

PROPOSED MASSACHUSETTS TAX EXPENDITURES EVALUATION SUMMARY

EVALUATION YEAR: 2021

TAX EXPENDITURE TITLE	Exemption for Vessels or Barges of 50 Tons or Over
TAX EXPENDITURE NUMBER	3.609
TAX EXPENDITURE CATEGORY	Miscellaneous Sales and Use Tax Exemptions
TAX TYPE	Sales and Use Tax
LEGAL REFERENCE	M.G.L. c. 64H, § 6(o)
YEAR ENACTED	1967, amended 1968
REPEAL/EXPIRATION DATE	None
ANNUAL REVENUE IMPACT	Average annual tax loss of \$0.3 million during FY19 to FY23.
NUMBER OF TAXPAYERS	Not Available
AVERAGE TAXPAYER BENEFIT	Not Available

Description of the Tax Expenditure: Vessels or barges of 50 tons burden or over are exempt from sales tax when constructed in-state and sold by the builder.	Is the purpose defined in the statute? The statute does not explicitly state the purpose of this tax expenditure.
What are the policy goals of the expenditure? DOR assumes that the expenditure is intended to promote the shipbuilding industry in Massachusetts and foster competitiveness by eliminating sales tax on certain vessels and barges constructed in Massachusetts.	Are there other states with a similar Tax Expenditure? With regard to neighboring states, Connecticut has an exemption for vessels sold for out of state use. Rhode Island has a general exemption for the sale of all boats & vessels. Maine and Vermont do not have a similar exemption. New York has an exemption for the sale of commercial vessels engaged in interstate or foreign commerce. New Hampshire does not have a sales tax. Other states' rules are described in the body of the report.

INTRODUCTION

The tax expenditure exempts from sales tax transfers of vessels or barges of 50 tons burden or over when constructed in-state and sold by the builder. Sales of smaller vessels are generally subject to sales tax.

The Massachusetts sales tax (and complementary use tax) is a transaction tax that applies to retail sales of tangible personal property (including prewritten computer software regardless of mode of transfer) and enumerated services (currently including only telecommunication services). A retail sale is any sale other than a sale for resale. A sale for resale occurs when a business purchases an item and sells it to a third party in substantially the same form in which it was purchased. All retail sales are taxable unless an exemption applies. These exemptions are tax expenditures because they prevent the imposition of tax on transactions that would otherwise be taxable.

While the sales tax is imposed on retail sales, it is not necessarily a tax on final consumption by households, as is the case with the value added taxes (VATs) imposed in most other countries. A retail sale to a business may also be subject to sales tax. For example paper, desks, computers, and similar items purchased for office use would generally be taxable. The exclusion of sales for resale and the application of certain exemptions prevent the imposition of the tax on many business inputs, but other business inputs remain taxable. Aside from specific statutory exclusions and exemptions, there is no general prohibition in the sales and use tax statutes on the application of the tax to retail sales at multiple stages of the production and sales process.

Absent the exemption afforded by this tax expenditure, Massachusetts ship builders would be required to collect sales or use tax when they build vessels or barges of 50 tons burden and sell them at retail. It is possible that the sale for resale exclusion might apply to such sales if the purchaser buys the vessel or barge to sell to its customers. However, in the absence of the exemption, the sales and use tax would apply to sales of vessels that purchasers will use themselves. This is so even if the purchasers use the vessels in their business operations.

POLICY GOALS

DOR assumes that the expenditure is intended to promote the shipbuilding industry in Massachusetts and foster competitiveness with other states with a similar expenditure by eliminating sales tax on certain vessels and barges constructed in Massachusetts.

DIRECT COSTS

The revenue loss resulting from this tax expenditure is estimated to be \$0.2 - \$0.4 million per year during FY19-FY23. See Table 1. The estimates reported in Table 1 are based on shipbuilding industry data from the U.S. Census Bureau and other external sources.¹ Due to the use of external data and the limitations of these data for estimating this tax expenditure, the estimates may have significant estimation uncertainty and should be used with caution.

**Table 1. Tax Revenue Loss Estimates for Sales Tax Exemption
for Vessels or Barges of 50 Tons Burden or Over**

Fiscal Year	2019	2020	2021	2022	2023
Estimated Revenue Loss (\$Million)	\$0.4	\$0.2	\$0.3	\$0.4	\$0.4

DIRECT BENEFITS

The builders/sellers and buyers of the exempt products (barges and vessels of 50 tons burden or over) are the direct beneficiaries of the sales tax exemption. Buyers benefit from the sales tax exemption in the form of paying a lower “after tax price” while builders/sellers benefit from the sales tax exemption in the form of receiving a higher “before tax price”. The exact split of the direct benefits depends on the interaction of demand and supply and is often difficult to quantify.

