



**DAILY SALES TAX COLLECTION  
SYSTEM COULD COST  
MASSACHUSETTS BUSINESSES \$1.2  
BILLION**

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## EXECUTIVE SUMMARY

This report estimates the cost to Massachusetts businesses of implementing a daily sales tax collection system by third party payment processors. Sections 94 and 95 of House Bill 3800, the Massachusetts state budget, direct the Commissioner of Revenue to promulgate regulations to accelerate sales tax remittance by requiring third party payment processors to remit sales taxes at substantially the same time that any non-tax amounts are paid (usually on a daily basis) on transactions using a "...credit card, debit card, or similar payment arrangements..." Implementation of such a system would require significant changes in the existing payment processing systems, requiring retailers, financial institutions, and payment processors to make substantial investments in new technology and personnel.

A daily sales tax collection system is not currently in place in any state, so there is some uncertainty about exactly what such a system would look like and what would be required to implement it. The estimates in this report are based on information collected from over 20 potentially impacted businesses by the State Tax Research Institute (STRI), as well as discussions with information technology professionals from financial institutions, payment processors, and small and large retailers. The cost estimates from these companies are based on experiences with other major systems integration projects involving both in-house and outsourced programming expertise.

The study also incorporates publicly available data on the number and size of retailers and

payment processors operating in Massachusetts. There are over 70,000 retail establishments in Massachusetts. In addition, there are over 700 third party payment processors operating nationally that would be affected by the proposed system.<sup>1</sup>

This study finds that implementing a daily sales tax collection system would cost businesses about \$1.2 billion in one-time, non-recurring costs and an additional \$28 million in annual recurring costs. This does not include the cost of integrating the systems of roughly 8,000 card-issuing financial institutions because the author lacked data to develop cost estimates for this sector. While these are very high-level estimates based on the best data available (albeit limited due to the short time frame provided), they nonetheless indicate that an accelerated sales tax remittance system would impose a significant financial burden on businesses operating in Massachusetts.

## RETAILERS

There are over 70,000 retailers operating in Massachusetts. Appendix A identifies these retailers by their North American Industry Classification System (NAICS) codes and segregates these retailers by employee size. A conservative estimate suggests that 95% of small retailers accept credit or debit card payments and are therefore connected to the payment processing system. Many retailers have recently incurred the cost of updating their POS hardware to accept EMV reader systems, the global standard that uses a chip reader to authenticate card transactions. Unfortunately, some of these small retailers

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<sup>1</sup> See, e.g., the Visa Global Registry of Service Providers, available at <http://www.visa.com/splisting/>.

could be required to upgrade their hardware again to implement the daily sales tax collection system. Since there is no existing daily sales tax collection system currently in operation to provide real-world data, it is necessary to make assumptions about how many retailers will need to replace their existing hardware and how many will only need to purchase new software updates to accommodate a new system.

*Small retailers.* For small retailers, this report assumes that 20% of the roughly 72,000 small retailers will need to upgrade their hardware and software at an average cost of \$1,000 per retailer and that 80% will need only software upgrades at an average cost of \$400 per retailer. Small retailers are defined as Massachusetts businesses with fewer than 100 employees. Using this methodology, the estimated cost for the small retail segment is \$35.5 million.

In addition to these direct technology costs, the following additional personnel-related costs were identified by small retailers responding to the STRI survey:

- Reconciling tax returns that include taxes remitted from customers who pay by check, cash, or payment instruments other than credit or debit cards with real time remittances from credit card payments;
- Setting up processes to deal with bad debt, refunds, and split-tender transactions;
- Creating an audit trail to substantiate that taxes have been remitted on credit card transactions;

- Daily accounting of third party payments (instead of current monthly accounting); and
- Preventing fraud, as many small businesses have only one person to reconcile tax payments – daily collection requires someone to be monitoring remittances daily.

Since many of these retailers are too small to have an employee dedicated to tax compliance, surveys suggest that the system will require owners to work more hours to comply with the new system. These recurring annual costs are not accounted for in this report.

