



## *The Effects of the Massachusetts Sales Tax Holiday on the State Economy*

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## Executive Summary

In recent years, the state legislature has provided for a sales tax holiday weekend in August. In 2014, the holiday took place on Saturday and Sunday, August 16-17. The holiday suspends the sales tax for purchases of up to \$2,500. The question of whether to provide for a 2015 holiday is before the Massachusetts legislature.

As we show below, Massachusetts retailers generally favor the idea of a sales tax holiday. Facing growing competition from the Internet and situated, as many are, in close proximity to tax-free New Hampshire, the holiday has become an important lifeline for them. The popularity of the holiday among retailers is attested to by the fact that many state retailers promise tax-free sales immediately before and after the holiday. Many offer to absorb the tax on higher priced items. We provide samples of retailer opinion of the holiday below.

In order to provide data that will assist the legislature in considering this matter, the Retailers Association of Massachusetts asked the Beacon Hill Institute (BHI) to analyze the effects of the holiday on the state economy. In preparing our report we utilized the following data sources:

- A poll of 1,467 business members of the Association;
- A poll of 450 Massachusetts households conducted by Opinion Dynamics for BHI at the request of the Association;
- BHI's State Tax Analysis Modeling Program (STAMP) for Massachusetts, which contains detailed inter-industry data on the state economy; and
- A report by the state Department of Revenue on the August 2014 holiday and the Massachusetts Blue Book on revenue collections.

Our findings are summarized in Table 1.

**Table 1: Economic Results of a Massachusetts Sales Tax Holiday in 2015**

<b>Economic Indicators</b>	<b>Mean</b>	<b>Low</b>	<b>High</b>
Retail Sales Increase (\$ millions)	168	112	231
Private Employment (jobs)	627	435	860
Investment, (\$ millions)	50	35	69
Real Disposable Income (\$ millions)	37	26	51
Net Change in Tax Revenue (\$ millions)	(19.5)	(20.1)	(18.7)

This table presents a range of estimates that are within the margin of error for responses to the household survey mentioned above. In summary, we expect that a 2015 sales tax holiday would bring \$168 to \$231 million in retail sales into the Commonwealth – sales that would otherwise go to the Internet or New Hampshire retailers. The injection of these sales would create the equivalent of 627 to 860 new full-time jobs, \$50 to \$69 million in new investment and \$37 to \$51 million in new disposable income. When we adjust for the new revenues that would be brought into the Commonwealth by these changes, we find that the revenue loss would be \$18.7 to \$20.1 million.

## Introduction

Massachusetts retailers must charge 6.25 percent in sales tax on all purchases, putting them at a 6.25 percent price disadvantage compared to online and New Hampshire retailers. The average American consumer will spend \$1,738 on online shopping per year by 2016 (Forrester research).<sup>1</sup> At a state sales tax rate of 6.25 percent, this means that the average consumer could avoid paying up to \$109 in sales taxes per year through online purchases.

In most recent years, the state legislature has provided for a sales tax holiday weekend (Saturday and Sunday) in August, a generally slow time for retailers. The holiday suspends the sales tax for purchases of up to \$2,500. The holiday has proven popular with shoppers and, as it appears, most retailers. Retailers get a boost during one of their slowest times of the year, while shoppers effectively enjoy a 6.25 percent discount on their purchases with back-to-school needs just around the corner.

There is no guarantee that the legislature will approve a sales tax holiday for August 2015. When the state faces a budget gap, as it does now, many legislators and various political constituencies want to skip the sales tax holiday for a year, as the state did in 2009.

Earlier this year, the state faced a reported \$768 million deficit for fiscal 2015. That deficit has been closed by a number of spending adjustments.<sup>2</sup> In his FY2016 budget, Governor Baker proposes to close an anticipated deficit of \$1.8 billion by slowing the growth in state spending

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<sup>1</sup> Gilon Miller, "Consumers Will Spend \$327 Billion Online in 2016: Forrester Research," Upstream Commerce, (March 12, 2012) <http://upstreamcommerce.com/blog/2012/03/12/consumers-spend-327-billion-online-2016-forrester-research-projection>.

<sup>2</sup> Governor's Press Office, "Baker-Polito Administration Announces Plan to Close Fiscal Year 2015 Budget Gap," (February 3, 2015) <http://www.mass.gov/governor/press-office/press-releases/administration-announces-plan-to-close-fy15-budget-gap.html>.

from 7.8 percent in FY2015 to 3 percent.<sup>3</sup> It remains possible, however, that the legislature will consider it imprudent to reauthorize the sales tax holiday for 2015.

