

The Economic Contributions of Recreational and Commercial Striped Bass Fishing

Produced for:

The McGraw Center for Conservation Leadership



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This report updates a previous version dated January, 2018 and is based on updated, revised data sources plus correction of a calculation error detected in the original version.

Executive Summary

In 2016, an estimated 43.7 million pounds of striped bass were landed along the Atlantic coast. Commercial landings accounted for 10% of all landings and recreational anglers took the remaining 90% of the total. Including all economic activity associated with the commercial fishery (harvesting, processing, wholesale and retail), commercial landings produced less than 3% of the total economic contributions from all striped bass harvested by commercial and recreational fishing. Spending by recreational anglers accounted for more than 97% of the total economic contributions associated with striped bass fishing.

Efficient allocations of fisheries resources are best achieved by comparing the economic value associated with recreational and commercial fishing.¹ Therefore, it is beyond the scope of this study to estimate the marginal increases in fishing activity that might arise from a reallocation of striped bass between the commercial and recreational fisheries². Also, it is inappropriate to use economic impact data and static harvest data as presented within this report to set bag limits and seasons. There are more appropriate ways to do so. This report is intended to demonstrate the economic significance of striped bass to coastal economies based on the current management structure, size of the fishery and current economic conditions.

This report presents the jobs, sales, tax revenues and other economic contributions for each Atlantic coast state from Maine to North Carolina. Two years were examined: the most recent year for which data are available (2016), plus an additional year representing a peak year over the past ten years (2009) to help readers understand the economic range associated with the striper fishery.

The study was conducted using publicly available data from NOAA and using NOAA-based economic impact models. The recreational contributions are based on the trip and equipment expenditures made by anglers that can reasonably be attributed to striped bass fishing. The commercial contributions include the harvesting, processing, wholesale and retail industries involved in moving striped bass from the sea to the final consumer. Imported fish are excluded from the commercial analysis.

¹Economic value reflects the net economic benefit derived from a good or service and is typically measured as the amount that people are willing to pay beyond the market price. For consumers, this is typically referred to as consumer surplus. Presently, NOAA Fisheries is preparing a report on economic values associated with recreational striped bass fishing. We refer readers to that forthcoming report and encourage the development of comparable economic value data for the commercial striped bass fishery to permit adequate comparisons.

² Descriptions of striped management practices including commercial quotas and recreational bag and size limits are available from Atlantic States Marine Fisheries Commission, <http://www.asmfc.org/species/atlantic-stripped-bass>. This study does not estimate the extent to which recreational restrictions are limiting angling activity.

In 2016, recreational anglers landed 90% percent of all striped bass harvested that year and supported 98% or more of the total jobs, income and GDP associated with striped bass (Table E1). The commercial fisheries are significant, with the harvesting, processing and trade sectors associated with commercial landings generating over a hundred million dollars in new economic activity and thousands of jobs.

Table E1. 2016 Comparison of commercial and recreational impacts: North Carolina to Maine

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed (000s)	4,978.3	43,731.9	48,710.2	10%	90%	100%
Jobs supported	2,664	104,867	107,531	2%	98%	100%
Income (\$millions)	\$72.7	\$4,726.0	\$4,799	2%	98%	100%
GDP (\$millions)	\$103.2	\$7,731.6	\$7,835	1%	99%	100%

Table E2 provides an overview of the economic impacts, both from commercial harvests and recreational spending, of striped bass fishing for each of the states in the study. While striped bass are fished all along this part of the east coast, commercial harvests are not landed in all states.

Table E2. Comparison of commercial and recreational impacts: North Carolina to Maine, 2016.

State	Landings (000 lbs.)		GDP (\$millions)		Jobs Supported		Salaries and Wages (\$millions)	
	Rec.	Comm.	Rec.	Comm.	Rec.	Comm.	Rec.	Comm.
CT	912.2	0.0	\$375.1	\$0.0	4,418	0	\$235.8	\$0.0
DE	86.1	136.5	\$59.1	\$0.8	732	19	\$36.1	\$0.5
ME	189.4	0.0	\$183.1	\$0.0	3,110	0	\$114.6	\$0.0
MD	10,919.1	1,709.4	\$802.8	\$17.1	10,193	584	\$496.9	\$12.6
MA	3,730.6	938.2	\$1,675.8	\$8.0	20,715	383	\$1,190.4	\$5.9
NH	190.9	0.0	\$116.3	\$0.0	1,630	0	\$83.0	\$0.0
NJ	12,790.3	0.0	\$1,609.1	\$0.0	18,624	0	\$1,031.2	\$0.0
NY	12,052.9	539.7	\$1,165.0	\$4.0	13,810	161	\$754.8	\$2.9
NC	60.4	146.2	\$136.6	\$0.8	1,953	28	\$85.1	\$0.6
RI	1,775.6	174.7	\$241.1	\$1.1	3,410	42	\$155.3	\$1.0
VA	1,024.4	1,333.6	\$106.6	\$12.2	1,444	384	\$67.6	\$9.0

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Introduction

Recreational and commercial fishing can be a powerful contributor to coastal economies. Scientifically sound economic information is needed to understand and communicate the contributions of fisheries to local, state, and national leaders. This project measures the jobs, sales, tax revenues and other economic contributions generated by commercial and recreational marine striped bass fishing for each Atlantic coast state from Maine to North Carolina. Two years were examined: the most recent year for which data are available (2016), plus an additional year representing a peak year over the past ten years (2009) to help readers understand the economic potential from the striper fishery.

Historically, Atlantic striped bass has been a significant species for both commercial fishermen and recreational anglers, providing significant benefit to coastal economies. Changes to striped bass allocations between the commercial and recreational sectors can affect coastal and state economies. For both recreational and commercial striped bass fisheries, this study presents several important economic impact measures: retail sales, total economic (multiplier) effect, salaries and wages, jobs and contributions to GDP using standard recreational and commercial economic modeling techniques and existing NOAA Fisheries participation, landings and spending data. The goal was to quantify the retail sales, jobs, and overall economic activity resulting from current allocations of striped bass and present an idea of potential changes in economic impacts if stripers were designated as gamefish.

Please note that fisheries are allocated on the basis of “economic value” associated with recreational and commercial fisheries, not economic impact. Economic valuation measures the consumer surplus, or net intrinsic value, held by anglers after all expenses, time, hassles and satisfactions are considered. For commercial fishermen, their economic value is represented by producers’ surplus, or essentially their net profits, after all expenses are considered. Measuring these values can be costly and time consuming. At the time of this study, NOAA Fisheries was preparing a report on economic values associated with recreational striped bass fishing. We refer readers to this report and encourage development of value data for the commercial striped bass fishery to permit adequate comparisons.

Methodology

Region of Study

The figure below displays the states that are considered in this study. Any striped bass fishing in other states is too insignificant to measure. The states considered are: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Rhode Island, and Virginia.



Data Sources

Recreational striped bass effort data were obtained directly from NOAA Fisheries' Marine Recreational Information Program (MRIP). MRIP provides striped bass participation and effort data for each Atlantic coastal state from Maine to North Carolina. Spending data were obtained through NOAA's annual *Fisheries Economics of the United States* (FEUS) reports. The most recent FEUS report available provided data for 2016 including durable goods spending, trip spending, and commercial economic impact data for each state. Commercial striped bass landings data were obtained through NOAA National Marine Fisheries Service (NMFS) online commercial fisheries statistics queries. The economic modeling software IMPLAN was used to estimate the economic impacts of the recreational and commercial activities. NOAA's *The Economic Impact of Marine Angling Expenditures, 2011* was used to apportion trip spending across various spending categories while NOAA's *The Economic Contribution of Marine Angler Expenditures on Durable Goods in the United States, 2014* was used to apportion durable goods expenditures. Average spending per recreational fishing trip were inflated to 2016 dollars using the US Bureau of Labor Statistics' Consumer Price Index.

Definitions and Analysis

Definitions

Participation: Participation estimates include the number of trips taken by anglers. These estimations are drawn from MRIP and FEUS and include trips for any species as well as striped bass-specific trips. When examining the importance of striped bass trips, it is useful to compare striped bass trips as a percentage of all trips to determine its importance versus other species.

Trip Expenses: Trip expenses are defined as the spending made by an angler to directly support a fishing trip. The spending categories that make up trip expenditures are outlined in the findings section of the report. Trip spending specific to striped bass is not available from existing sources. Instead, average spending per trip for all types of marine recreational fishing was calculated. This average expenditure is then multiplied by the number of targeted striped bass trips. With the assumption that spending for striper trips are similar to the amounts spent in pursuit of other coastal species, the result is the total spending for striped bass trips.