*Medium sized retailers.* Medium sized retailers are defined as businesses with 100 to 499 Massachusetts employees. These businesses are likely to have multiple locations and use payment systems that are integrated with financial accounting, inventory, and enterprise systems. There are approximately 1,600 of these retailers operating in Massachusetts. Due to the lack of survey data from these firms, it is very difficult to estimate with precision the cost impact for these businesses. However, based on very limited survey information, this study assumes that the average estimated one-time cost of compliance would be \$35,000 per retailer in non-recurring costs and \$3,500 in annual recurring costs. The estimated total costs for this segment are \$54.8 million in one-time costs and \$5.5 million in recurring costs.

*Large retailers.* STRI received the most robust of its survey responses from large national retailers operating in Massachusetts, with national sales ranging from \$1.5 billion to \$40 billion nationally and with Massachusetts operations ranging from a single store location to 45 retail locations and e-commerce operations and sales into Massachusetts. This

study defines large retailers as those with 500 or more Massachusetts employees. The estimated average cost of implementing the daily sales tax collection system for large retailers is \$2.0 million in one-time costs and approximately \$100,000 in annual recurring costs. The estimated total costs for the estimated 164 retailers in this category are \$328 million in one-time, non-recurring costs and \$16.4 million in annual recurring costs.

These cost estimates reflect the complexity involved in changing enterprise systems that integrate accounting, tax compliance, and other enterprise system functions. Below is a list of the issues that were identified as cost drivers by large retailers responding to the STRI survey:

- Configuring systems to identify sales tax in batch processing of credit/debit card transactions;
- Reconciling daily remittances with monthly remittances from cash/check/other payment transactions;
- Development of daily tax and finance reports that reconcile with monthly tax and finance reports;
- Changes to month-end statements to reflect withheld sales tax;
- Storing, validating, and reconciling third party payment processor information;
- Training customer service/operations to address refund processing, customer questions regarding tax payments, and related inquiries;
- Creating an audit trail for third party transactions and storing it for 3 years as required under Massachusetts law;
- Ensuring that systems changes support Sarbanes-Oxley compliance;

- Developing systems and training tax compliance staff to account for and document complex transactions such as refunds, bad debt, and split tender transactions;
- Developing systems that reconcile tax liabilities at a customer level instead of at a macro level would significantly increase costs; and
- Most large retailers prohibit any IT projects during the holiday selling period (October through January) that could potentially impact POS systems, which would further compress the timeframe available to implement any systems changes.

In addition to these issues, certain retailers that sell taxable products or services that are billed on a monthly basis face additional challenges. For example, some retailers that bill for taxable services accrue tax liabilities when the service is billed and not when the customer pays the bill. In these instances, there is no current association between the tax remittance and the customer payment date. Under the current methodology, sales tax may be remitted before the company receives payment from the customer, on the same day the company receives payment, or shortly after the company receives payment. It would be very costly and complex to switch from the accrual system for all sales tax remittances to one that reconciles payments between accrual and daily remittance based on the type of payment instrument used, since the company would not know the payment instrument used until the payment is received from the customer.

Finally, the proposal would require adding new interfaces between retailers' point-of-sale systems, payment processors, and financial

institutions. It would also add over 700 payment processors that would be remitting sales taxes directly to the Department of Revenue in addition to the tens of thousands of retailers that are currently remitting under the current system. These new technology interfaces introduce additional opportunities for theft and fraud that may require additional expenditures on data security systems. These potential costs are not quantified in this report.

*Telecommunications Providers.* This report does not include “telecommunications providers” in the category of large retailers because telecommunications providers have separately reported detailed cost estimates to the Commissioner of Revenue. The estimated cost to the four major telecommunications providers operating in Massachusetts is \$96-\$102 million in one-time costs and \$5-6 million in recurring annual costs.<sup>2</sup>

## **PAYMENT PROCESSORS AND FINANCIAL INSTITUTIONS**

As mentioned previously, there are over 700 payment processors and 8,000 card-issuing financial institutions in the United States. Given the size of the Massachusetts market, it is expected that all or substantially all of these entities would be affected by implementation of daily sales tax collection in the Commonwealth. The STRI survey did not include any responses from card-issuing financial institutions, so this report does not include any costs associated with integrating financial institution systems with those of the payment processors.