The question of whether to reauthorize the holiday is not just about deficits and tax revenues, however. To be sure, its effect on tax revenues is important, and, as shown in Table 1, we estimate that effect. Also important, however, are its effects on retail sales, jobs, business investment and household income. Table 1 shows that the holiday provides a substantial boost to the state economy – a consideration that should be important to legislators as they consider the issue.

To get a sense of how the holiday affects Massachusetts retailers and of how, and to what degree, they support its continuation, we asked the Retailers Association to get input directly from its members. Sixty-three businesses responded to a survey distributed by email to Association members. The surveyed members were given four days to reply. We summarize the results, by question, as follows:

- “How do your sales on a Sales Tax holiday weekend compare to a typical summer weekend?”
  - 42 said they experienced a gain;
  - 18 said the experienced no gain or did not answer;
  - 3 said they experienced a loss;
  - The average gain over all respondents was 180%.
  
- “Does your staffing increase for a Sales Tax Holiday? If yes, by how much?”
  - 20 said yes;
  - 34 said no;
  - 9 did not answer;
  - The average reported increase in staffing over all respondents was 25%.
  
- “What percent of your total annual sales are attributable to the Sales Tax Holiday, including additional sales on discounts offered before and after the event and including any sales of goods priced over \$2,500?”

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<sup>3</sup> Governor’s Press Office, “Governor Baker Unveils Fiscal Year 2016 Budget Proposal,” (March 4, 2015) <http://www.mass.gov/governor/press-office/press-releases/fy2015/governor-baker-unveils-fiscal-year-2016-budget-proposal.html>.

- 50 provided an answer;
  - 13 did not provide an answer;
  - The average answer over all respondents was 4%.
- “Do you offer your customers the equivalent savings (6.25%) before and after the Sales Tax Holiday, as well as on any goods priced over \$2500 during the event?”
    - 15 answered yes;
    - 38 answered no;
    - 10 did not answer.
- “Where do you believe you primarily obtain sales from during the Sales Tax Holiday?”
    - 38 said “from other taxable sales weeks”;
    - 8 said “from tax-free Internet or New Hampshire”;
    - 17 did not answer.
- “Do you have any operations in New Hampshire or any other neighboring state? If yes, briefly describe any impact the Massachusetts Sales Tax Holiday has on those locations, by location.”
    - 45 answered no;
    - 5 answered yes; one of these said that there was no impact “of any significance”; the other said that “sales will be reduced for that weekend; the remaining two gave no details.
    - 13 did not answer.

The survey concluded with an open-ended question: “Please offer any additional comments you might have that will permit our consultant to assess the impact of the holiday on your Massachusetts sales.”

Of the respondents, 33 retailers provided a comment. Of these, 20 favored continuation of the holiday, while nine retailers did not. Four retailers were indifferent.

Some of the positive responses follow:

- “Massachusetts consumers would prefer to shop in Massachusetts. This event gives consumers a reason NOT to shop on the internet or go to New Hampshire. Additionally, they will tend to spend more than they otherwise would have. This

combination provides us with sales that we never would have received, providing a benefit to our employees, customers and the Massachusetts government.”

- “Anytime our government can do something like this to help the economy of our retail sector they should do it.”
- “This event is very critical to our summer business. We would not have anywhere near the sales if it wasn't for the holiday. As a result we are able to put a lot of extra people to work and pay a significant amount of overtime. This puts a lot of disposable income in our employees’ pockets which is great for the Massachusetts economy.”
- “This is a very important event according to our customers, and they don’t seem inclined to let it go.”
- “I strongly believe that the tax-free Holiday Weekend helps support, small business owners. I would like to see more time given prior to the weekend for promotion and advertising, not just making the decision to pass the Tax Holiday weekend the week before it is scheduled.”
- “The sales tax holiday has a significantly positive affect on our business. Customers that were on the fence about buying finally decide to come out that weekend. It gives us a big boost of needed cash to keep our business running.”
- “This weekend delivers a much needed boost to normally a languid retail period in the furniture business. It delivers a needed boost to our cash flow and allows us to safely build our inventory for the fall. BTW- in 2014 87% of what we sold was made in the USA.”
- “Sales tax holiday is a huge infusion of revenue for us each year. With the extremely poor winter we had, I hope legislators will vote to keep the sales tax holiday this year. We really need to increase our sales. This year we are running 15-20% less than last year in sales.”

