045	214,045
Housing and Community Development	197,376	652,218	849,594
Sewerage	52,225	128,890	181,115
Other Unaccountable	1,576,814	2,341,855	3,918,669
Foundation Budget	0	379,130	379,130
State Prevailing Wage	229,819	0	229,819
Total Spending Cuts	6,139,189	3,739,552	9,878,741
Local Aid Cut	4,058,075	-4,058,075	0
Total Cuts	10,197,264	-318,523	9,878,741
Tax Increases	0	0	0
Sales Tax	3,430,409	0	3,430,409
Property Tax	0	318,523	318,523
Total Tax Increases	3,430,409	318,523	3,748,932
Total Spending Cuts and Revenue Increases	13,627,673	0	13,627,673

Economic Effects

In order to sort out the economic effects of the tax changes assumed here, we used our Massachusetts-STAMP model to estimate effects on employment, investment and disposable income. We found that the tax changes would increase employment by

80,456 jobs and disposable income $525.40, or 1.89%, or per capita. The disposable income of the average household, after accounting for new taxes and economic effects, would rise by $1,461.[5]

Table ES-2: "Best-Case" Dynamic Effects, FY 2011

Economic Changes	
Private Employment	99,969
% Change	3.18
Government Employment	-19,513
% Change	-3.96
Total Employment	80,456
% Change	2.15
Investment ($000,000)	-172.92
% Change	-0.23
Real Disposable Income per Capita ($)	525.4
% Change	1.89
Real Disposable Income per Household ($)	1,461
% Change	2.45

These results assume normal economic conditions, not the economic crisis through which the state is going. While we assume that, once approved, Question 1 would go into effect as intended, it may turn out that prudence would dictate postponement of its implementation for a year or so, perhaps until July 1, 2011.

Finally, we recognize that the scenario considered here is only one of many options that would be before public officials, should Question 1 be adopted. Also, though we consider it be among what would be a number of "best" options, we do not, in describing this scenario, make any recommendation for or against Question 1. It is up to the voters to examine the tradeoffs between service cuts and economic gains and make a decision that reflects their values and priorities. We can only try to show what those tradeoffs might be.

[5] For information about STAMP, see Internet, at http://www.beaconhill.org/STAMP_Web_Brochure/STAMP_IntroductionMS.html.

Introduction

For the second time in six years, the Committee for Small Government (CSG) is offering a ballot measure that would eliminate the Massachusetts state personal income tax (PIT). In 2002, 45.3% of voters supported a similar CSG measure. Owing to its placement on a presidential election ballot, Question 1 is drawing more media scrutiny and organized opposition.

The CSG argues that the elimination of the PIT would transfer about $12 billion from the state government to taxpayers.[6] This transfer, they say, would increase consumer spending, saving, investment and overall economic activity, while forcing out wasteful government spending.

The Coalition for Our Communities (COC) leads the opposition to Question 1. The COC maintains that elimination of all PIT revenue would severely damage the state economy, weaken public schools and lead to higher property taxes. The Massachusetts Taxpayers Foundation, which also opposes Question 1, reports that the state would have to cut 71.1% of discretionary spending as a result of the measure.[7]

We examined revenue sources and expenses for Massachusetts state and local government, and for other states we identified as comparable to Massachusetts, to determine how Massachusetts could cut government spending, and by how much. We have identified budget categories where cuts could be made to bring Massachusetts spending in line with that of these comparable states. In addition to these cuts, it would be necessary to bring about additional costs savings and to raise new revenue in order to close the revenue gap. We also estimated the effects on the state economy of the tax and spending changes that would take place.

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[6] Committee for Small Government, "What Are the Benefits of Ending the Income Tax in Massachusetts?" http://www.smallgovernmentact.org/joomla/index.php?option=com_content&view=article&id=121%3Abenefits-of-question-1&catid=34%3Awhy-end-the-income-tax&Itemid=99.

[7] Massachusetts Taxpayers Foundation, *The Enormous Consequences of Question 1*, (October, 2008): http://www.masstaxpayers.org/files/MTF_Question1_Analysis.pdf.

The Question

Question 1 proposes the elimination of the Commonwealth's current 5.3% income tax over two years, with half of the tax cut to take effect on January 1, 2009 and the remaining half on January 1, 2010. Introduced by the Committee for Small Government, the ballot initiative faces strong opposition from several groups, including the national and Massachusetts teachers unions, AARP, the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) and members of both the Democratic and Republican parties.

The Commonwealth's personal income tax has undergone numerous changes over the past 20 years. In 1989 personal income was taxed at 5%, but the rate was increased "temporarily" to 5.75% due to falling revenue, in part owing to the savings and loan crisis. This increase was indeed temporary and was followed by another increase the next year to 6.25%. Thanks to a sunset clause on the second increase, the rate was reduced to 5.95% in 1992 and then later reduced to 5.85%, where it stood in 2000.[8]

In 2000, Question 4 proposed to reduce the PIT to 5% by 2003.[9] The measure was passed with a 59% majority but the rate was frozen by the legislature at 5.3% in 2002 owing to another economic downturn. As the economy recovered, tax collections surged, and by 2005 total PIT revenues were nearly $2 billion higher than in 2000. Today, the personal income tax rate remains at 5.3%.[10]

In the wake of the 2002 rate freeze, the CSG introduced its first ballot question. The measure would have eliminated the state income tax on July 1, 2003. The measure was able to garner a 45.3% "Yes" vote, a stunning result that far exceeded most expectations. After waiting the required two election cycles, the CSG collected more than 100,000

[8] Citizens for Limited Taxation, "Tax Cuts of the '90s," http://cltg.org/tax_cuts.htm. (accessed October 1, 2008).
[9] Office of the Secretary of the Commonwealth, "Information for Voters," http://www.sec.state.ma.us/ELE/elepdf/IFV2000.pdf (accessed October 1, 2008).
[10] U.S. Census. "Federal, State, and Local Governments," http://www.census.gov/govs/www/statetax.html (accessed October 1, 2008).

signatures to place Question 1 on the November 4, 2008 ballot, again giving voters the opportunity to eliminate the state PIT.