Durable Goods: Durable goods expenditures are calculated in a manner which is similar to that which is used for trip expenditures. Though durable goods expenditures are not dedicated to any specific trip, they are used across many fishing trips. Examples of durable goods are boats, storage, tackle such as rods and reels, and other longer-term angling investments. These goods deteriorate with each trip and are eventually lost, upgraded, or otherwise replaced. We assume the deterioration and use of durable goods occurs at equal rates among different types of fishing trips, regardless of species targeted. With this assumption, and without data to show otherwise, we are able to estimate the average durable goods expenditure per fishing trip for all types of fishing. This average is then applied to the number of striped bass trips to estimate the amount of durable goods spending per year that can be attributed to striped bass fishing.

Commercial Landings Revenue: Commercial revenue is defined as the direct estimated revenue earned from the sale of striped bass by commercial vessels. The harvest of striped bass is estimated through commercial landings measured in pounds and multiplied by the average wholesale landed price per pound for the sale of that fish. The commercial landings revenue does not include the additional revenues generated as striped bass move from harvesters to processors, distributors, retail and restaurants. However, the additional economic impacts associated with moving the harvested fish through the entire value chain (i.e., the processors, distributors, retailers) to the final consumer is included in the estimated impacts of the commercial fishery. These data were obtained through the Commercial Fisheries Statistics provided by NOAA NMFS.

Compiling Expenditure and Revenue Estimates

Estimates of total spending by recreational striped bass anglers were calculated by matching striped bass effort with the average spent per trip and annually for durable goods, per the data sources described earlier. This was done for each state plus for the whole region. These aggregated spending categories were then apportioned across various detailed spending categories (tackle categories, boat-related, grocery stores, fuel, hotel, etc.) per details from NOAA's *The Economic Impact of Marine Angling Expenditures, 2011* for trip expenditures and NOAA's *The Economic Contribution of Marine Angler Expenditures on Durable Goods in the United States, 2014* for durable goods expenditures. These reports breakout anglers' spending into detailed categories. These spending profiles were then assessed using economic modeling software as described in the next section.

For commercial harvest, or landings, revenues, spending breakouts were not needed as the revenues received by commercial fishermen were applied to NOAA's economic models. The growth in value of striped bass products as raw fish moves through the wholesale distribution, processing and retail stages is added by the economic modeling process, as described in the next section.

Economic Modeling

Recreational Impacts

Input-output models describe how sales in one industry affect other industries. For example, once a consumer makes a purchase, the retailer buys more merchandise from wholesalers, who buy more from manufacturers, who, in turn, purchase new inputs and supplies. In addition, the salaries and wages paid by these businesses stimulate more economic activity as workers spend their incomes (in this case the portion of their incomes directly or indirectly associated to the striped-bass fishery). Simply, the first purchase creates numerous rounds of purchasing. Input-output analysis tracks the flow of dollars from the consumer through all businesses that are affected, either directly or indirectly.

Dollars spent by anglers or others, known as their “direct spending”, cycle through the economy generating additional rounds of spending by businesses who provide supporting services and goods. This is known as the multiplier effect and includes 1) indirect contributions arising from spending by businesses supporting those who serve anglers as well as 2) induced contributions generated by employees of directly or indirectly affected businesses. The total economic contribution from striped bass angling as provided in this report is a sum of the direct effects of anglers’ retail spending plus the measurable effects of indirect and induced spending. All economic contributions in this study were estimated using the latest state-level modeling data available from Implan[®] (2016) with inflation adjustments to reflect 2016 spending. Five types of economic activity are measured and reported:

- Jobs:* The number of full- and part-time jobs created or supported as a result of striped bass fishing;
- Salaries and wages:* Total payroll, including salaries, wages and benefits paid to employees and business owners;
- GDP:* This represents the total contribution (or “value-added”) to the state or national economy from striped bass fishing;
- Total multiplier effect:* The total value of all economic output by businesses throughout the economy under study associated with striped bass fishing; and
- Tax Revenue:* All local, state, and federal taxes generated as a result of the economic activity associated with striped bass fishing.

To apply striped bass spending to the IMPLAN model, each specific expenditure was matched to the appropriate industry sector that received the initial purchase. For each set of state estimates, the results report economic impacts that occurred *within* the state. Likewise, models based on specific regions represent the economic effects within the selected region. The results do not include any economic activity or indirect contributions that leak out of a given state, of which a portion is captured in regional or national models. As a result of this leakage, economic contributions at the regional level are typically larger than the sum of corresponding state contributions.

The IMPLAN model estimates local, state and federal tax revenues based on the economic activity within each state associated with striped bass fishing. The summary estimates provided in this report represent the total taxes estimated by the IMPLAN model including all income, sales, property and other taxes and fees that accrue to the various local, state and federal taxing authorities.

Commercial Impacts

The same economic impact measures defined in the recreational impacts discussion above are also used to report contributions generated by the commercial sector. Economic impacts are reported for 2009 and 2016 to help show the change between time periods and to compare with the recreational fishing impacts.

The 2009 impacts were generated using an online economic modeling tool available from NOAA National Marine Fisheries Service³. This model, built using the IMPLAN modeling system that was also employed for the recreational impacts, allows the generation of economic impacts for seafood in general and not for striped bass landings, specifically. The assumption is made that the multiplier effects, or the ratio of impacts created per pound of product, is equivalent to the multiplier effects for all seafood, finfish and shellfish. To the extent that this approach under- or over-estimates the impacts unique to striped bass, the results reported here are similarly affected. The value of striped bass landings for each state and for the whole region were applied to the multiplier in this tool to generate the impacts reported here.

Updated models for 2015 and 2016 were not available online. To generate the 2016 estimates, we referred to the 2015 *Fisheries Economics of the United States* (FEUS) report from which we calculated ratios for the commercially landed harvest of all species combined. Effects from imported fish were excluded. We anticipate the modeling procedures to be comparable to the online tool also provided by NOAA, thus providing results comparable to the 2009 impact estimates.

³ Interactive Fisheries Economic Impacts Tool: <https://www.st.nmfs.noaa.gov/apex/f?p=160:7:8141721484680330>

Participation and Harvest Overview

Striped Bass Fishing Overview

Total recreational trips, landings and spending across all states included in this study are summarized below, along with the revenue from commercial striped bass landings for both study years (2009 and 2016), plus all intermediate years to demonstrate trends over the past decade. The number of fish harvested includes both primary and secondary catch.

Table O-1. Striped bass recreational trips, harvest, and spending, and commercial landing values from 2009 to 2016 (\$000s)

	2009	2010	2011	2012
Recreational:				
Trips	27,606,806	28,695,871	25,092,446	24,345,610
Fish harvested (#)	4,726,323	5,430,256	5,047,491	4,070,414
Spending (\$millions)	\$ 5,740.6	\$ 5,909.9	\$ 5,360.2	\$ 5,545.9
Commercial Revenues (\$millions)	\$15.9	\$15.2	\$15.8	\$19.5

Table O-1. Continued

	2013	2014	2015	2016
Recreational:				
Trips	24,761,679	22,547,797	21,122,399	20,873,364
Fish harvested (#)	5,217,041	4,054,830	3,128,861	3,521,196
Spending (\$millions)	\$ 5,448.3	\$ 6,946.7	\$ 6,608.6	\$6,277.4
Commercial Revenues (\$millions)	\$24.2	\$22.6	\$18.0	\$19.8

The number of annual striped bass trips has declined almost every year since 2010. The year with the fewest recreational trips was 2016, with just over 20.8 million trips. The peak year for commercial landings was 2013. The range of years is provided to help show the maximum potential from each fishery.

Findings

Organization of Findings

Findings are first presented for all examined states, combined, followed by details for each state. Results are provided for two years: 2016, which is the most recent year when data were available, and for 2009, when recreational participation was at a high point, showing the potential from a fishery managed for greater recreational participation.

Regional Results (North Carolina to Maine)

Recreational Participation

Millions of anglers pursue striped bass from North Carolina to Maine each year. With over 27.6 million and 20.9 million directed trips in 2009 and 2016, striped bass was a popular species accounting for nearly 30% of all trips in the region.

Table R-1. Total anglers and angler trips for all states in the study

	2009	2016	% Change
Total Anglers*	8,114,932	7,535,650	-7%
Total Fishing Trips	94,740,885	86,999,562	-8%
Striped Bass Trips	27,606,806	20,873,364	-24%
Bass Trips % of total	29%	24%	

*Total anglers is the sum of anglers across all states in the region. The number of unique anglers in the region is unknown because anglers may fish in more than one state.

Spending & Revenues

Total regional landings and their associated expenditures are presented below. We caution about using spending and revenues to make statements about the economic impacts created by the recreational and commercial fisheries, however. The multiplier effects for a dollar associated with each fishery are markedly different. A better approach is to examine each fishery’s economic impacts which are in the next section.