Not all responses were positive:

- “The sales tax holiday has created more problems than benefits for us. Business is non-existent three weeks before and two weeks after. As a result, five weeks of business are crammed into two days, and the total amount of sales does not come close to five normal weeks of summer business.”
- “Smaller retailers do not benefit from this holiday - mostly the big box stores for appliances, etc. so shoppers are diverted from shops like mine. Apple seems to do quite

well, but is it really necessary for them to rake it in at the expense of others? Only people who really benefit are shoppers looking for higher ticket items.”

- “I think the sales tax weekend just shifts sales from which would have happened either prior (and they waited) or after (and they purchased early). I don't believe it generates any additional revenue.”
- “I wish they never started it. The amount that is written that weekend is only spread out over a 4 week period. There are no sales written 3 weeks before and no sales for 1 week after. There is no cash flow for 3 weeks before.”

Based on the survey results, it is safe to say that retailers in general support the holiday and experience a significant gain in sales “compared to a typical summer weekend.” One retailer reported an 850% gain in sales. The question is: what fraction of that gain came from the Internet or New Hampshire retailers, as opposed to shoppers just buying goods they would have bought anyway? Table 1 above provides our answer to that question. We next outline our approach to providing an answer.

## **Estimates**

Purchases made over the holiday will have two sources: (1) purchases that consumers would have made without the sales tax holiday, but that are pulled forward or pushed back over time to the sales tax holiday weekend (2) purchases that would have been made tax free in New Hampshire or over the Internet in the absence of the holiday and (3) impulse purchases made while consumers are in stores on the holiday weekend. The latter two purchase types have a positive impact on the state economy but have no effect on sales tax revenues since they otherwise would have been made tax free.

### *The Economic Impact*

The first step to determine the economic effects of the holiday is to determine the effect of the sales tax holiday on the spending plans of Massachusetts’ households. BHI bases its analysis on the results of a poll of 450 Massachusetts consumers conducted by Opinion Dynamics commissioned by the Retailers Association of Massachusetts. The poll questions are quoted verbatim here, the consumer responses and the percentage of the total responses of each are listed below.

Many times over the last several years, Massachusetts has held *August Sales Tax Holidays* to encourage consumers to buy locally instead of out-of-



state. During these tax-free periods, have you ever made *major* in-state purchases which you *might* have made in New Hampshire or on the Internet, rather than in Massachusetts, *without* these tax-free holidays? [IF "YES"] About how much—on average—would you say you spent on those major purchases?

Response	Percentage
Yes, (Less than \$100)	1
Yes, (\$100-\$199)	2
Yes, (\$200-\$499)	4
Yes, (\$500 or more)	23
Yes, (not sure/refused)	1
No, never made major tax-free holiday purchases (Don't know/Refused)	68 -

If the Massachusetts Legislature and Governor re-authorize future Sales Tax Holidays, how likely will you be to participate by shopping nearby and keeping your consumer dollars local instead of buying online or in New Hampshire?

Response	Percentage
Very likely	48
Somewhat likely	24
Not very likely	17
Not likely at all	11
(Don't know)	1

The results of the first question show that 31 percent of consumers stated that they had made major purchases that they *might* have otherwise made on the Internet or in tax free” New Hampshire and 68 percent indicated that they had not. Furthermore, 23 percent indicated that they spent over \$500 on these in-state purchases over the sales tax holiday, while another seven percent spent less than \$500.

The second question asks about consumer’s purchasing plans under the scenario that state politicians enact future sales tax holidays. Here, the poll finds that 48 percent of consumers are “very likely” and 24 percent of consumers were “somewhat likely” to participate future

sales tax holidays. These results demonstrate the popularity of the sales tax holiday with Massachusetts consumers.

BHI used the results from the first question in the survey and the U.S. Census Bureau’s estimate of 2,530,147 Massachusetts households to project the impact of the holiday on the Massachusetts economy.<sup>4</sup> We assume that these percentages reflect total purchases that “might” have been made in New Hampshire or online were it not for the sales tax holiday and assign a 50% probability to account for the uncertainty. We multiply the number of households by 50% to get 1,265,074 households. Table 2 displays the results.