Should Question 1 pass, policymakers will wrestle with three fundamental issues. First, will they honor the voters' will and permit the decision to stand? Second, if the legislature does permit the decision to stand, how will state and local government cut spending? Third, how, if at all, will state and local authorities raise other taxes to make up for the revenue shortfall? Nothing in the measure prevents state and local authorities from taking this step.

In this study, we assume that, if passed, the measure will stand and that state and local authorities will adjust to the measure by implementing a combination of spending cuts and tax increases. We provide estimates for FY2011, the first fiscal year in which Question 1 would be fully implemented.

The Argument for Question 1

The Committee for Small Government presents three main arguments for eliminating the income tax.[11] According to the Committee, the initiative would:

1.) Return $3,700 to each of the 3,400,000 Massachusetts workers each year.

2.) Remove $12 billion from an inefficient government and put the money in private hands where it would create hundreds of thousands of jobs.

3.) Encourage workers and businesses to migrate to Massachusetts.[12]

The CSG believes that returning this chunk of state tax revenue to the private sector would produce large economic gains and force the state to eliminate flawed or inefficient programs. This assumption is questionable, since the ballot measure merely eliminates the income tax but does not set any limit on raising other taxes or on spending. The state could, in fact, go right on spending at current levels by raising other taxes.

[11] Committee for Small Government, "Why end the income tax?" (May 2008): http://www.smallgovernmentact.org/joomla/index.php?option=com_content&view=article&id=63&Itemid=34. (accessed September 29, 2008).
[12] Ibid.

COC is one of the main organizations determined to defeat Question 1. COC offers three main arguments for a "No" vote:

1.) There would be decreases in investment in important public sectors of the economy, including public safety and infrastructure, which would damage the state's competitiveness.

2.) A decline in state revenue would directly lead to a reduction in funds to public education, which receives a large contribution from the Commonwealth.

3.) Local government would be forced to override Proposition 2½, which limits property taxes, in order to compensate for lost state aid.[13]

COC believes that Question 1 is a "proposal that will have severe and immediate consequences" – a contention on which both sides agree. COC believes the consequences will be negative leading to school closings, public safety risks and unsafe bridges.[14] There would, no doubt, be negative effects. What COC does not consider, however, are the positive effects that the measure would have on the state economy.

Analysis

We ask three questions that would apply to any scenario in which state and local officials would attempt to accommodate Question 1:

1. By how much would they cut services and costs?
2. Once the income tax was eliminated, by how much would they raise other taxes in order to fill the resulting revenue gap?
3. What would be the economic effects of eliminating the income tax under Question 1, combined with any increases in other taxes that its elimination would bring about?

[13] Coalition for Our Communities, "Why Vote No to the Income Tax Proposal?" http://votenoquestion1.com/facts.html (accessed October 15, 2008).
[14] Ibid.

In our analysis, we assume that state and local government would adapt to the elimination of the income tax through a combination of spending cuts and tax increases. Because we cannot predict with any confidence the precise adjustments that would be forthcoming, we consider a plausible scenario, based on comparative economic data for Massachusetts and other states and based on the availability of other revenue sources.

We first show how Massachusetts could reduce spending in such a way as to bring it more closely in line with six comparable states in terms of the services offered by those states. Next, we consider one measure that would reduce state and local government costs – the reform of the state prevailing wage law. Finally, we determine how the state could utilize other taxes to enhance revenues. Once this scenario has been laid out, we estimate the impact of our recommended measures on the state economy.

Revenues and Spending by Massachusetts Governments

Table 1 shows Massachusetts state and local revenues and expenditures for FY2006. The table also displays household data for Massachusetts and the average across the 48 continental states, and the standard deviation of the national average.[15] The standard deviation measures the dispersion of the data around the mean. The greater the standard deviation, the greater the dispersion of data points around the mean. We use per household figures to allow for a comparison across large and small states, and as a proxy for the taxpaying unit.

In FY2006, the state collected $10.483 billion in PIT, or $4,140 per household, accounting for more than 15.5% of the $66.6 billion, or $26,290 per household, of total state and local revenue.[16] The corporate income tax, which would not be affected by Question 1, generated almost $2 billion in revenue, or $730 per household. The two other major sources of income for state and local government were property taxes and

[15] U.S. Census, "Federal, State, and Local Governments Finances FY '06," http://www.census.gov/govs/www/estimate06.html (accessed October 1, 2008).
[16] We use households were to compare revenue and expenditures between states, since it is a good proxy for a tax paying entity.

federal payments to the state totaling $10.8 billion ($4,270 per household) and $9.7 billion ($3,840 per household) respectively.