Table R-2. Landings, Spending and Revenues Associated with Recreational and Commercial Striped Bass Fishing: North Carolina to Maine

	2009	2016	% Change
Commercial Landings (000 lbs)	7,531.8	4,978.3	-33%
Commercial Revenue (\$millions)	\$15.9	\$19.8	25%
Recreational Landings (000 lbs)	54,491.0	43,731.9	-20%
Recreational Spending (\$millions)	\$5,740.6	\$6,277.4	9%
Trip Spending (\$millions)	\$1,440.1	\$1,005.3	
Durable Goods (\$millions)	\$4,300.5	\$5,272.1	

Recreational Impacts

The weight of striped bass landed by recreational anglers declined 20% between 2009 and 2016 while the spending by anglers increased 9% (Table R-2). Including the multiplier effects of angler spending, Table R-4 shows that the recreational fishery supported 104,867 jobs in 2016 that provided \$4.7 billion of income. Across the economy, the recreational fishery created \$13.0 billion of economic activity and contributed \$7.7 billion to the region's GDP.

From 2009 to 2016, despite a 24% reduction in recreational striped bass fishing trips, the number of jobs supported by striped bass stayed steady (Tables R-3 & R-4).

Table R-3. 2009 Recreational Striped Bass Fishing Economic Impacts: North Carolina to Maine (\$millions)

	Jobs	Salaries and Wages	GDP	Total Output	State/Local Taxes	Federal Taxes
Direct Effect	54,561	\$2,156.7	\$3,333.2	\$4,870.1	\$472.4	\$520.7
Multiplier Effect	51,291	\$3,155.9	\$5,287.7	\$9,579.7	\$501.6	\$782.5
Total	105,852	\$5,312.6	\$8,620.9	\$14,449.8	\$974.0	\$1,303.3

Table R-4. 2016 Recreational Striped Bass Fishing Economic Impacts: North Carolina to Maine (\$millions)

	Jobs	Salaries and Wages	GDP	Total Output	State/Local Taxes	Federal Taxes
Direct Effect	55,190	\$2,467.7	\$3,735.1	\$5,246.7	\$544.2	\$590.7
Multiplier Effect	49,677	\$2,258.3	\$3,996.4	\$7,732.6	\$319.4	\$571.0
Total	104,867	\$4,726.0	\$7,731.6	\$12,979.3	\$863.6	\$1,161.7

Commercial Impacts

The weight of striped bass landed by commercial harvesters declined 34% between 2009 and 2016 while the value of the commercial landings increased 25% (Table R2). Including the multiplier effects of all industries involved in harvesting, processing, distributing and retailing striped bass to consumers, Table R-6 shows that commercially harvested striped bass supported 2,664 jobs in 2016 that provided \$58.7 million of income. Across the economy, the commercial fishery created \$198.8 million of economic activity and contributed \$10.2 million to the region's GDP.

Table R-5. 2009 Commercial Striped Bass Economic Impacts: North Carolina to Maine (\$millions)

	Jobs	Salaries and Wages	GDP	Total Output
Commercial Impacts 2009	2,388	\$58.7	\$83.2	\$160.4
<i>Harvesters 2009</i>	562	\$14.3	\$22.2	\$43.0
<i>Processors 2009</i>	182	\$7.9	\$11.0	\$25.2
<i>Wholesalers 2009</i>	85	\$3.8	\$5.5	\$11.6
<i>Retailers 2009</i>	1,559	\$32.7	\$44.5	\$80.6

Table R-6. 2016 Commercial Striped Bass Economic Impacts: North Carolina to Maine (\$millions)

	Jobs	Salaries and Wages	GDP	Total Output
Commercial Impacts 2016	2,664	\$72.7	\$103.2	\$198.8
<i>Harvesters 2016</i>	628	\$17.7	\$27.5	\$53.2
<i>Processors 2016</i>	203	\$9.8	\$13.7	\$31.2
<i>Wholesalers 2016</i>	94	\$4.7	\$6.8	\$14.4
<i>Retailers 2016</i>	1,739	\$40.5	\$55.2	\$99.9

Comparisons Between the Fisheries

Table R-7. 2016 Comparison of commercial and recreational impacts: North Carolina to Maine

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed (000s)	4,978.3	43,731.9	48,710.2	10%	90%	100%
Jobs supported	2,664	104,867	107,531	2%	98%	100%
Income (\$millions)	\$72.7	4,726.0	\$4,726.1	< 1%	>99%	100%
GDP (\$millions)	\$103.2	7,731.6	\$7,731.7	< 1%	>99%	100%

Connecticut

Participation

In 2009 and 2016, over 384,000 and 531,000 anglers fished in Connecticut, respectively. In each year, the average angler participated in between 6 and 12 fishing trips, of which a large portion was striped bass trips. Compared to all trips, fewer were targeted toward striped bass in 2016 when compared to 2009.

Table CT-1. Total anglers and angler trips in Connecticut

	2009	2016
Total Anglers	531,341	384,749
Total Trips	3,387,779	4,229,759
Striped Bass Trips	1,367,678	1,609,841
Bass Trips % of total	40%	38%

Table CT-2. Trip breakouts by type in Connecticut

	2009	2016
For-Hire	9%	14%
Private	70%	68%
Shore	21%	18%
Total	100%	100%

Spending & Revenues

All stripers landed within the state are caught recreationally, as Connecticut does not have a commercial striped bass fishery. Durable goods spending in Connecticut amounted to \$726 million in 2009 and \$331 million in 2016. Trip spending in 2009 amounted to about 5% of durable goods spending, while in 2016 trip spending amounted closer to 12% of durable good spending. These spending differences may be attributed to the different types of trips taken by anglers in 2016 when compared to 2009.

Table CT-3. Landings, Spending and Revenues Associated with Recreational and Commercial Striped Bass Fishing in Connecticut

	2009	2016
Commercial Landings (lbs)	n/a	n/a
Commercial Revenue	n/a	n/a
Recreational Landings (lbs)	1,458,023	912,159
Recreational Spending (\$000s)	\$760,006.3	\$371,940.0
Trip Spending (\$000s)	\$33,995.9	\$40,953.2
Durable Goods (\$000s)	\$726,010.3	\$330,986.8

Recreational Impacts

In 2016, \$375.1 million was added to the gross domestic product of Connecticut, compared to over \$797.0 million in 2009. Over 4,418 jobs were supported in 2016 with 10,412 supported in 2009.

Table CT-4. 2009 Economic impacts from spending related to recreational striped bass angling in Connecticut

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	7,339	\$319,391.2	\$489,196.1	\$624,638.9	\$78,306.7	\$84,477.9
Multiplier Effect	3,073	\$175,657.6	\$307,778.1	\$481,367.1	\$29,837.0	\$48,739.8
Total	10,412	\$495,048.8	\$796,974.2	\$1,106,006.1	\$108,143.7	\$133,217.6

Table CT-5. 2016 Economic impacts from spending related to recreational striped bass angling in Connecticut

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	3,117	\$153,959.5	\$231,636.4	\$282,787.7	\$36,284.4	\$40,183.0
Multiplier Effect	1,301	\$81,879.3	\$143,456.2	\$224,402.5	\$13,965.4	\$22,719.7
Total	4,418	\$235,838.8	\$375,092.5	\$507,190.2	\$50,249.8	\$62,902.8

Delaware

Participation

In 2016 and 2009, over 271,000 and over 287,000 anglers fished in Delaware, respectively. In each year, the average angler participated in around 8 fishing trips, of which a moderate portion was striped bass trips.

Table DE-1. Total anglers and angler trips in Delaware

	2009	2016
Total Anglers	287,159	271,873
Total Trips	2,949,624	2,129,937
Striped Bass Trips	490,397	313,331
Bass Trips % of total	17%	15%

Table DE-2. Trip breakouts by type in Delaware

	2009	2016
For-Hire	9%	5%
Private	47%	32%
Shore	45%	63%
Total	100%	100%

Spending & Revenues

For Delaware, total landings and their associated expenditures are presented below. We caution about using spending and revenues to make statements about the economic impacts created by the two fisheries, however. The multiplier effects for a dollar associated with each fishery are markedly different. A better approach is to examine each fishery's economic impacts which are in the next section.

Table DE-3. Landings, Spending and Revenues Associated with Recreational and Commercial Striped Bass Fishing in Delaware

	2009	2016
Commercial Landings (lbs)	184,184	136,528
Commercial Revenue (\$000s)	\$321	\$505
Recreational Landings (lbs)	940,135	86,128
Recreational Spending (\$000s)	\$113,143.5	\$61,372.5
Trip Spending (\$000s)	\$31,038.5	\$12,373.8
Durable Goods (\$000s)	\$82,105.0	\$48,998.7

Recreational Economic Impacts

In 2016, \$59.2 million was added to the gross domestic product of Delaware, compared to over \$106.3 million in 2009. Just over 730 jobs were supported in 2016 with 1,432 supported in 2009.