**Table 2: The Calculation of Induced Spending from the Sales Tax Holiday**

Purchases (\$)	Percent Response	Percent		Average purchase (\$)	Households (50%)	Total purchases			
		+4.6	-4.6			(\$)	+4.6	-4.6	
Less than 100	1	6	-	50	12,651	820,428	3,730,097		-
100-199	2	7	-3	150	25,301	4,171,002	12,900,009		-
200-499	4	9	-1	350	50,603	18,462,593	38,830,276		-
500 or more	22	27	18	500	282,111	145,245,662	174,342,352	116,148,971	
<b>Total</b>	<b>29</b>	<b>48</b>	<b>11</b>	<b>n/a</b>	<b>1,265,074</b>	<b>168,699,684</b>	<b>229,802,734</b>	<b>116,148,971</b>	

First, we multiply the total number of Massachusetts households by the percentage of respondents in each spending level to estimate the number of households for each spending category. For example, 1,265,074 households multiplied by one-percent of households in the less than \$100 category yields 12,651 households that spend less than \$100 on the holiday weekend that would have been spent outside Massachusetts.

Next, we assume the midpoint of each spending category represents the average amount spent by the households in each category. For the “\$500 or more” category, we use \$500 assuming that this figure represents a conservative estimate of this cohorts’ spending.

Finally, we multiply the average purchase by the numbers of households in each purchasing category to estimate the amount of retail sales returned to Massachusetts due to the sales tax holiday. For example, in the “less than \$100” category we multiply \$50 by 12,651 households to yield \$632,537 in retail sales returned to Massachusetts retailers for that category.

<sup>4</sup> See the Massachusetts profile from the U.S. Census at <http://quickfacts.census.gov/qfd/states/25000.html>.

We also need to capture the impulse purchases that consumers make while in the stores on the holiday weekend. A 2004 study estimated that the median impulse purchase was \$30; and another study found that 40% of consumers make impulse purchases.<sup>5</sup> We utilize the findings from these studies to estimate the value of impulse purchases over the holiday weekend.

First, we inflate the \$30 to 2015 dollars using the Bureau of Labor Statistics Consumer Price Index for the metropolitan Boston area to get \$37.13.<sup>6</sup> We then multiply the number of households in each category by the \$37.13 and by the 40% to estimate the value of impulse purchases. For the “less than \$100” category we multiply \$37.13 by 12,651 households and 40% to yield \$187,891 in impulse sales returned to Massachusetts retailers for that category. We add the returned sales of \$632,537 and the impulse sales to get \$820,428 in new sales generated by the holiday.

Next we calculate a range within which our spending estimates should fall, based on the margin of error for the poll. Since the poll includes 450 respondents the margin of error for which the poll would be plus or minus 4.6 percent. The margin of error measures the likelihood that the result from the poll is close to the results that a survey of the whole population Massachusetts would yield. We multiplied the respondent percentage results from the survey for each spending cohort by 4.6 percent and -4.6 percent.

BHI entered the results into the MA-STAMP model by cutting the sales tax rate by an amount that would generate the corresponding increase in retail sales in Table 2.<sup>7</sup> For example, we cut the sales tax by 0.10 percentage points to achieve an increase in retail sales of \$169 million. The use of a model such as MA-STAMP is an important tool for analysis since it provides output for jobs, investment and income. MA-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

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<sup>5</sup> The urge to splurge: study examines the practice of impulse buying.(Consumer Behavior--Impulse Buying ) HighBeam Business ( bebruary 1, 2004) <http://business.highbeam.com/410731/article-1G1-113232168/urge-splurge-study-examines-practice-impulse-buying>

A.T. Kearney Study Finds Brick & Mortar Stores Still Key to Consumers in the Omnichannel World, Market Wired (October 14, 2013) <http://www.marketwired.com/press-release/at-kearney-study-finds-brick-mortar-stores-still-key-consumers-omnichannel-world-1840725.htm>

<sup>6</sup> U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index, CPI databases, <http://www.bls.gov/cpi/cpiovrw.htm#item1>

<sup>7</sup> For a description about the STAMP model see [http://www.beaconhill.org/STAMP\\_Web\\_Brochure/STAMP\\_HowSTAMPworks.html](http://www.beaconhill.org/STAMP_Web_Brochure/STAMP_HowSTAMPworks.html).

description of the economic relationships among producers, households, governments and the rest of the world.

### *The Fiscal Impact*

The Massachusetts Department of Revenue (DOR) has issued reports on holidays held in August 2008 and August 2010 through 2014.<sup>8</sup> (There was no holiday in 2009.) The latest report states that it is aimed at calculating “the amount of forgone sales tax revenue as a result of the sales tax holiday that occurred on August 16 & 17, 2014.” Using credit card information from 2005, the department estimated that the 2014 holiday weekend sales equaled 10.11 percent of total monthly sales. Tax-exempt sales by this calculation came to \$507.2 million. The adjusted loss of tax revenue fell in the range of \$14.69 million to \$34.4 million, with a midpoint of \$24.56 million.