According to the U.S. Census Bureau, in 2017, Massachusetts had 11 firms in the industry of ship building and repairing. These firms employed 381 people generating \$22.8 million in annual payroll and \$76.9 million in annual sales. In the same year, Massachusetts had 25 firms in the industry of boat building, employing 240 people and generating \$12.6 million in annual payroll and \$60.9 million in annual sales. See Table 2.

**Table 2. Annual Payroll, Sales, and Employment of the Industry of Ship and Boat
Building in Massachusetts**

¹ Data: <http://shipbuildinghistory.com/>, <https://gladding-hearn.com/>,
<https://www.fairhavenshipyard.com/>.

Additional background information on maritime and shipbuilding industry:

<https://www.maritime.dot.gov/sites/marad.dot.gov/files/2021-06/Economic%20Contributions%20of%20U.S.%20Shipbuilding%20and%20Repairing%20Industry.pdf>,
<https://fish-news.com/>, (Commercial Fisheries News), <https://www.nps.gov/nr/travel/maritime/ships.htm>

2017 NAICS Code	Meaning of NAICS Code	Number of Firms	Number of Establishments	Sales, Value of Shipments, or Revenue (\$Millions)	Annual Payroll (\$Millions)	Number of Employees
33661	Ship and boat building	36	36	\$137.8	\$35.4	621
336611	Ship building and repairing	11	11	\$76.9	\$22.8	381
336612	Boat building	25	25	\$60.9	\$12.6	240

Source: The U.S. Census Bureau, 2017 Economic Census, which is the most recent version of Economic Census. The next version will be 2022 Economic Census.

Table 3 reports data from the 2018 County Business Patterns for firms in the two industries mentioned above by employment size. The table shows that all firms in these two industries are small businesses² with most firms employing less than 20 people. Table 3 and information from other sources³ suggests that probably only a couple of firms in these two industries currently have shipyards capable of building a barge or vessel of 50 tons burden or more. Most other firms likely engage in only ship or boat repairing or building of significantly smaller vessels.

Table 3. Annual Payroll and Employment of the Industry of Ship Building and Repairing and the Industry of Boat Building by Enterprise Employment Size in Massachusetts

2017 NAICS Code	Meaning of NAICS Code	Enterprise Size	Number of Firms	Number of Establishments	Annual Payroll (\$Millions)	Number of Employees
336611	Ship building and repairing	Total	11	11	\$23.3	390
336611	Ship building and repairing	<5 employees	4	4	\$0.5	14
336611	Ship building and repairing	<20 employees	7	7	\$2.6	50
336611	Ship building and repairing	<500 employees	11	11	\$23.3	390
336612	Boat building	Total	26	26	\$14.7	290
336612	Boat building	<5 employees	11	11	\$0.9	21

² According to the small business size standard developed by the U.S. Small Business Administration (SBA): [https://www.sba.gov/sites/default/files/2019-08/SBA%20Table%20of%20Size%20Standards Effective%20Aug%2019%2C%202019_Rev.pdf](https://www.sba.gov/sites/default/files/2019-08/SBA%20Table%20of%20Size%20Standards%20Effective%20Aug%2019%2C%202019_Rev.pdf). A business (including its subsidiaries and affiliates) may be classified as a small business for SBA and federal contracting programs if the business employs not more than 1,250 people for the industry of 336611 or not more than 1,000 for the industry of 336612.

³ Such as <http://shipbuildinghistory.com/>

336612	Boat building	5-9 employees	10	10	\$3.6	71
336612	Boat building	10-19 employees	4	4	\$3.4	64
336612	Boat building	<20 employees	25	25	\$8.0	156
336612	Boat building	<500 employees	26	26	\$14.7	290

Source: The U.S. Census Bureau, 2018 County Business Patterns.

EVALUATION: COMPARING COSTS AND BENEFITS

In the previous sections, we report the direct costs (to the Commonwealth, or to the residents and businesses who ultimately bear the costs when the Commonwealth cuts government spending or increases taxes to finance the sales tax exemption for sale of barges or vessels of 50 tons burden or over) and direct benefits (to buyers and builders/sellers of exempt items) of this tax expenditure. In this instance, the direct costs to the Commonwealth, namely the sales tax that would have been collected from these transactions, are equal to the direct benefits afforded by the tax expenditure to buyers and builder/sellers of barges or vessels of 50 tons burden or over, which is the sales tax they would have had to pay to the Commonwealth.