Table 1: Massachusetts Revenue and Expenditures ($000), FY 2006

		Per Household		
	Gross	*Massachusetts*	*National Average*	*Std. Dev.*
Revenue	66,602,744	26.29	22.40	4.19
Revenue less Fed. Payments	56,862,875	22.45	18.32	3.62
Federal Payments to State	9,739,869	3.84	4.08	1.22
General Revenue from Own Source	42,508,632	16.78	14.31	2.74
Selected Categories				
General Sales Tax	4,009,371	1.58	2.22	1.00
Individual Income	10,483,437	4.14	2.08	1.29
Corporate Income	1,859,009	0.73	0.40	0.25
Property	10,828,955	4.27	2.90	1.23
Expenditures	61,909,591	24.44	20.40	3.50
Direct General	52,418,202	20.69	17.63	2.79
Selected Categories				
Education	17,029,257	6.72	6.18	0.92
Public Welfare	11,449,407	4.52	3.11	0.82
Hospitals	1,331,711	0.53	0.89	0.63
Highways	2,252,061	0.89	1.29	0.37
Fire Protection	978,700	0.39	0.25	0.10
Correction	1,141,061	0.45	0.49	0.14
Protective Inspection and Regulation	198,460	0.08	0.10	0.06
Sewerage	1,041,449	0.41	0.30	0.09
Government Administration	2,314,643	0.91	0.95	0.27
Interest on General Debt	3,710,665	1.46	0.66	0.23
Housing and Community Development	1,509,390	0.60	0.30	0.13
Insurance Trust Expense	4,948,638	1.95	1.51	0.60
Other and Unallocable	4,962,175	1.959	0.85	0.44

On the expenditure side, state and local government spent $61.9 billion, or $24,440 per household. Education was the largest category, at $17 billion or $6,720 per household. Public welfare accounted for $11.4 billion ($4,520 per household) and payments for interest on general debt for $3.7 billion ($1,460 per household).

The third column of Table 1 shows average revenues and expenditures across the 48 continental states. Both Massachusetts total revenue and expenditure are about $4,000

per household, or almost 20% higher than the national average. On the tax side of the ledger, Massachusetts general sales tax revenue is $640 lower than the national average per household. However, Massachusetts collects significantly higher revenues per household than the national average when it comes to corporate income and property taxes. Moreover, the Massachusetts PIT yields $4,140 per household, almost double the national average of $2,080.

On the spending side, Massachusetts exceeds the national average in several categories. Direct general expenditures, which exclude utility expenditures and insurance trust expenditures, are $3,000 more per household then the national average. While some spending categories, such as corrections and government administration are in line with the rest of the nation, others far outstrip what can be considered typical spending. Included in this category is public welfare, on which Massachusetts spends almost 50% more then the national average, and interest on general debt, which is more than double the national average.

We determined the spending categories for which Massachusetts is out of step with the rest of the country and are therefore targets for cutting. We calculated the average and the standard deviation for each category for the 48 continental states. High, or low, spending was then defined as spending outside the range of the average plus, or minus, one standard deviation. This means that normal spending would encompass approximately 68% of the states on either side of the average spending. High spending would put the state among the highest 16% of spenders while low spending would put it among the lowest 16%.

Using this definition, we found that Massachusetts has seven spending sub-categories that are defined as "high," in addition to the categories for "revenue less federal payments," for "expenditures" and for "direct general expenditures." Massachusetts spending, per household, on interest on general debt is the highest in that nation. On the other hand Massachusetts has low spending per household on highways, indicating that it has fallen behind other states in maintaining its infrastructure.

Comparison with Comparable States

Our comparison of Massachusetts with the national average for revenue and spending categories shows that Massachusetts is, in general, taxing and spending more than the national average. However, national averages are not useful in seeking tax and expenditure policy alternatives in a scenario without a PIT. Most states are not sufficiently comparable to Massachusetts with respect to their economic conditions or fiscal policies to be suitable for this purpose. Alabama and Mississippi are, for example, too poor and uncompetitive. New York and California are too large and too much given to big government.

We decided to compare services provided by Massachusetts to those provided by a sample of comparable states. Two criteria governed our selection of these states. One criterion was that the state had no income tax but was otherwise comparable, in terms of size, competitiveness or quality of life, to Massachusetts. The other criterion was that the state competed closely with Massachusetts as a center for high-tech innovation and manufacturing. We chose six states that satisfied one or both criteria.

Every year since 2001, the Beacon Hill Institute has published its *State Competitiveness Report,* in which it ranks the fifty states in terms of their competitiveness, defined as their having in place "the policies and conditions that ensure and sustain a high level of per capital income and continued growth."[17] The competitiveness index is the average of eight subindexes, such as "government and fiscal policy" and "technology," each itself the average of several individual competitiveness indicators.

Nine states have no income tax. Alaska, which derives a large amount of revenue from natural resources, was excluded, as was Nevada, which relies heavily on gambling for its state receipts. South Dakota and Wyoming were deemed too small to qualify.

[17] Beacon Hill Institute, *State Competitiveness Report*, (2007): 7, http://www.beaconhill.org/CompetitivenessHomePage.html.

Washington ranks high on our competitiveness index, but, because it has very high sales and property taxes, we excluded it. Tennessee has lower taxes but ranks low on our competitiveness index.

Of the states without an income tax, we identified New Hampshire, Texas and Florida as comparable to Massachusetts. New Hampshire has neither a sales tax nor an income tax. It ranked 9th on our competitiveness index and 10th on the technology subindex. Texas and Florida ranked well below Massachusetts (which ranked second) on our competitiveness index. But both demonstrate a capacity to keep spending down.

Three comparable states (all of which have income taxes) were selected because they stand out as strong economic competitors. Colorado ranked third on our overall 2007 competitiveness index, right behind Massachusetts, and was also ranked third in the technology subindex, two spots behind Massachusetts. Maryland, 23rd in the overall index but 2nd on the technology subindex, is also included. North Carolina is generally considered a leading technology state.[18]

Before comparing spending levels with these states, we adjusted for differences in the cost of living. The cost of living in Massachusetts is much higher than it is in the other six. To adjust for this difference, we normalized spending across the states using a predicted spatial price index.[19] Table 2 displays the adjusted levels of revenue and expenditures in our six comparable states, using the same FY2006 Census data.

[18] See Massachusetts Technology Collaborative, *2007 Index of the Massachusetts Innovation Economy.* http://web3.streamhoster.com/mtc/Index020108.pdf (accessed October 1, 2008).
[19] Bettina H. Aten, "Estimates of State Price Levels for Consumption Goods and Services: A First Brush," (November 2007): http://www.bea.gov/papers/pdf/estimates_of_state_price_levels_oct2007.pdf. (accessed October 1, 2008).