The department observes that, besides this estimate, it “is required by statute to provide an estimate of new revenues raised from personal and corporate income taxes and other sources as a result of the sales tax holiday.” In addressing that requirement, it estimates that these revenues will “probably be about \$3.25 million.”

To arrive at our estimate of lost revenue, we began with the sales tax revenue of \$301 million for August 2014 as reported in the state Blue Book for that month.<sup>9</sup> We inflate this number using the 4.3 percent increase in regular sales tax collections in fiscal year 2015 over prior year to yield \$314 million.<sup>10</sup> To obtain our estimate of taxable sales for August, we divided the \$314 million by the sales tax rate of 6.25 percent, which yields \$5.025 billion. We use the DOR estimate that the holiday comprises 10.11 percent of total taxable sales for the month of August by multiplying that percentage by \$5.025 billion, yielding \$508 million in sales-tax eligible sales over the holiday. We multiply the \$508 million by the sales tax rate of 6.25 percent to obtain the potential sales tax revenue loss to the state, which yields \$31.9 million.

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<sup>8</sup> See Department of Revenue, “Sales Tax Holiday 2014, Revenue Impact Analysis,” (January 9, 2015), <http://www.mass.gov/dor/tax-professionals/news-and-reports/other-reports/sales-tax-holiday-report/>.

<sup>9</sup> Department of Revenue, “Monthly Report of Collections and Refunds, August 2014,” <http://www.mass.gov/dor/docs/dor/stats/bluebook/fy2015/august.pdf>.

<sup>10</sup> Department of Revenue, “May Revenue Collections Total \$1.836 Billion: Monthly revenues \$228 million above benchmark, \$389 million for the year,” (June 3, 2015) <http://www.mass.gov/dor/tax-professionals/news-and-reports/press-releases/2015-press-releases/may-2015-revenue-collections.html>.

Since the \$508 million figure includes repatriated sales from New Hampshire and the Internet, we need to remove these sales from our fiscal impact estimate. To do so, we multiply our estimate of the repatriated and impulse sales of \$168 million by the sales tax rate of 6.25 percent which yields \$10.5 million. This is revenue that the DOR counts as lost revenue but is not. We subtract the \$10.5 million from the \$31.9 million to obtain \$21.4 million.

The repatriated and impulse sales of \$169 million will bring about increases in full-time equivalent jobs, income and retail profits as outlined above, which will, in turn, increase personal income, corporate income and other tax collections. Using our STAMP model we estimate these positive revenue effects as \$2.15 million and subtract this from the \$21.6 million to obtain the mean fiscal impact estimate of \$19.45 million. We repeated this process using the range of repatriated sales (\$224 million and \$112 million) in Table 2 to obtain our range of fiscal impact estimates.

It turns out that our estimate of the fiscal impact for a 2015 sales tax holiday is very close to that estimated by the state Department of Revenue for 2014. What we make explicit are the positive effects on the state economy that the sales tax holiday brings about.

## Conclusion

Numerous other states hold sales tax holiday to boost sales.<sup>11</sup> Sales tax relief during tax holidays are not a replacement for broader tax policies that expand the base and lower the rates. But tax holidays, properly structured to counter online sales and New Hampshire purchases, can provide benefits to retailers and consumers with little loss to the state treasury. Survey data that identifies consumer responses to the holiday provides convincing evidence of its benefits to the state economy.

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<sup>11</sup> Federation of Tax Administrators, “2015 State Sales Tax Holidays,” (May 26, 2015), [http://www.taxadmin.org/fta/rate/sales\\_holiday.html](http://www.taxadmin.org/fta/rate/sales_holiday.html).

## About the Authors

**Dr. David Tuerck**, (Ph.D., University of Virginia) is the Executive Director of The Beacon Hill Institute for Public Policy. He has published widely on economic policy issues and brings over three decades of experience as a working economist. An authority on public policy issues including state tax policy and analysis, welfare reform and the economics of regulation, he has made more than 100 television and radio appearances and has testified before the U.S. Senate Committee on Labor and Human Resources, Subcommittee on Children and Families, as well as various committees of the Massachusetts Legislature. He is past president of the North American Economics and Finance Association and a Heritage Foundation Policy Expert in economics.

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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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