Table DE-4. 2009 Economic impacts from spending related to striped bass angling in Delaware

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	1,001	\$43,051.4	\$67,242.5	\$96,807.6	\$6,330.2	\$9,354.3
Multiplier Effect	431	\$20,874.5	\$39,097.5	\$61,094.6	\$3,105.5	\$5,037.9
Total	1,432	\$63,926.0	\$106,340.0	\$157,902.2	\$9,435.7	\$14,392.2

Table DE-5. 2016 Economic impacts from spending related to striped bass angling in Delaware

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	513	\$24,410.4	\$37,117.7	\$52,134.2	\$3,564.4	\$5,237.3
Multiplier Effect	219	\$11,723.4	\$22,000.4	\$34,549.0	\$1,753.7	\$2,832.3
Total	732	\$36,133.8	\$59,118.1	\$86,683.3	\$5,318.0	\$8,069.6

Commercial Economic Impacts

Commercial landings in Delaware have grown since 2009, with their value having grown 55% by 2016. Commercial revenues for striped bass exceeded \$505,000 and \$326,000 in 2016 and 2009, respectively, supporting an estimated 19 and 14 jobs in each year and adding over \$306,000 in 2009 and \$840,000 in 2016 to state GDP.

Table DE-6. 2009 Economic impacts of commercial striped bass landings in Delaware

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2009	14	\$339	\$307	\$1,598
<i>Harvesters 2009</i>	7	\$142	\$193	\$598
<i>Processors 2009</i>	1	\$41	\$78	\$232
<i>Wholesalers 2009</i>	1	\$44	\$53	\$117
<i>Retailers 2009</i>	5	\$111	\$219	\$652

Table DE-7. 2016 Economic impacts of commercial striped bass landings in Delaware

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2016	19	\$524	\$840	\$2,474
<i>Harvesters 2016</i>	10	\$220	\$298	\$926
<i>Processors 2016</i>	2	\$63	\$121	\$358
<i>Wholesalers 2016</i>	1	\$69	\$82	\$181
<i>Retailers 2016</i>	7	\$172	\$339	\$1,009

Comparisons Between the Fisheries

Table DE-8. Comparison of commercial and recreational impacts: Delaware 2016

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed	136.5	86.1	222.6	61%	39%	100%
Jobs supported	19	732	751	3%	97%	100%
Income (\$000s)	\$524	\$36,133.8	\$36,657.9	1%	99%	100%
GDP (\$000s)	\$840	\$59,118.1	\$59,958.5	1%	99%	100%

Maine

Participation

In 2016 and 2009, over 236,000 and over 453,000 anglers fished in Maine, respectively. In each year, the average angler participated in around 6 to 8 fishing trips, of which a large portion was striped bass trips. Since 2009, the number of striper trips decreased 29%.

Table ME-1. Total anglers and angler trips in Maine

	2009	2016
Total Anglers	453,318	236,650
Total Trips	2,637,343	1,948,397
Striped Bass Trips	1,849,219	1,334,047
Bass Trips % of total	70%	68%

Table ME-2. Trip breakouts by type in Maine

	2009	2016
For-Hire	7%	19%
Private	9%	39%
Shore	84%	42%
Total	100%	100%

Spending & Revenues

All stripers landed within the state are caught recreationally, as Maine does not have a commercial striped bass fishery. Durable goods spending in Maine amounted to over \$159 million in 2016 and just over \$171.5 million in 2009.

Table ME-3. Landings, Spending and Revenues Associated with Recreational and Commercial Striped Bass Fishing in Maine

	2009	2016
Commercial Landings (lbs)	-	-
Commercial Revenue	-	-
Recreational Landings (lbs)	780,607	189,402
Recreational Spending (\$000s)	\$309,115.8	\$202,007.8
Trip Spending (\$000s)	\$137,585.2	\$42,847.7
Durable Goods (\$000s)	\$171,530.6	\$159,160.1

Recreational Impacts

In 2016, \$183.5 million was added to the gross domestic product of Maine, compared to over \$263.8 million in 2009. 3,110 jobs were supported in 2016 with 4,980 supported in 2009.

Table ME-4. 2009 Economic impacts from spending related to striped bass angling in Maine

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	3,372	\$100,368.1	\$158,205.2	\$254,991.8	\$26,126.2	\$23,081.0
Multiplier Effect	1,608	\$60,582.5	\$105,606.6	\$194,229.9	\$11,187.1	\$14,329.3
Total	4,980	\$160,950.6	\$263,811.7	\$449,221.7	\$37,313.3	\$37,410.2

Table ME-5. 2016 Economic impacts from spending related to striped bass angling in Maine

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	2,115	\$72,752.0	\$110,024.8	\$158,031.8	\$19,495.9	\$16,382.7
Multiplier Effect	995	\$41,852.1	\$73,494.0	\$134,424.5	\$7,773.0	\$9,945.9
Total	3,110	\$114,604.1	\$183,518.8	\$292,456.3	\$27,268.9	\$26,328.6

Maryland

Recreational Participation

In 2016 and 2009, over 828,000 and over 884,000 anglers fished in Maryland, respectively. In each year, the average angler participated in around 11 fishing trips, of which a large portion was striped bass trips.

Table MD-1. Total anglers and angler trips in Maryland

	2009	2016
Total Anglers	884,372	828,610
Total Trips	8,843,232	9,364,384
Striped Bass Trips	2,507,456	2,519,453
Bass Trips % of total	28%	27%

Table MD-2. Trip breakouts by type in Maryland

	2009	2016
For-Hire	15%	22%
Private	36%	47%
Shore	49%	31%
Total	100%	100%

Spending & Revenues

For Maryland, total landings and their associated expenditures are presented below. We caution about using spending and revenues to make statements about the economic impacts created by the recreational and commercial fisheries, however. The multiplier effects for a dollar associated with each fishery are markedly different. A better approach is to examine each fishery's economic impacts which are in the next section.

Table MD-3. Landings, Spending and Revenues Associated with Recreational and Commercial Striped Bass Fishing in Maryland

	2009	2016
Commercial Landings (lbs)	2,812,222	1,709,365
Commercial Revenue (\$000s)	\$5,180.4	\$7,102.1
Recreational Landings (lbs)	8,810,540	10,919,144
Recreational Spending (\$000s)	\$705,215.8	\$825,747.8
Trip Spending (\$000s)	\$144,707.9	\$129,361.7
Durable Goods (\$000s)	\$560,507.8	\$696,386.1

Recreational Economic Impacts

In 2016, \$802.8 million was added to the gross domestic product of Maryland, compared to nearly \$664.2 million in 2009. There were 10,193 jobs were supported in 2016 and 9,408 supported in 2009.

Table MD-4. 2009 Economic impact from spending related to recreational striped bass angling in Maryland

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	6,255	\$254,005.6	\$393,524.0	\$617,593.0	\$56,566.0	\$61,137.2
Multiplier Effect	3,153	\$154,919.1	\$270,680.5	\$454,571.2	\$26,328.4	\$38,771.4
Total	9,408	\$408,924.7	\$664,204.6	\$1,072,164.7	\$82,894.9	\$99,908.6

Table MD-5. 2016 Economic impact from spending related to recreational striped bass angling in Maryland

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	6,763	\$309,863.1	\$475,161.0	\$719,692.3	\$68,736.8	\$74,329.6
Multiplier Effect	3,430	\$186,996.7	\$327,630.2	\$545,604.6	\$31,834.7	\$46,881.2
Total	10,193	\$496,859.8	\$802,791.2	\$1,265,296.8	\$100,571.5	\$121,210.7

Commercial Economic Impacts

Commercial landings in Maryland have grown since 2009, with their value having grown 37% by 2016. Commercial harvest produced over \$7.1 million in revenue in 2016 and nearly \$5.2 million in 2009. These revenues created 584 and 475 jobs in 2016 and 2009, respectively.

Table MD-6. 2009 Economic impact of commercial striped bass landings in Maryland

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2009	475	\$9,193	\$12,511	\$24,919
<i>Harvesters 2009</i>	190	\$2,625	\$4,086	\$9,153
<i>Processors 2009</i>	43	\$1,493	\$1,907	\$3,831
<i>Wholesalers 2009</i>	14	\$612	\$813	\$1,801
<i>Retailers 2009</i>	228	\$4,463	\$5,705	\$10,134

Table MD-7. 2016 Economic impact of commercial striped bass landings in Maryland

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2016	584	\$12,570	\$17,110	\$34,092
<i>Harvesters 2016</i>	234	\$3,585	\$5,585	\$12,524
<i>Processors 2016</i>	53	\$2,042	\$2,608	\$5,241
<i>Wholesalers 2016</i>	17	\$838	\$1,112	\$2,464
<i>Retailers 2016</i>	281	\$6,105	\$7,804	\$13,863

Comparisons Between the Fisheries

Table MD-8. Comparison of commercial and recreational impacts: Maryland 2016

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed (000s)	1,709.4	10,919.1	12628.5	14%	86%	100%
Jobs supported	584	10,193	10,777	5%	95%	100%
Income (\$000s)	\$12,569.6	\$496,859.8	\$509,429.7	2%	98%	100%
GDP (\$000s)	\$17,109.7	\$802,791.2	\$819,900.9	2%	98%	100%

Massachusetts

Participation

In 2016 and 2009, over 836,000 and nearly 1.1 million anglers fished in Massachusetts, respectively. In each year, the average angler participated in between 8 and 12 fishing trips, of which majority were striped bass trips.