Table 2: Adjusted Comparable-State Spending Per Household, FY2006 ($000)

	Mass.	*Colorado*	*Florida*	*Maryland*	*New Hampshire*	*North Carolina*	*Texas*	*Average of Comparables*
Spatial Price Index	*1.151*	*1.05*	*1.025*	*1.066*	*1.113*	*0.966*	*0.994*	
Expenditures	24.439	21.507	21.774	22.361	18.015	21.519	22.476	21.275
Selected Categories								
Direct General	20.692	17.835	18.989	19.889	16.246	18.695	19.361	18.502
Education	6.722	6.336	5.469	7.267	6.257	6.672	7.851	6.642
Public Welfare	4.520	2.028	2.785	3.282	2.937	3.289	2.849	2.862
Hospitals	0.526	0.888	0.954	0.227	0.114	1.454	1.158	0.799
Highways	0.889	1.195	1.381	1.231	1.241	1.120	1.540	1.285
Other and Unallocable	1.958	0.882	0.806	0.919	1.015	0.758	0.718	0.850
Fire Protection	0.386	0.307	0.415	0.356	0.321	0.238	0.289	0.321
Correction	0.450	0.581	0.629	0.734	0.331	0.512	0.625	0.569
Protective Inspection and Regulation	0.078	0.088	0.135	0.140	0.124	0.071	0.081	0.107
Sewerage	0.411	0.406	0.371	0.367	0.207	0.441	0.347	0.356
Government Administration	0.914	1.107	1.123	1.145	0.838	0.715	0.753	0.947
Interest on General Debt	1.465	1.008	0.663	0.723	0.900	0.477	0.845	0.769
Insurance Trust Expense	1.953	2.028	1.404	1.684	0.827	1.275	1.482	1.450
Housing and Community Development	0.596	0.394	0.253	0.487	0.349	0.274	0.270	0.338

Impacts on the Budget

The most inflated category of Massachusetts spending is public welfare. In this area Massachusetts spends more than $4,500 per household, in "real" or normalized dollars, while Maryland, the next closest comparable, spends just two thirds that amount. This category is composed of cash payments made by the state or local government, based on some need-based requirement, payments to private medical vendors for services, including Medicare payments and state payments to the federal government for Medicare Part D. Non-medical payments to private vendors for goods or services are also included. The final subsector is Other Public Welfare, used as a catchall for welfare spending.[20]

In considering spending reductions that include Medicaid, one must account for federal matching dollars. The federal Medicaid program generally matches state Medicaid spending, dollar for dollar. Thus for each dollar cut from Medicaid, the state would save only $.50 in own-source revenue. Massachusetts Medicaid spending came to $6.89

[20] U.S. Census, *Government Finance and Employment Classification Manual*, (October 2006): http://ftp2.census.gov/govs/class06/ch_5.pdf (accessed October 1, 2008).

billion in FY2006.[21] However, Massachusetts spent over $11.3 billion on public welfare in FY2006, leaving $4.4 billion in non-Medicaid spending eligible for spending cuts. Massachusetts spent $411 more per household on Medicaid than the comparable states.

Average spending on public welfare in the six comparable states was $2,862, about half the amount spent per household in Massachusetts. Indeed, among all 48 continental states, only New York and Rhode Island spent more in FY2006. If Massachusetts were to cut its spending in this area to the average level of the comparable states, but allow Medicaid spending to remain $411 per household above the comparable states, Massachusetts would save $1,247 per household, or $3.2 billion, which alone would make up 30% of the lost PIT revenue. This would leave spending on public welfare outside of Medicaid at $1.2 billion. Massachusetts could opt to cut a portion of Medicaid spending, should the legislators so choose. This would, in effect, cause the state to relinquish the federal subsidy that permits it to recoup 50% of Medicaid spending.

The cost for fire protection in the state is also high compared to the comparable states and the national average. At $386 per household, Massachusetts had the fourth highest cost in the continental United States in FY2006. There is evidence that the state overspends in this category, exemplified by recent high-profile disability claims and the fact that "74 percent of Boston firefighter retirements between 2005 and 2007 were due to accidental disability, more than twice the rate of similarly sized cities."[22] By bringing this category into line with the comparable states, Massachusetts could save $65 per household, or 1.6% of the lost income tax revenue.

The third expenditure category that could be cut is "Housing and Community Development," which comprises "construction, operation, and support of housing and redevelopment projects and other activities to promote or aid public and private housing and community development," including Section 8 housing. In 2006, Massachusetts

[21] National Association of State Budget Officers, "State Expenditure Report 2006," (Fall 2007): http://www.nasbo.org/Publications/PDFs/fy2006er.pdf. (accessed September 28, 2008).
[22] Donovan Slack, "Investigated Fire Chief Drops Claim," *Boston Globe*, August 15, 2008, http://www.boston.com/news/local/massachusetts/articles/2008/08/15/investigated_fire_chief_drops_disability_claim/.

spent $596 per household, the third highest in the continental United States, behind only New York and California, while the national average was $301 per household. The comparable states spent a normalized average of $338 per household in FY2006. By reducing Massachusetts spending in this category by $258 per household, the state could save another 6% of the income tax revenue that Question 1 would eliminate.

Massachusetts total expenditures are $5,337 per household above the six comparable states in normalized terms. Beyond the three items discussed above, which would reduce spending by $1,570 per household, the state could trim other spending categories to the comparable state levels and still remain above the national average in normalized dollars. These categories include spending on sewerage at $411 per household and the "other and unallocable" category at $1,959 per household.