This estimate is based on data provided by payment processors to STRI on the survey of implementation costs. Some payment processors reported that they based the cost estimates in part on the actual costs incurred in upgrading payment systems to accommodate the EMV chip reader, the global standard for authenticating card transactions. The costs involved in converting systems to EMV are similar to the daily sales tax collection system because they both would change the transaction data flow to accommodate the flow of additional data. In the case of EMV, this involved additional “back end” verification that the card was valid using the data contained in the chip.

In the case of the daily sales tax collection proposal, the technology upgrade requires transmitting additional information from retailers’ POS systems into the card payment system, affecting all parties in the payment network (merchant banks, issuing banks, and processors). Currently, a retail merchant sends only the total cost of the transaction (merchandise plus tax calculated by the point of sale system) through the payment network. Under the daily collection proposal, additional data fields (tax amount and taxpayer ID, at a minimum) would need to be sent through the payment network, requiring additional software.

A second complexity is that the settlement process would involve two entities instead of one. Currently, all revenues are sent to the retailer who is then responsible for paying the collected sales tax to the Department of Revenue. Under the proposed new system,

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<sup>2</sup> Comments of AT&T, Sprint, T-Mobile US, and Verizon on Daily Sales Tax Collection by Third Party Payment Processors, submitted September 28, 2017.

money would flow from the issuing bank to both the retailer selling the taxable item as well as the Department of Revenue. Therefore, the proposed system upgrade would be more complex than the EMV system upgrade.

The following is a partial list of tasks that would be required for payment processors to upgrade their systems to accommodate the proposed daily sales tax collection system:

- Updating the core payment platform to accommodate additional data requirements;
- Updating payment gateways (web, mobile, payment devices) to accommodate additional data requirements;
- Retention of additional data required for remittance, reconciliation, and audit requirements;
- Retention of data necessary to process chargebacks and reversals;
- Allowing for daily posting of Massachusetts sales tax to the general ledger or other daily reporting necessary to remit tax;
- Creating a process/interface to send sales tax payments to the Commonwealth;
- Updating reporting templates so merchants could see daily tax remittances;
- Testing of all code updates for core and payment gateways;
- Testing and certification of merchants and merchant systems; and
- In-house staff training to handle tax inquiries from merchants.

The payment processor market is characterized by a handful of major payment processors that

handle the majority of transactions. The cost estimates received by STRI reflect the larger payment processors operating in the marketplace. Those estimates ranged between \$2.6 million on the low end to many multiples of that amount on the high end. While the vast majority of the other payment processors have a much smaller market share in Massachusetts, they would still need to comply with the new daily sales tax remittance rules for all retailers they provide services for in Massachusetts. To be conservative, this report estimates the average cost across the payment processor industry reflecting both the larger and smaller market share companies would be \$1.0 million per entity, or approximately \$700 million in total.

In addition to the substantial costs outlined above, payment processors responding to the STRI survey also expressed serious concerns about the feasibility of meeting the June 1, 2018 implementation deadline. The complexity and risk is magnified by the fact that both payment processors and retailers must simultaneously update their systems and integrate them with those of the card issuing financial institutions. There is a very substantial risk that the system would not be ready by the deadline.

#### **ADDITIONAL COST CONSIDERATIONS**

This report assumes that the costs of implementation would be borne by Massachusetts businesses. It is unclear from the provisions of House Bill 3800 whether a single company would be chosen to set standards for the system, and whether or how that company would be compensated for this service. A potentially significant implementation cost could involve the payment of royalties if a firm asserts that it has patented an idea for

accelerated sales tax remittance. For example, one company asserted at a meeting of the National Conference of State Legislatures it could charge a state a royalty of .25% of the sales tax collected for the use of its idea. If this is a valid assertion, it could be a \$15 million annual cost to the state.<sup>3</sup> This potential cost is not included in the total estimate provided in this report.

### **ASSERTED BENEFITS**

An accelerated sales tax collection system does not result in any new revenue to the Commonwealth. The legislature estimated that the Commonwealth would receive a one-time, \$125 million benefit by accelerating thirteen months of revenue into a twelve-month fiscal period (thus merely shifting revenue recognition and not generating actual new revenue). Some have also asserted that the Commonwealth could potentially receive other benefits. However, the same acceleration of tax collections could be achieved by simply requiring retailers to submit an estimated prepayment, which would not require businesses or the Commonwealth to incur the costs necessary to build new payment systems.