Table MA-1. Total anglers and angler trips in Massachusetts

	2009	2016
Total Anglers	1,053,717	836,879
Total Trips	12,951,528	7,244,235
Striped Bass Trips	8,112,082	3,637,888
Bass Trips % of total	63%	50%

Table MA-2. Trip breakouts by type in Massachusetts

	2009	2016
For-Hire	17%	17%
Private	29%	55%
Shore	55%	29%
Total	100%	100%

Spending & Revenues

For Massachusetts, total landings and their associated expenditures are presented below. We caution about using spending and revenues to make statements about the economic impacts created by the recreational and commercial fisheries, however. The multiplier effects for a dollar associated with each fishery are markedly different. A better approach is to examine each fishery's economic impacts which are in the next section.

Table MA-3. Sales and spending attributed to striped bass fishing in Massachusetts

	2009	2016
Commercial Landings (lbs)	1,134,279	938,230
Commercial Revenue (\$000s)	\$3,024.9	\$3,812.3
Recreational Landings (lbs)	9,409,753	3,730,639
Recreational Spending (\$000s)	\$1,423,956.5	\$1,621,406.3
Trip Spending (\$000s)	\$479,234.6	\$239,262.1
Durable Goods (\$000s)	\$944,721.9	\$1,382,144.2

Recreational Impacts

In 2016, \$1,675.8 million was added to the gross domestic product of Massachusetts, compared to nearly \$1,424.2 million in 2009. There were 20,715 jobs supported in 2016 and 19,977 supported in 2009.

Table MA-4. 2009 Economic impact from spending related to recreational striped bass angling in Massachusetts

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	12,912	\$627,676.1	\$785,989.0	\$1,208,733.4	\$88,255.0	\$140,108.0
Multiplier Effect	7,065	\$408,646.6	\$638,183.2	\$1,056,073.3	\$49,963.3	\$101,464.8
Total	19,977	\$1,036,322.7	\$1,424,172.3	\$2,264,806.7	\$138,218.3	\$241,572.8

Table MA-5. 2016 Economic impact from spending related to recreational striped bass angling in Massachusetts

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	13,517	\$730,403.4	\$949,861.1	\$1,320,159.2	\$99,884.1	\$167,864.4
Multiplier Effect	7,198	\$460,030.8	\$725,941.3	\$1,192,990.9	\$57,177.1	\$114,927.2
Total	20,715	\$1,190,434.2	\$1,675,802.4	\$2,513,150.1	\$157,061.1	\$282,791.5

Commercial Impacts

Commercial landings fell between 2016 and 2009, though their value grew 26%. Commercial harvest produced over \$3.8 million in revenue in 2016 and over \$3.0 million in 2009. These revenues supported 383 and 337 jobs in 2016 and 2009, respectively.

Table MA-6. 2009 Economic impact of commercial striped bass landings in Massachusetts

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2009	337	\$4,667	\$6,370	\$12,727
<i>Harvesters 2009</i>	70	\$1,740	\$2,564	\$5,536
<i>Processors 2009</i>	10	\$479	\$622	\$1,255
<i>Wholesalers 2009</i>	6	\$318	\$431	\$973
<i>Retailers 2009</i>	252	\$2,129	\$2,752	\$4,962

Table MA-7. 2016 Economic impact of commercial striped bass landings in Massachusetts

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2016	383	\$5,888	\$8,035	\$16,047
<i>Harvesters 2016</i>	79	\$2,198	\$3,236	\$6,979
<i>Processors 2016</i>	11	\$604	\$785	\$1,583
<i>Wholesalers 2016</i>	7	\$401	\$544	\$1,227
<i>Retailers 2016</i>	286	\$2,685	\$3,470	\$6,257

Comparisons Between the Fisheries

Table MA-8. Comparison of commercial and recreational impacts: Massachusetts 2016

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed (000s)	938.2	3,730.6	4668.8	20%	80%	100%
Jobs supported	383	20,715	21,098	2%	98%	100%
Income (\$000s)	\$5,887.8	\$1,190,434.2	\$1,196,322.0	0%	100%	100%
GDP (\$000s)	\$8,035.0	\$1,675,802.4	\$1,683,837.4	0%	100%	100%

New Hampshire

Participation

In both 2016 and 2009, over 134,000 anglers fished in New Hampshire in each year. In each year, the average angler participated in about 6 to 8 fishing trips, of which majority were striped bass trips.

Table NH-1. Total anglers and angler trips in New Hampshire

	2009	2016
Total Anglers	134,381	134,202
Total Trips	834,862	1,060,766
Striped Bass Trips	441,003	682,573
Bass Trips % of total	53%	64%

Table NH-2. Trip breakouts by type in New Hampshire

	2009	2016
For-Hire	48%	33%
Private	27%	50%
Shore	25%	17%
Total	100%	100%

Spending & Revenues

All stripers landed within the state are caught recreationally, as New Hampshire does not have a commercial striped bass fishery. Durable goods spending in New Hampshire amounted to over \$83.3 million in 2016 and over \$31.7 million in 2009.

Table NH-3. Sales and spending attributed to striped bass fishing in New Hampshire

	2009	2016
Commercial Landings (lbs)	-	-
Commercial Revenue	-	-
Recreational Landings (lbs)	221,666	190,941
Recreational Spending (\$000s)	\$51,159.5	\$112,586.5
Trip Spending (\$000s)	\$19,404.1	\$29,284.6
Durable Goods (\$000s)	\$31,755.4	\$83,301.9

Recreational Impacts

In 2016, \$116.3 million was added to the gross domestic product of New Hampshire, compared to nearly \$50.6 million in 2009. There were 1,630 jobs supported in 2016 and 802 supported in 2009.

Table NH-4. 2009 Economic impacts from spending related to striped bass angling in New Hampshire

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	516	\$22,595.5	\$29,051.2	\$41,269.0	\$1,961.9	\$4,853.2
Multiplier Effect	286	\$13,238.0	\$21,536.4	\$36,559.0	\$1,627.9	\$3,200.1
Total	802	\$35,833.5	\$50,587.6	\$77,828.0	\$3,589.8	\$8,053.3

Table NH-5. 2016 Economic impacts from spending related to striped bass angling in New Hampshire

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	1,059	\$53,709.2	\$68,019.8	\$86,799.4	\$4,312.0	\$11,497.9
Multiplier Effect	571	\$29,305.9	\$48,250.1	\$81,549.9	\$3,713.2	\$7,130.9
Total	1,630	\$83,015.1	\$116,269.9	\$168,349.4	\$8,025.2	\$18,628.7

New Jersey

Participation

In 2016 and 2009, over 916,000 and over 1.1 million anglers fished in New Jersey, respectively. In each year, the average angler participated in about 15 fishing trips, of which a large portion was striped bass trips.

Table NJ-1. Total anglers and angler trips in New Jersey

	2009	2016
Total Anglers	1,145,095	916,376
Total Trips	17,659,358	13,851,906
Striped Bass Trips	5,896,247	4,528,666
Bass Trips % of total	33%	33%

Table NJ-2. Trip breakouts by type in New Jersey

	2009	2016
For-Hire	17%	9%
Private	54%	64%
Shore	29%	27%
Total	100%	100%

Spending & Revenues

All strippers landed within the state were caught recreationally, as New Jersey does not have a commercial striped bass fishery. Durable goods spending in New Jersey amounted to over \$1.2 billion in 2016 and over \$1.0 billion in 2009.

Table NJ-3. Sales and spending attributed to striped bass fishing in New Jersey

	2009	2016
Commercial Landings (lbs)	-	-
Commercial Revenue	-	-
Recreational Landings (lbs)	17,039,685	12,790,306
Recreational Spending (\$000s)	\$1,331,054.9	\$1,474,625.0
Trip Spending (\$000s)	\$303,872.3	\$228,134.6
Durable Goods (\$000s)	\$1,027,182.6	\$1,246,490.4

Recreational Impacts

In 2016, \$1,609.1 million was added to the gross domestic product of New Jersey, compared to just over \$1,404.2 million in 2009. There were 18,624 jobs supported in 2016 and 17,836 supported in 2009.