According to the Census, the "other and unallocable" category includes "activities not applicable to other general functions… or cannot be separated into specific functions."[23] Included in the category are expenditures by state and local military, central service agencies, purchases of computer equipment for government use, job training, non-need based senior citizen aid, geo-mapping services and various other programs. If these expenditure categories were reduced to the normalized average of the six comparable states, governments could save $55 per households on sewerage expenditure, and $1,190 on "other and unallocable" expenses. These two savings would account for 30% of the income tax elimination.

Each of the revenue and spending categories reviewed comprise both state and local expenditures. While the immediate effect of Question 1 would be to reduce state, but not local, revenues, we cannot consider its impact without also considering state aid to municipal governments. In FY2006, the state transferred $9.5 billion to local governments, which accounts for 14% of the state and local government spending. Thus, reductions in spending could be borne by local as well as state government.

[23] U.S. Census, *Government Finance and Employment Classification Manual*.

In our scenario, local government experiences a cut in local aid equal of $4.058 billion, to be accounted for though spending reductions mentioned, with $319 million to be replaced through an increase in property taxes. The reduction of $4.058 billion in local aid would supplement state level spending cuts of $6.139 billion and revenue increases of $3.430 billion to account for the lost PIT receipts in FY2011.

Table 3 details the expenditure cuts, and their expected amounts for FY2011. The reductions suggested here would account for 68% of the state PIT revenue, $3,529 per household in FY2011. That leaves a hole of $4.4 billion, or $1,659 per household in the FY2011 state budget, to be made up by further spending cuts, as well as tax increases.

Table 3: Income Tax Revenue and Spending Cuts, FY2011

	Per Household($)	% of PIT	Total ($000)
Spending Reductions			
Public Welfare	1,563	30	4,106,370
Fire Protection	81	2	214,045
Housing and Community Development	323	6	849,594
Sewerage	69	1	181,115
Other and Unallocable	1,492	29	3,918,669
Total	3,529	68	9,269,792
Income Tax Cut	(5,188)	(100)	(13,627,672)
Difference	-1,659	32	4,357,880
Totals may not sum do to rounding			

The State Prevailing Wage

It is not necessary for government to cut services if it is willing to cut costs. There are many areas in which Massachusetts government could cut costs if it had the political will to take on the task. By cutting the health-care and pension costs of state employees, for example, both state and municipal government could save hundreds of millions of dollars. Additional money could be saved by repealing the Pacheco law, cutting back further on police details, repealing the Quinn Bill and eliminating other such notorious cost-raising practices and policies.

We estimate that state and local government could save $1-2 billion a year by eliminating inefficiencies in the way it does business. We factor only one cost saving into our

analysis. This is the reduction in construction costs that would be possible were the state willing to modify the prevailing wage law.

The state prevailing wage law is loosely based on the Federal Davis-Bacon Act (DBA) which dictates the minimum wage paid to construction workers on federal jobs. While it might be reasonable to assume that the "prevailing wage" according to this law measures the actual wage that prevails in a market, this would be incorrect. In reality there are three different prevailing wages to consider.

The first prevailing wage is the wage that actually prevails in the marketplace, or the average wage that all workers are paid to do a specific job in a specific geographical area, as determined by the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor. The DBA prevailing wage is calculated by the Wage and Hour Division of the DOL. This wage is based on poorly designed surveys that favor local union wages and is used as the basis for the DBA. The state prevailing wage, under Massachusetts law is set to the unions' collectively bargained wage and is generally higher than the BLS wage and the DBA wage.

By comparing the calculations of the average for nine job categories of the three "prevailing wages," BHI found that the BLS wage for the Boston area is $27.09 per hour, while the Federal DBA wage is $37.45 per hour and the state prevailing wage is $58.84 per hour, or more than $122,000 annually.[24] In short the state prevailing wage law causes construction workers on state projects to be paid twice the average construction worker's market wage. Thus inflated wages drive up the cost of public building projects in Massachusetts.

One way that the state could accommodate Question 1 would be to define the state prevailing wage to be equal to the Davis-Bacon wage. According to the FY2008 budget, the state will spend nearly $1 billion construction projects. If Massachusetts adopted the

[24] The nine categories are brick mason and block mason, carpenters, cement masons and concrete finishers, electricians, painters, in both construction and maintenance, plumbers, pipe fitters and steamfitters, roofers, sheet metal workers and structural iron and steel workers.

federal DBA wage, it could expect to pay $177 million less on labor costs for these projects.[25] Making a conservative estimate that state spending will be kept constant in nominal terms, this change would account for $87 per household, or 1.7% of the income tax revenue in FY2011.

The State Foundation Budget

With the Massachusetts Education Reform Act of 1993, the state government took control of setting school curriculums and holding local schools accountable for student performance. It substantially increased state aid to local education. These changes led to the creation of a state Foundation Budget which is calculated to "assure fair and adequate minimum per student funding for public schools".[26]

This budget takes into account various factors, such as cost of living, inflation, the number of pupils in the school system and various other factors to determine an "adequate" budget for school systems. Once the Foundation Budget has been set, the municipality is reviewed, using a second, "need" formula, based on an area's income, property values and other variables. Using these criteria the state government covers a percentage of the budget for the fiscal year.

In FY2008 local school districts spent $317 million above the Foundation Budget. However, the state is not required to supply funding above and beyond what is necessary for schools to meet their Foundation Budget. A second saving, of an unknown size, could be incurred by changing the "hold harmless provision," which does not allow state aid to be less than the aid preceding year. Between FY2001 and 2002, 138 school districts experienced enrollment decreases, but their aid was not reduced.[27] Since state aid cannot be reduced year to year, we conservatively assume that state aid would not

[25] Caroline Henriques, Department of the Comptroller, e-mail to the authors in response to a request for public information, August 13, 2008.
[26] Massachusetts Department of Education, "The Massachusetts Foundation Budget, Chapter 70, School Funds and State Aid for Public Schools, Section 1. Legislative Intent," http://finance1.doe.mass.edu/chapter70/chapter_cal.doc (accessed October 1, 2008).
[27] Report of the Foundation Budget Review Commission, (June 2001): http://www.mass.gov/legis/reports/foundation.htm#exec (accessed September 1, 2008).

exceed the Foundation Budget in real terms in FY2011, leading to a $379 million, or $144 per household, of saving in FY2011.

