



Economic Impact Analysis of an Increase in the Lobster Minimum Gauge Size on Maine's Economy

by

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In May 2023, the Atlantic States Marine Fisheries Commission ([ASMFC](#)) establishing a trigger protocol (Addendum XXVII) for the harvesting of lobsters in the Gulf of Maine and Georges Bank (GOM/GBK). The ASMFC regulation seeks to increase the harvestable lobster carapace gauge length and trap escape vent size with a goal of protecting the lobster spawning stock in these waters. The increased minimum gauge size was to go into effect on June 1, 2024. ASMFC's action was based on two key observations:[†]

- ✓ Since the early 2000s, lobster harvests from the GOM/GBK waters have increased.
- ✓ Since 2012, surveys of the juvenile lobster population in the GOM suggest that the spawning stock has decreased.

There is considerable debate among harvesters and policy makers, particularly in Maine, as to the impact of the trigger protocol on the industry and the accuracy of the survey data on which the ASMFC Board's regulatory action was made. In October 2023, ASMFC delayed implementation of the trigger protocol until January 1, 2025 in response to concerns of harvesters and a request from Maine's DMR Commissioner Patrick Keliher. Of particular concern to Maine's lobster harvesters is the fact that the ASMFC regulations would not apply to Canadian harvesters.

Earlier this month, representatives from the New England Fishermen's Stewardship Association ([NEFSA](#)) and several Maine lobster dealers approached me about the feasibility of providing an update to my previous economic impact study of Maine's wholesale distribution network and an estimate of the potential impact of the ASMFC trigger protocol on the entire industry. My [Lobsters to Dollars](#) study was based on interviews and data from 2016 provided by a representative sample of lobster dealers across the state. I found that, at that time, the economic impacts of the lobster dealer wholesale distribution network in Maine totaled just under \$1 billion and supported approximately 5,600 jobs. My study was confined to just one segment of Maine's lobster industry supply chain and did not include the economic footprint of harvesters, nor the contributions attributable to 'downstream' enterprises in the value chain represented by processors, retailers, and restaurants.

A study of the State's entire commercial seafood industry prepared for the Seafood Economic Accelerator of Maine in January 2023[‡] estimated the economic impact of Maine's lobster harvesters to be \$852.5 million in total value added while supporting more than 6,500 jobs. That study did not estimate impacts attributable to Maine's wholesale distribution network.

A comprehensive economic impact study of the ASMFC trigger protocol would require a careful assessment of the ways in which harvesters would react in terms of their fishing intensity, capital investments in traps and equipment, and how much of their harvest would be impacted by an increase

[†]See: <http://www.asmfc.org/species/american-lobster>

[‡]See: <https://www.seamaine.org/wp-content/uploads/2023/03/FINAL-SEAMaine-Economic-Impact-Analysis-Report-2.pdf>

in the legal carapace gauge length. Smaller lobsters may make up an important portion of total landings as one-pound “chicken lobsters” feature in the sales of many restaurants in Maine. Furthermore, there are more processors in the state than when I did my study and the impact of a significant reduction in this portion of the harvest is unknowable without conversations and field research that included these businesses.

Complicating the analysis, and presumably magnifying the negative externalities associated with the new regulation, is the fact that Canadian harvesters fish in the same waters as Maine lobstermen yet would not be subject to the ASMFC gauge length increase.

To get a sense for the multiplicative impact of a reduction in lobster landings that might result from ASMFC’s new trigger protocol I focused on just the ‘backward’ or ‘upstream’ linkages for harvesters along Maine’s lobster supply chain. I employed the same IMPLAN modeling environment that I used in my Lobsters to Dollars study and, coincidentally, also used for the January 2023 Maine commercial seafood industry impact report

The current minimum carapace gauge length for Maine lobsters is 83mm. Under the ASMFC trigger protocol, the minimum length would increase to 86mm (in two stages). Sampling data provided by Maine’s Department of Marine Resources for 2016-2021 indicate that just over 10 percent of the harvest measured 83mm over this period and would therefore be illegal with the gauge increase. More than a third of the sampled landings during this period had a carapace length measuring between 83mm and 86mm.

I estimate that a ten percent decrease in the value of lobster landings in 2022 would have resulted in a loss of just over 680 jobs and \$59.6 million to Maine’s economy. Again, these impacts apply just to the economic activity attributable to the harvesters and those upstream enterprises in the value chain. All of the negative impacts on the downstream portion of the supply chain – the wholesale distribution network, processors, retailers, and restaurants – would be *in addition* to my estimates.

The table below disaggregates the total impact of a 10 percent reduction in the value of landings in 2022 into the direct effect (10% of landings in 2022 equals \$39.2 million), indirect effects representing economic losses to upstream businesses from whom harvesters purchase equipment and services, and the induced effects of lost labor income on Maine’s economy.

**State-wide Economic Impacts of a
10% Reduction in the Value of Lobster Landings on Maine’s Economy**
(Millions of 2024 dollars)

Impact	Employment	Labor Income	Value Added	Output
Direct	-574	-\$22.7	-\$39.0	-\$39.2
Indirect	-1	-\$0.045	-\$0.085	-\$0.168
Induced	-112	-\$6.3	-\$12.1	-\$20.2
TOTAL	-686	-\$29.0	-\$51.2	-\$59.6