Table NJ-4. 2009 Economic impacts from spending related to striped bass angling in New Jersey

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	11,643	\$544,091.8	\$815,737.9	\$1,139,502.0	\$115,358.7	\$137,056.4
Multiplier Effect	6,193	\$350,688.8	\$588,471.6	\$951,984.8	\$59,536.8	\$92,924.1
Total	17,836	\$894,780.6	\$1,404,209.4	\$2,091,486.8	\$174,895.5	\$229,980.4

Table NJ-5. 2016 Economic impacts from spending related to striped bass angling in New Jersey

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	12,205	\$629,117.6	\$930,385.9	\$1,249,846.4	\$136,849.1	\$157,846.9
Multiplier Effect	6,419	\$402,067.5	\$678,717.8	\$1,094,948.4	\$68,602.0	\$106,932.4
Total	18,624	\$1,031,185.0	\$1,609,103.7	\$2,344,794.7	\$205,451.1	\$264,779.2

New York

Participation

In 2016 and 2008, over 921,000 and nearly 717,000 anglers fished in New York, respectively. In each year, the average angler participated in between 13 and 19 fishing trips, of which a large portion was striped bass trips.

Table NY-1. Total anglers and angler trips in New York

	2009	2016
Total Anglers	716,950	921,501
Total Trips	13,658,548	15,765,211
Striped Bass Trips	3,460,654	4,589,526
Bass Trips % of total	25%	29%

Table NY-2. Trip breakouts by type in New York

	2009	2016
For-Hire	24%	21%
Private	55%	63%
Shore	21%	16%
Total	100%	100%

Spending & Revenues

For New York, total landings and their associated expenditures are presented below. We caution about using spending and revenues to make statements about the economic impacts created by the recreational and commercial fisheries, however. The multiplier effects for a dollar associated with each fishery are markedly different. A better approach is to examine each fishery's economic impacts which are in the next section.

Table NY-3. Sales and spending attributed to striped bass fishing in New York

	2009	2016
Commercial Landings (lbs)	747,054	539,670
Commercial Revenue (\$000s)	\$1,732.1	\$2,261.2
Recreational Landings (lbs)	7,991,243	12,052,880
Recreational Spending (\$000s)	\$453,096.9	\$1,123,820.7
Trip Spending (\$000s)	\$103,347.9	\$197,664.7
Durable Goods (\$000s)	\$349,748.9	\$926,156.0

Recreational Impacts

In 2016, \$1,165.0 million was added to the gross domestic product of New York, compared to nearly \$453.4 million in 2009. There were 13,810 jobs supported in 2016 and 6,035 supported in 2009.

Table NY-4. 2009 Economic impacts from spending related to striped bass angling in New York

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	4,156	\$182,653.2	\$263,382.5	\$385,247.7	\$45,700.7	\$42,464.7
Multiplier Effect	1,879	\$114,718.9	\$190,037.9	\$300,198.8	\$20,405.9	\$28,567.2
Total	6,035	\$297,372.1	\$453,420.3	\$685,446.5	\$66,106.6	\$71,031.9

Table NY-5. 2016 Economic impacts from spending related to striped bass angling in New York

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	9,542	\$465,496.9	\$681,527.2	\$948,496.1	\$118,589.4	\$109,513.8
Multiplier Effect	4,268	\$289,293.6	\$483,510.3	\$762,490.5	\$51,822.9	\$72,439.3
Total	13,810	\$754,790.6	\$1,165,037.5	\$1,710,986.6	\$170,412.3	\$181,953.2

Commercial Impacts

Commercial landings decreased between 2009 and 2016, though their value grew by 30%. Commercial harvest produced over \$2.2 million in revenue in 2016 and over \$1.7 million in 2009. These revenues supported 161 and 138 jobs in 2016 and 2009, respectively.

Table NY-6. 2009 Economic impacts of commercial striped bass landings in New York

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2009	138	\$2,225.3	\$3,112.7	\$6,404.6
<i>Harvesters 2009</i>	64	\$899.0	\$1,382.5	\$3,127.1
<i>Processors 2009</i>	5	\$267.9	\$347.3	\$702.3
<i>Wholesalers 2009</i>	5	\$117.0	\$157.8	\$346.2
<i>Retailers 2009</i>	64	\$942.3	\$1,225.1	\$2,229.0

Table NY-7. 2016 Economic impacts of commercial striped bass landings in New York

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2016	161	\$2,884.8	\$4,035.1	\$8,302.6
<i>Harvesters 2016</i>	75	\$1,165.4	\$1,792.3	\$4,054.0
<i>Processors 2016</i>	6	\$346.2	\$450.0	\$910.5
<i>Wholesalers 2016</i>	6	\$151.7	\$204.6	\$448.8
<i>Retailers 2016</i>	74	\$1,221.4	\$1,588.0	\$2,889.2

Comparisons Between the Fisheries

Table NY-8. Comparison of commercial and recreational impacts: New York, 2016

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed	539.7	12,052.90	12592.6	4%	96%	100%
Jobs supported	161	13,810	13971	1%	99%	100%
Income (\$000s)	\$2,884.8	\$754,790.5	\$757,675.3	0%	100%	100%
GDP (\$000s)	\$4,035.1	\$1,165,037.5	\$1,169,072.6	0%	100%	100%

North Carolina

Participation

In 2016 and 2009, over 1,888,000 and 1,680,000 anglers fished in North Carolina, respectively. In each year, the average angler participated in around 11 fishing trips, of which a small portion were striped bass trips.

Table NC-1. Total anglers and angler trips in North Carolina

	2009	2016
Total Anglers	1,680,781	1,888,821
Total Trips	19,345,187	21,158,845
Striped Bass Trips	539,658	484,444
Bass Trips % of total	3%	2%

Table NC-2. Striped bass trip breakouts by type in North Carolina

	2009	2016
For-Hire	10%	11%
Private	17%	26%
Shore	73%	63%
Total	100%	100%

Spending & Revenues

For North Carolina, total landings and their associated expenditures are presented below. We caution about using spending and revenues to make statements about the economic impacts created by the recreational and commercial fisheries, however. The multiplier effects for a dollar associated with each fishery are markedly different. A better approach is to examine each fishery's economic impacts which are in the next section.

Table NC-3. Sales and spending attributed to striped bass fishing in North Carolina

	2009	2016
Commercial Landings (lbs)	310,613	146,189
Commercial Revenue (\$000s)	\$747.3	\$432.1
Recreational Landings (lbs)	262,389	60,433
Recreational Spending (\$000s)	\$135,753.8	\$144,861.3
Trip Spending (\$000s)	\$53,797.3	\$39,986.7
Durable Goods (\$000s)	\$81,956.5	\$104,874.7

Recreational Impacts

In 2016, \$136.6 million was added to the gross domestic product of North Carolina, compared to nearly \$124.8 million in 2009. There were 1,953 jobs supported in 2016 and 2,063 supported in 2009.

Table NC-4. 2009 Economic impacts from spending related to striped bass angling in North Carolina

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	1,323	\$47,548.6	\$72,608.7	\$114,997.1	\$8,044.2	\$10,806.2
Multiplier Effect	740	\$29,760.3	\$52,219.2	\$94,983.6	\$4,310.0	\$7,287.1
Total	2,063	\$77,308.9	\$124,827.9	\$209,980.7	\$12,354.2	\$18,093.3

Table NC-5. 2016 Economic impacts from spending related to striped bass angling in North Carolina

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	1,242	\$53,126.5	\$79,927.5	\$119,827.8	\$8,717.6	\$11,971.8
Multiplier Effect	711	\$32,012.2	\$56,682.2	\$102,574.2	\$4,668.1	\$7,893.2
Total	1,953	\$85,138.7	\$136,609.6	\$222,402.0	\$13,385.7	\$19,865.0

Commercial Impacts

Commercial landings and revenue decreased between 2009 and 2016. Commercial harvest produced nearly \$460,000 in revenue in 2016 and over \$747,000 in 2009. These revenues supported 28 and 53 jobs in 2016 and 2009, respectively.