Accounting for the Difference

By cutting spending in the designated areas, strictly adhering to the Foundation Budget and reforming the prevailing wage, the state could accommodate $9.879 billion ($3,761 per household) or 72.5% of the projected income tax revenue loss in FY2011. The remaining gap of $3.749 billion ($1,427 per household) would have to be made up by raising other taxes.

The Sales Tax

As in other states, the Massachusetts sales tax contains numerous exemptions, most aimed at reducing the tax code's regressivity and many the result of arbitrary choices concerning what is taxable and what is not. Tennis shoes, baby oil and single muffins are not taxed, for example, while bowling shoes, baby lotion and muffins sold in batches of six or more are. Our scenario assumes that four broad categories currently exempt from taxation would be taxed:[28]

1.) Apparel and Fabric
2.) Food and Meals
3.) Health Care products
4.) Home and Household Items, including electricity, heating fuel and telecommunications services.

In FY2006 Massachusetts could have collected $955.4 million on these tax exempt items.[29] Should these exemptions be removed, it could account for up to a $955.4 million revenue increase before accounting for behavioral effects.

[28] Massachusetts Department of Revenue, "A Guide to Sales and Use Tax," http://www.mass.gov/Ador/docs/dor/Publ/PDFS/sales_use08.pdf (accessed October 1, 2008).
[29] Executive Office for Administration and Finance, Commonwealth of Massachusetts, "Tax Expenditure Budget, FY2006," (2006): http://www.mass.gov/Ador/docs/dor/Stats/TEB/TEB2006.pdf.

As we note above, Massachusetts raises $1,580 per household in sales tax revenue, compared to the national average of $2,220 per household in FY2006. It follows that the state could raise the sales tax in order to plug the remaining revenue gap. An increase of the sales tax from 5% to 7%, and an elimination of the above-mentioned exemptions, would raise an additional $3.430 billion to state revenue in FY2011. This increase would place Massachusetts' sales tax rate on par with our neighbor Rhode Island but higher than other bordering states of Vermont and Connecticut, at 6%, New York at 4% and, of course New Hampshire with no sales tax.[30]

Currently, the Massachusetts Bay Transportation Authority (MBTA) and the Massachusetts School Building Authority (MSBA) each receives 20% of sales tax receipts excluding meal tax receipts. In our scenario, these authorities would still receive payments, based on current levels of support.

In FY2007 the MBTA received $733.963 million from the state sales tax trust. Over the course of the last six years MBTA revenue from the sales tax has increased at a rate of 2.02%. We assume that MBTA and MSBA revenue would not be tied to sales tax receipts, which can vary greatly year to year, but would be set to grow at 2.02% annually, and then receive funding from general revenues.

These measures – reducing spending, reducing exemptions in the sales tax, modifying the state prevailing wage, sticking to the Foundation Budget and raising the sales tax rate – would account for 97% of the total PIT revenue that would be eliminated. Yet a gap of $319 million, or $121 per household, would remain.

Transfers to the Local Government and Local Property Tax Revenue

This final $319 million could be achieved through a tax swap. The state would further cut state aid to local municipalities, and local voters could compensate by overriding Proposition 2½ and increasing local property taxes.

[30] Federation of Tax Administrators, "State Sales Tax Rates," January 1, 2008, http://www.taxadmin.org/fta/rate/sales.html.

In a review of FY2006 total taxable property values residents paid, on average, a mil rate of $11.83. A mil rate is the amount of tax paid on each $1,000 of assessed property value. If local voters decided to replace the full $319 million, FY2011, in local aid cuts mil rates would increase to $12.10, or by 2.26%.[31] We assume that this amount would be raised though increased property taxes and that local government would not implement any spending cuts beyond those required by the assumed reduction in local aid less the increase in property taxes.

Table 4 shows the total results of our combination of proposals. Spending cuts would total $9.879 billion, of which local governments would make $3.740 billion and state government $6.139 billion. The state would raise an additional $3.430 billion through the sales tax and local governments would raise $319 million through the property tax. The local government would lose $4.058 billion in state aid. Local governments would choose to restore a portion of the local aid cut through property tax increases and Proposition 2½ overrides.

Table 4: "Best-Case" Spending Cuts and Tax Increases, FY 2011 ($000)

Spending Cuts and Tax Increases	State	Local	Total
Spending Cuts			
Public Welfare	4,082,955	23,414	4,106,369
Fire Protection	0	214,045	214,045
Housing and Community Development	197,376	652,218	849,594
Sewerage	52,225	128,890	181,115
Other Unaccountable	1,576,814	2,341,855	3,918,669
Foundation Budget	0	379,130	379,130
State Prevailing Wage	229,819	0	229,819
Total Spending Cuts	6,139,189	3,739,552	9,878,741
Local Aid Cut	4,058,075	-4,058,075	0
Total Cuts	10,197,264	-318,523	9,878,741
Tax Increases	0	0	0
Sales Tax	3,430,409	0	3,430,409
Property Tax	0	318,523	318,523
Total Tax Increases	3,430,409	318,523	3,748,932
Total Spending Cuts and Revenue Increases	13,627,673	0	13,627,673

[31] Massachusetts Department of Revenue, "Property Tax Information," http://tiny.cc/iCKdm, (accessed October 1, 2008).