Besides the direct costs and benefits, there are indirect and induced costs and benefits associated with this tax expenditure. The indirect impact (cost or benefit) is felt by the chain of businesses that provide intermediate products and services to the directly impacted businesses. The induced impact (cost or benefit) occurs when a directly or indirectly impacted business passes on the costs or benefits to households, such as those of its employees, in the form of lower or higher income, such as wages and salaries, who then in turn reduce or increase purchases of goods and services from other businesses. The total costs or benefits to the whole economy are larger than the initial direct impacts. This phenomenon is called the “Multiplier Effect”.⁴

To measure these indirect and induced costs and benefits, economists often need to utilize complicated models, such as REMI (Regional Economic Models, Inc.) or IMPLAN (Impact Analysis for Planning) models. DOR did not attempt to use such models given their complexity and the data limitations present in this instance.

Besides the economic costs and benefits discussed so far, another factor to consider is the negative externality of this tax expenditure. A negative externality occurs when the production and/or consumption of a good or service exerts a negative effect on a third party independent of the transaction. For example, a shipyard involved in the building of large vessels may cause noise and air pollution during the building process. By

⁴ For an illustration of “Multiplier Effect”, see Slide 4 of: <https://www.ilw.com/seminars/JohnNeillCitation.pdf>

encouraging this activity, this tax expenditure may aggravate these negative externalities if there are no offsetting policies to dampen the impact.

The tax expenditure almost certainly helps improve the state's business tax climate and helps maintain or increase the state's competitiveness. But it is difficult to quantify how much this tax expenditure encourages the building of barges and ships of 50 tons burden or over in Massachusetts and spurs economic development in the state.⁵ Currently, the ship and boat building industry in Massachusetts is relatively small compared to the entire country when measured by sales (0.4%), annual payroll (0.4%) and employment (0.5%).

**Table 4. The Industry of Ship and Boat Building in Massachusetts
as a percentage of the industry in U.S.**

2017 NAICS Code	Meaning of NAICS Code	Number of Firms	Number of Establishments	Sales, Value of Shipments, or Revenue	Annual Payroll	Number of Employees
33661	Ship and boat building	2.6%	2.3%	0.4%	0.4%	0.5%
336611	Ship building and repairing	1.9%	1.6%	0.3%	0.4%	0.4%
336612	Boat building	3.1%	2.9%	0.6%	0.8%	0.7%

Source: Calculated by the Massachusetts Department of Revenue (DOR) using data from the 2017 Economic Census, U.S. Census Bureau.

Similar Tax Expenditures Offered by Other States

With regard to neighboring states, Connecticut has an exemption for vessels sold for out of state use, Rhode Island has a general exemption for the sale of all boats & vessels. Maine and Vermont do not have a similar exemption. New York has an exemption for commercial vessels engaged in interstate or foreign commerce. New Hampshire does not have a sales tax.

9 states – Alabama, California, Louisiana, Michigan, Minnesota, Mississippi, South Carolina, Texas and Wisconsin – have an exemption based on tonnage like Massachusetts, with the exempt tonnage ranging between 5 and 1000 tons. Louisiana, Mississippi and South Carolina each have an exemption for 50 ton or more vessels and barges. Wisconsin's

⁵ Although we are not aware of any studies measuring how much this tax expenditure encourages the building of barges and ships of 50 tons burden or over in Massachusetts, there are many studies on the economic impact of the ship and boat building industry itself, see, for example, a report prepared by the U.S. Department of Transportation, Maritime Administration:
<https://www.maritime.dot.gov/sites/marad.dot.gov/files/2021-06/Economic%20Contributions%20of%20U.S.%20Shipbuilding%20and%20Repairing%20Industry.pdf>

exemption is for vessels and barges of 50 tons or more when sold primarily for interstate or foreign commerce.

Georgia has an exemption for vessels sold for out of state use. Hawaii has a use tax exemption for the purchase of vessels used for interstate or foreign commerce.

7 states - Florida, Maryland, New Jersey, North Carolina, Ohio, Virginia and Washington – have a general exemption for the sale of vessels used for interstate or foreign commerce.

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