### **CONCLUSION**

The proposed daily sales tax collection system will impose an estimated \$1.2 billion in non-recurring costs on businesses operating in Massachusetts. By type of businesses, these costs are estimated as follows:

- Retailers (excluding telecommunications providers) -- \$418 million

- Telecommunications providers (midpoint) -- \$99 million
- Payment processors -- \$700 million
- TOTAL COSTS -- \$1.22 billion

Additionally, the system will impose nearly \$28 million in annual, recurring costs on businesses operating in the Commonwealth.

As previously noted, there is an important caveat: these are very high-level estimates based on the best data available (albeit limited due to the short time frame). Nonetheless, even after taking into account the limitations of available data, there can be little doubt that an accelerated sales tax remittance system would impose a significant financial burden on businesses operating in Massachusetts. When comparing these estimated costs to a one-time revenue shift that could be accomplished without incurring such costs, it is evident that implementing a daily sales tax collection system is not cost effective.

Further, according to payment processors and retailers with direct experience with major computer system upgrades, the implementation of a daily sales tax remittance system would require a substantial amount of lead time for development, implementation, and testing. Therefore, it is extremely unlikely that a daily sales tax remittance system could be in place by the June 1, 2018, deadline required by the legislature in House Bill 3800. This uncertainty would create significant risk for retailers, payment processors, and the Commonwealth that the systems would not be operational by the statutory deadline.

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<sup>3</sup> National Conference of State Legislatures, Executive Committee Task Force on State and Local Taxation, May 30, 2014, Anchorage, Alaska.

[http://www.ncsl.org/documents/task\\_forces/Alaska\\_TF\\_Summary\\_May30.pdf](http://www.ncsl.org/documents/task_forces/Alaska_TF_Summary_May30.pdf)



<b>Appendix A: Massachusetts Retailers by Category and Number of Employees</b>					
NAICS	Subsector	Retail Establishments			
		Total	Estimated	Estimated	Estimated
		Retail Establishments	1 to 99 Employees	100 to 499 Employees	500 + Employees
441	Motor vehicle and parts dealers	4,687	4,607	79	1
442	Furniture and home furnishings stores	1,920	1,908	12	0
443	Electronics and appliances stores	1,437	1,410	25	2
444	Building material / garden equipment and suppliers	2,149	2,070	77	2
445	Food and beverage stores	6,756	6,312	431	12
446	Health and personal care stores	3,988	3,967	19	1
447	Gasoline stations	2,031	2,031	0	0
448	Clothing and clothing accessories stores	6,151	6,114	34	4
451	Sporting goods, hobby, book and music stores	2,920	2,896	22	1
452	General merchandise stores	1,405	1,249	149	7
453	Miscellaneous store retailers	7,676	7,630	41	5
454	Nonstore retailers	13,213	12,621	466	125
722	Food services and drinking places	19,261	19,049	210	2
	<b>TOTAL</b>	<b>73,594</b>	<b>71,864</b>	<b>1,565</b>	<b>164</b>
Sources: National Retail Federation, Infogroup					
<b>Cost Estimates</b>					
Percent of Sector Accepting Credit Cards			95%	100%	100%
Impacted businesses			68,271	1,565	164
Average Cost Per Sector (non-recurring)		20% hardware	\$1,000	\$35,000	\$2,000,000
		80% software	\$400		
Total estimated cost (non-recurring)			\$35,500,799	\$54,775,000	\$328,000,000
Average Cost Per Sector (recurring)				\$3,500	\$100,000
Total estimated cost (recurring)			\$ -	\$ 5,477,500	\$ 16,400,000
<b>TOTAL COSTS (non-recurring)</b>			<b>\$418,275,799</b>		
<b>TOTAL COSTS (recurring)</b>			<b>\$ 21,877,500</b>		

Source: Author's calculations based on STRI survey data and interviews.



The State Tax Research Institute (STRI) is a 501 (c)(3) organization established in 2014 to provide educational programs and conduct research designed to enhance public dialogue relating to state and local tax policy. STRI is affiliated with the Council On State Taxation (COST). For more information on STRI, please contact Douglas Lindholm at [dlindholm@cost.org](mailto:dlindholm@cost.org). ©STRI 2017