Fiscal and Economic Dynamic Effects

The evidence shows that state and local level tax changes have significant effects on state economic activity.[32] In order to analyze the sweeping changes in the Massachusetts system of taxes and spending that Question 1 would encompass, BHI used a "Computable General Equilibrium" (CGE) model called Massachusetts-STAMP (for State Tax Analysis Modeling Program). Massachusetts-STAMP formalizes relationships between industrial sectors, households, governments and the rest of the world, enabling quantifiable comparisons between the baseline (no change) case and the change scenario.[33] The purpose of the model is to answer questions about what would happen to the Massachusetts economy under a variety of tax changes chosen by the user. [34]

The model permits us to conduct a dynamic revenue analysis, which differs from a static revenue analysis in that it takes account of the secondary effects of tax changes. Thus, a reduction in the income tax is shown to increase labor supply as workers respond to the increase in the after-tax reward for working in Massachusetts and as state employers respond to the resulting decrease in labor costs.

To simulate the tax changes outlined above, we used STAMP to model the removal of the state income tax, the increase in the sales tax to 7%, the expansion in the sales tax base and the increase in local property taxes by 0.267 mils or 2.26%. Table 5 shows the results.

[32] Timothy Bartik, *Who Benefits from State and Local Economic Development Policies?* (Kalamazoo, MI: Upjohn Institute, 1991).
[33] See http://www.beaconhill.org/STAMP_Web_Brochure/STAMP_IntroductionMS.html.
[34] Ibid.

Table 5: "Best-Case" Dynamic Effects, FY 2011

Economic Changes	
Private Employment	99,969
% Change	3.18
Government Employment	-19,513
% Change	-3.96
Total Employment	80,456
% Change	2.15
Investment ($000,000)	-172.92
% Change	-0.23
Real Disposable Income per Capita ($)	525.4
% Change	1.89
Real Disposable Income per Household ($)	1,461
% Change	2.45

The state would see the creation of 99,969 private sector jobs and a loss of 19,513 public sector jobs, for a net employment increase of 80,456. The removal of the income tax would shrink the tax wedge – the difference between the take home pay of workers and the cost of their labor to firms in Massachusetts. As a result, the equilibrium level of employment would rise as people entered the labor market owing to the rise in take-home pay and as firms took advantage of reduced labor costs.

Investment would fall by 0.23%, due to the fact that the elimination of the income tax would make labor cheaper relative to capital. For example, it would be more efficient to hire a parking lot attendant than to install a high tech gate and cheaper to hire more software writers than to buy more computers. Higher property taxes would also discourage investment.

The gross wage rate would drop by $2,919 per person per year, or 5.54%, due to the shrinkage in the tax wedge (which is now equal to wage income minus just federal income and payroll taxes). Companies could reduce what they offer to employees even as take-home pay rises. In turn, the reduction in taxes would induce some workers to enter the labor market, thus increasing the supply of labor and pushing gross wages down. While the gross wage rate decreased, disposable income would increase by an average of $525.4 per person, or 1.89%, leaving residents as a whole better off.

The loss of state income tax deductions from Federal tax payments is difficult to determine. Currently Massachusetts residents can deduct state PIT payments or state sales tax payments from their federal income tax liability.[35] Typically the majority of residents would deduct state PIT, as that would be higher than their sales tax payments. Under an income-tax free scenario, itemizers will choose to deduct state sales tax payments instead. The model incorporates the loss of the PIT deduction but does not account for the sales tax deduction. By not accounting for the sales tax deduction, the model biases downward the measured gains in after-tax income, in jobs and in other economic benefits.

[35] Internal Revenue Service, "Sales Tax Deduction Calculator," http://www.irs.gov/individuals/article/0,,id=152421,00.html, (accessed October 1, 2008).

Conclusion

Question 1 gives voters a chance to reveal their preferences about the size of government in Massachusetts and about the way they pay taxes. By voting "No" on Questions 1, voters would signal their preference for the current size of state government and the current tax system. A "Yes" vote would signal their preference for smaller government and a willing to shift from income taxes to sales and property taxes.

We have offered one plausible solution that would both reduce the tax burden on residents while maintaining a level of spending that is consistent with other, "comparable" states. The elimination of $13.079 billion in state and local spending combined with an expansion of the sales tax base and rate would account for 96% of the lost revenue. The final 4% would be accounted for though a rewriting of the state prevailing wage and an increase of property taxes at the local level.

This combination of spending cuts, expenditure savings and tax increases provides a road map for finding a way toward implementing Question 1. It also demonstrates the possibility of generating significant economic benefits. In addition to the creation of 80,456 jobs, residents would experience an increase in after-tax income of $1,461 per household.

These results may seem surprisingly high. But they are not, on close examination, so high at all. There are about 153,000 unemployed workers in Massachusetts. But our analysis does not imply that Question 1 (combined with the other changes assumed here) would cut the unemployment rate by more than 50%. The reason is that Massachusetts has a relatively low labor-force participation rate.[36] Hence many of the new jobs would be taken by new entrants to the labor force.

[36] See Appendix for details.

This study shows that both proponents and opponents of Question 1 have made exaggerated claims to support their case and have sometimes, as well, ignored legitimate claims made by the other side. Specifically, there are not enough inefficiencies in government to implement Question 1 without steep cuts in services. Also the increase in after-tax income is only about 40% of that promised by the Question 1 proponents.

At the same time, after making the necessary cuts, Massachusetts would still match up well with comparable states in terms of its willingness to provide public services. There would be substantial economic benefits, perhaps greater benefits than the proponents have claimed and certainly greater benefits than the opponents have recognized. Even with higher sales and property taxes, an income-tax free Massachusetts would experience a substantial expansion in economic activity.

There are additional economic effects that argue either for or against Question 1. First, our assumed cost saving is very conservative. Should the state be more aggressive about cutting costs, the necessary service cuts and tax increases would be smaller.