Table NC-6. 2009 Economic impacts of commercial striped bass landings in North Carolina

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2009	53	\$1,818.9	\$1,428.9	\$1,850.7
<i>Harvesters 2009</i>	23	\$1,258.8	\$704.5	\$520.9
<i>Processors 2009</i>	4	\$110.8	\$143.1	\$285.0
<i>Wholesalers 2009</i>	1	\$49.0	\$64.7	\$139.8
<i>Retailers 2009</i>	25	\$400.2	\$516.5	\$905.1

Table NC-7. 2016 Economic impacts of commercial striped bass landings in North Carolina

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2016	28	\$625.9	\$829.0	\$1,510.8
<i>Harvesters 2016</i>	12	\$297.5	\$404.3	\$731.7
<i>Processors 2016</i>	2	\$64.2	\$83.0	\$165.2
<i>Wholesalers 2016</i>	1	\$28.0	\$37.0	\$79.7
<i>Retailers 2016</i>	13	\$236.1	\$304.7	\$534.0

Comparisons Between the Fisheries

Table NC-8. Comparison of commercial and recreational impacts: North Carolina 2016

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed (000s)	146.2	60.4	206.6	71%	29%	100%
Jobs supported	28	1,953	1981	1%	99%	100%
Income (\$000s)	\$626.9	\$85,138.7	\$85,764.6	1%	99%	100%
GDP (\$000s)	\$829.0	\$136,609.6	\$137,438.6	1%	99%	100%

Rhode Island

Participation

In 2016 and 2009, over 391,000 and 320,000 anglers fished in Rhode Island, respectively. In each year, the average angler participated in around 12 fishing trips, of which a large portion was striped bass trips.

Table RI-1. Total anglers and angler trips in Rhode Island

	2009	2016
Total Anglers	320,396	391,713
Total Trips	4,062,597	2,998,761
Striped Bass Trips	1,750,240	731,404
Bass Trips % of total	43%	24%

Table RI-2. Trip breakouts by type in Rhode Island

	2009	2016
For-Hire	14%	25%
Private	38%	44%
Shore	48%	31%
Total	100%	100%

Spending & Revenues

For Rhode Island, total landings and their associated expenditures are presented below. We caution about using spending and revenues to make statements about the economic impacts created by the recreational and commercial fisheries, however. The multiplier effects for a dollar associated with each fishery are markedly different. A better approach is to examine each fishery's economic impacts which are in the next section.

Table RI-3. Sales and spending attributed to striped bass fishing in Rhode Island

	2009	2016
Commercial Landings (lbs)	234,790	174,701
Commercial Revenue (\$000s)	\$705.9	\$768.7
Recreational Landings (lbs)	2,185,224	1,775,554
Recreational Spending (\$000s)	\$208,306.3	\$229,135.4
<i>Trip Spending (\$000s)</i>	<i>\$68,765.5</i>	<i>\$20,920.9</i>
<i>Durable Goods (\$000s)</i>	<i>\$139,540.8</i>	<i>\$208,214.5</i>

Recreational Impacts

In 2016, \$241.6 million was added to the gross domestic product of Rhode Island, compared to just over \$201.6 million in 2009. There were 3,410 jobs supported in 2016 and 3,625 supported in 2009.

Table RI-4. 2009 Economic impacts from spending related to striped bass angling in Rhode Island

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	2,535	\$83,924.3	\$110,080.7	\$178,271.0	\$14,742.7	\$18,504.4
Multiplier Effect	1,090	\$51,667.3	\$91,523.2	\$151,115.9	\$8,626.7	\$13,176.1
Total	3,625	\$135,591.6	\$201,603.9	\$329,386.9	\$23,369.4	\$31,680.5

Table RI-5. 2016 Economic impacts from spending related to striped bass angling in Rhode Island

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	2,320	\$98,349.4	\$139,538.9	\$183,589.3	\$18,206.6	\$23,061.8
Multiplier Effect	1,090	\$56,944.1	\$102,012.1	\$166,994.7	\$9,567.7	\$14,600.9
Total	3,410	\$155,293.5	\$241,551.0	\$350,584.0	\$27,774.3	\$37,662.7

Commercial Impacts

Commercial landings and revenue decreased between 2009 and 2016. Commercial harvest produced nearly \$832,000 in revenue in 2016 and over \$705,000 in 2009. These revenues supported 42 and 43 jobs in 2016 and 2009, respectively.

Table RI-6. 2009 Economic impacts of commercial striped bass landings in Rhode Island

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2009	43	\$899.2	\$1,262.7	\$2,499.7
<i>Harvesters 2009</i>	19	\$361.8	\$568.0	\$1,215.9
<i>Processors 2009</i>	3	\$111.1	\$144.3	\$286.6
<i>Wholesalers 2009</i>	1	\$47.4	\$62.3	\$133.7
<i>Retailers 2009</i>	20	\$378.9	\$488.1	\$863.5

Table RI-7. 2016 Economic impacts of commercial striped bass landings in Rhode Island

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2016	42	\$984.6	\$1,379.7	\$2,723.2
<i>Harvesters 2016</i>	19	\$399.7	\$623.7	\$1,325.9
<i>Processors 2016</i>	3	\$120.9	\$157.1	\$312.0
<i>Wholesalers 2016</i>	1	\$51.6	\$67.8	\$144.6
<i>Retailers 2016</i>	20	\$412.4	\$531.1	\$939.7

Comparisons Between the Fisheries

Table RI-8. Comparison of commercial and recreational impacts: Rhode Island 2016

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed (000s)	174.7	1,775.6	1950.3	9%	91%	100%
Jobs supported	42	3,410	3452	1%	99%	100%
Income (\$000s)	\$984.6	\$155,293.5	\$156,278.1	1%	99%	100%
GDP (\$000s)	\$1379.9	\$241,551.0	\$242,930.9	1%	99%	100%

Virginia

Participation

In 2016 and 2009, over 724,000 and over 907,000 anglers fished in Virginia, respectively. In each year, the average angler participated in around 10 fishing trips, of which a moderate portion was striped bass trips.

Table VA-1. Anglers and angler trips in Virginia

	2009	2016
Total Anglers	907,422	724,276
Total Trips	8,410,827	7,247,361
Striped Bass Trips	1,192,172	436,169
Bass Trips % of total	14%	6%

Table VA-2. Trip distribution by type in Virginia

	2009	2016
For-Hire	4%	4%
Private	79%	68%
Shore	18%	28%

Spending & Revenues

For Virginia, total landings and their associated expenditures are presented below. We caution about using spending and revenues to make statements about the economic impacts created by the recreational and commercial fisheries, however. The multiplier effects for a dollar associated with each fishery are markedly different. A better approach is to examine each fishery's economic impacts which are in the next section.

Table VA-3. Sales and spending attributed to striped bass fishing in Virginia

	2009	2016
Commercial Landings (lbs)	2,108,685	1,333,572
Commercial Revenue (\$000s)	\$4,219.4	\$4,968.3
Recreational Landings (lbs)	5,387,784	1,024,378
Recreational Spending (\$000s)	\$249,746.5	\$108,002.9
Trip Spending (\$000s)	\$64,330.4	\$22,552.0
Durable Goods (\$000s)	\$185,416.0	\$85,450.7

Recreational Economic Impacts

In 2016, \$106.6 million was added to the gross domestic product of Virginia, compared to just over \$240.5 million in 2009. There were 1,444 jobs supported in 2016 and 3,582 jobs supported in 2009.

Table VA-4. 2009 Economic impacts from spending related to recreational striped bass angling in Virginia

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	2,362	\$95,282.9	\$142,119.2	\$210,982.3	\$19,266.9	\$22,408.3
Multiplier Effect	1,220	\$56,634.5	\$98,401.3	\$171,009.9	\$8,227.7	\$14,301.0
Total	3,582	\$151,917.4	\$240,520.4	\$381,992.2	\$27,494.6	\$36,711.2

Table VA-5. 2016 Economic impacts from spending related to recreational striped bass angling in Virginia

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)	State/Local Taxes (\$000s)	Federal Taxes (\$000s)
Direct Effect	959	\$42,451.4	\$62,924.8	\$90,355.4	\$8,623.6	\$10,016.5
Multiplier Effect	485	\$25,099.3	\$43,698.4	\$75,556.7	\$3,624.1	\$6,350.9
Total	1,444	\$67,550.7	\$106,623.3	\$165,912.0	\$12,247.6	\$16,367.5

Commercial Economic Impacts

Commercial landings and revenue decreased between 2009 and 2016. Commercial harvest produced nearly \$5.0 million in revenue in 2016 and over \$4.2 million in 2009. These revenues supported 384 and 369 jobs in 2016 and 2009, respectively.