On the other hand, any new taxes would have unwanted effects not captured here. Sales taxes and, to a lesser degree, property taxes are considered to be regressive. Sales taxes drive retail business to other states. New Hampshire would steal a great detail of retail business from Massachusetts firms. The need to maintain roads and bridges may necessitate a rise in tolls or the gas tax, irrespective of Question 1. There would be adjustment costs attendant to reducing public sector employment by some 20,000 jobs. Some recipients of government aid would leave the state.

Finally, the scenario explored here is only one of many that could unfold, once Question 1 was implemented. There is no single "best" scenario. Yet, we believe that we have come close to showing what state and local government could do, and would do, should Question 1 be approved and then allowed to stand by the legislature.

Appendix

Methodology

We base our recommendations for service cuts on the most recent U.S. Census numbers from "State and Local Government Finances 2005-06."[37] In the comparison of spending per household by state, we considered either high, or low, spending to be outside the range of the average plus, or minus, one standard deviation for the continental 48 states. This means that normal spending would encompass approximately 68% of the states on either side of the average spending. High spending would be approximately the highest 16% of states while low would roughly be the lowest 16% of states per household.

The hourly wages derived for the three different prevailing wages is based on the weighted wage, bases on employment, for nine occupations in the Boston area. Using wages supplied by the U.S. Bureau of Labor Statistic's Occupational Employment and Wage Estimates, we were able to calculate a market wage of $27.09 per hour for these nine construction occupations.[38] Using the same nine occupations we calculated the federal and state prevailing wages, $37.45 and $58.84 respectively, based on their published wages.[39] When these wages are applied to the $972 million construction budget, 50% of which is assumed to be labor, the state would have saved $177 million if DBA wages were used instead of state prevailing wages.

[37] U.S. Census Bureau, "Federal, State and Local Governments, Fiscal Year 2006," http://www.census.gov/govs/www/estimate06.html (accessed October 1, 2008).
[38] U.S. Bureau of Labor Statistics, "May 2007 State Occupational Employment and Wage Estimates; Massachusetts," http://www.bls.gov/oes/current/oes_ma.htm#b47-0000 (accessed October 1, 2008).
[39] U.S. General Printing Office, "Davis-Bacon Act, General Decision County Index for MA (February 2008," http://www.gpo.gov/davisbacon/ma.html (accessed October 1, 2008). See also Executive Office of Labor and Workforce Development, Division of Occupational Safety, "Prevailing Wage Rates for Boston 03-05-08."

Employment Effects: An Alternative Measure

Another way to measure the employment effects of the scenario considered here is to compare the labor participation rate of Massachusetts with that of the nine states (excluding Alaska) that have no income tax.[40] The results are listed in Table 6.

Table 6: Non-Income Tax States and Employment

	Working Age Population	*Labor Force*	*Labor Force Participation Rate (%)*	*Employment*	*Employment Rate (%)*	*Unemployment*	*Unemployment. Rate (%)*
FL	14,693,365	9,147,797	62.26	8,779,299	95.97	368,498	4.03
NH	1,056,521	738,314	69.88	712,048	96.44	26,266	3.56
SD	622,827	442,555	71.06	429,495	97.05	13,060	2.95
TX	17,994,671	11,492,422	63.87	10,992,828	95.65	499,594	4.35
WA	5,117,600	3,408,191	66.60	3,253,475	95.46	154,716	4.54
WY	412,679	287,743	69.73	279,090	96.99	8,653	3.01
NV	1,976,966	1,335,852	67.57	1,271,472	95.18	64,380	4.82
TN	4,761,712	3,036,736	63.77	2,893,748	95.29	142,988	4.71
Average			66.84		96.01		3.99
MA	5,196,652	3,408,197	65.58	3,255,611	95.52	152,586	4.50
Mass Alt		3,473,501	66.84	3,334,740	96.01	138,761	3.99

This permits us to make a rough estimate of the effect of an elimination of the income tax on labor force participation. The five states without a PIT experience a labor force participation rate of 66.84% on average. The range of rates includes a low of 62.26% in Florida – likely affected by the high retiree population – to a high of 71.06% in South Dakota. Should Massachusetts, with a 65.58% labor force participation rate, experience an increase to 66.84%, there would be an increase in employment of 79,129 jobs.

[40] The states are Florida, New Hampshire, South Dakota, Tennessee, Texas, Washington State, Wyoming and Nevada. Alaska was left out due to the high amount of revenue derived from mineral resources.

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About the Authors

David G. Tuerck is Executive Director of the Beacon Hill Institute for Public Policy Research at Suffolk University where he also serves as Chairman and Professor of Economics. He holds a Ph.D. in economics from the University of Virginia and has written extensively on issues of taxation and public economics.

Alfonso Sanchez-Penalver is an Economist at the Beacon Hill Institute. He holds a Master of Science degree in Finance from Boston College, and a BSBA in Finance from Suffolk University. He is currently enrolled in the PhD program in Economics at Suffolk University. He has an extensive career in web programming and project management, as well as in accounting and financial analysis.

Paul Bachman is Director of Research at BHI. He manages the institute's research projects, including the STAMP model and conducts research on other projects at the BHI. Mr. Bachman has authored research papers on state and national tax policy and on state labor policy and produces the institute's state revenue forecasts for the Massachusetts legislature. He holds a Master Science in International Economics from Suffolk University.

Michael Head is a Research Economist at BHI. He holds a Master of Science in Economic Policy from Suffolk University.

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THE BEACON HILL INSTITUTE
FOR PUBLIC POLICY RESEARCH
Suffolk University
8 Ashburton Place
Boston, MA 02108
Phone: 617-573-8750 Fax: 617-994-4279
bhi@beaconhill.org
http://www.beaconhill.org