Table VA-6. 2009 Economic impacts of commercial striped bass landings in Virginia

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2009	369	\$7,782.0	\$10,472.8	\$20,063.8
<i>Harvesters 2009</i>	117	\$2,419.2	\$3,523.2	\$7,201.0
<i>Processors 2009</i>	35	\$1,219.8	\$1,574.3	\$3,135.3
<i>Wholesalers 2009</i>	12	\$509.5	\$679.0	\$1,473.8
<i>Retailers 2009</i>	205	\$3,633.5	\$4,696.2	\$8,253.7

Table VA-7. 2016 Economic impacts of commercial striped bass landings in Virginia

	Jobs	Salaries and Wages (\$000s)	GDP (\$000s)	Total Output (\$000s)
Commercial Impacts 2016	384	\$9,016.0	\$12,198.1	\$23,576.0
<i>Harvesters 2016</i>	118	\$2,731.6	\$4,054.1	\$8,502.5
<i>Processors 2016</i>	37	\$1,429.3	\$1,844.6	\$3,673.6
<i>Wholesalers 2016</i>	13	\$597.2	\$795.9	\$1,727.6
<i>Retailers 2016</i>	216	\$4,257.9	\$5,503.4	\$9,672.4

Comparisons Between the Fisheries

Table VA-7. Comparison of commercial and recreational impacts: Virginia

	Commercial Fishery	Recreational Fishery	Total	Commercial Fishery	Recreational Fishery	Total
Pounds landed (000s)	1,333.6	1,024.4	2358.0	57%	43%	100%
Jobs supported	384	1,444	1828	21%	79%	100%
Income (\$000s)	\$9,016.0	\$67,550.7	\$76,566.7	12%	88%	100%
GDP (\$000s)	\$12,198.1	\$106,623.3	\$118,821.4	10%	90%	100%

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APPENDIX
Detailed Recreational Spending Estimates

Striped bass trip spending by category in Connecticut

	2009	2016
Auto Fuel	\$12,899,601	\$14,745,452
Auto Rental	\$0	\$0
Bait	\$6,028,920	\$6,666,297
Boat Fuel	\$8,401,233	\$9,852,220
Boat Rental	\$0	\$0
Charter Fees	\$2,550,466	\$4,807,549
Crew Tips	\$186,223	\$351,025
Fish Processing	\$0	\$0
Food from Grocery Stores	\$3,306,520	\$3,813,712
Food from Restaurants	\$944	\$1,780
Gifts & Souvenirs	\$0	\$0
Ice	\$387,112	\$439,659
Lodging	\$219,231	\$257,094
Parking & Site Access	\$15,659	\$18,364
Public Transportation	\$0	\$0
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in Connecticut

	2009	2016
Tackle	\$56,559,846	\$25,785,534
Rods & Reels	\$93,756,003	\$42,743,197
Binoculars	\$2,128,650	\$970,448
Camping Equipment	\$6,978,358	\$3,181,421
Clothing	\$18,565,446	\$8,463,954
Club Dues	\$3,102,608	\$1,414,474
License Fees	\$5,793,544	\$2,641,266
Magazine Subscriptions	\$5,271,422	\$2,403,232
Taxidermy	\$0	\$0
New Boat	\$42,808,966	\$19,516,532
Used Boat	\$80,878,673	\$36,872,444
New Canoe	\$2,254,160	\$1,027,668
Used Canoe	\$1,340,447	\$611,108
New Accessory	\$35,293,424	\$16,090,210
Used Accessory	\$195,796	\$89,263
Boat Insurance	\$45,284,024	\$20,644,907
Boat Maintenance	\$67,429,016	\$30,740,770
Boat Registration	\$10,256,681	\$4,676,003
Boat Storage	\$208,773,408	\$95,179,429
Boat Purchase Fees	\$1,174,774	\$535,577
New Vehicle Purchase	\$0	\$0
Used Vehicle Purchase	\$8,941,336	\$4,076,339
Vehicle Insurance	\$13,856,309	\$6,317,067
Vehicle Maintenance	\$12,470,678	\$5,685,360
Vehicle Registration	\$2,896,772	\$1,320,633
Vehicle Purchase Fees	\$0	\$0
New Home Purchase	\$0	\$0
Second Home Insurance	\$0	\$0
Second Home Maintenance	\$0	\$0

Striped bass trip spending by category in Delaware

	2009	2016
Auto Fuel	\$10,105,893	\$4,150,903
Auto Rental	\$0	\$0
Bait	\$4,566,129	\$1,948,740
Boat Fuel	\$3,864,916	\$1,059,675
Boat Rental	\$0	\$0
Charter Fees	\$1,338,107	\$279,559
Crew Tips	\$202,624	\$42,333
Fish Processing	\$0	\$0
Food from Grocery Stores	\$5,006,880	\$2,115,802
Food from Restaurants	\$2,425,285	\$1,169,961
Gifts & Souvenirs	\$182,459	\$102,296
Ice	\$834,665	\$336,767
Lodging	\$2,375,242	\$1,091,667
Parking & Site Access	\$136,289	\$76,075
Public Transportation	\$0	\$0
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in Delaware

	2009	2016
Tackle	\$11,353,004	\$6,775,253
Rods & Reels	\$12,377,344	\$7,386,559
Binoculars	\$206,141	\$123,021
Camping Equipment	\$1,029,431	\$614,344
Clothing	\$2,042,319	\$1,218,816
Club Dues	\$246,860	\$147,321
License Fees	\$4,202,978	\$2,508,256
Magazine Subscriptions	\$525,531	\$313,627
Taxidermy	\$13,997	\$8,353
New Boat	\$15,158,970	\$9,046,580
Used Boat	\$7,249,278	\$4,326,229
New Canoe	\$209,958	\$125,299
Used Canoe	\$0	\$0
New Accessory	\$2,165,749	\$1,292,477
Used Accessory	\$0	\$0
Boat Insurance	\$3,608,733	\$2,153,622
Boat Maintenance	\$8,467,035	\$5,052,962
Boat Registration	\$1,581,684	\$943,918
Boat Storage	\$5,920,817	\$3,533,429
Boat Purchase Fees	\$281,217	\$167,825
New Vehicle Purchase	\$0	\$0
Used Vehicle Purchase	\$17,815	\$10,631
Vehicle Insurance	\$2,957,227	\$1,764,816
Vehicle Maintenance	\$2,159,387	\$1,288,680
Vehicle Registration	\$329,570	\$196,681
Vehicle Purchase Fees	\$0	\$0
New Home Purchase	\$0	\$0
Second Home Insurance	\$0	\$0
Second Home Maintenance	\$0	\$0

Striped bass trip spending by category in Maine

	2009	2016
Auto Fuel	\$42,646,594	\$11,122,087
Auto Rental	\$135,248	\$114,536
Bait	\$2,762,752	\$1,020,040
Boat Fuel	\$6,610,166	\$8,911,559
Boat Rental	\$0	\$0
Charter Fees	\$4,867,610	\$4,122,166
Crew Tips	\$189,874	\$160,796
Fish Processing	\$0	\$0
Food from Grocery Stores	\$15,717,963	\$4,046,603
Food from Restaurants	\$17,735,427	\$3,995,496
Gifts & Souvenirs	\$5,389,884	\$1,344,402
Ice	\$299,450	\$130,955
Lodging	\$39,228,202	\$7,212,667
Parking & Site Access	\$1,797,352	\$493,068
Public Transportation	\$204,682	\$173,336
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in Maine

	2009	2016
Tackle	\$19,355,077	\$17,959,222
Rods & Reels	\$24,129,995	\$22,389,782
Binoculars	\$1,310,326	\$1,215,828
Camping Equipment	\$673,671	\$625,087
Clothing	\$10,978,611	\$10,186,853
Club Dues	\$1,006,805	\$934,196
License Fees	\$3,005,608	\$2,788,848
Magazine Subscriptions	\$1,117,849	\$1,037,232
Taxidermy	\$0	\$0
New Boat	\$3,623,756	\$3,362,417
Used Boat	\$31,718,044	\$29,430,594
New Canoe	\$570,029	\$528,920
Used Canoe	\$0	\$0
New Accessory	\$7,943,392	\$7,370,528
Used Accessory	\$0	\$0
Boat Insurance	\$11,774,431	\$10,925,279
Boat Maintenance	\$17,837,467	\$16,551,060
Boat Registration	\$5,507,813	\$5,110,599
Boat Storage	\$30,096,792	\$27,926,265
Boat Purchase Fees	\$162,865	\$151,120
New Vehicle Purchase	\$59,224	\$54,953
Used Vehicle Purchase	\$0	\$0
Vehicle Insurance	\$447,880	\$415,580
Vehicle Maintenance	\$0	\$0
Vehicle Registration	\$207,283	\$192,334
Vehicle Purchase Fees	\$3,701	\$3,435
New Home Purchase	\$0	\$0
Second Home Insurance	\$0	\$0
Second Home Maintenance	\$0	\$0

Striped bass trip spending by category in Maryland

	2009	2016
Auto Fuel	\$46,126,103	\$38,819,419
Auto Rental	\$0	\$0
Bait	\$15,456,411	\$12,256,650
Boat Fuel	\$15,167,168	\$17,708,299
Boat Rental	\$0	\$0
Charter Fees	\$7,980,390	\$10,609,350
Crew Tips	\$483,233	\$642,424
Fish Processing	\$0	\$0
Food from Grocery Stores	\$21,196,020	\$18,348,007
Food from Restaurants	\$12,074,072	\$9,877,969
Gifts & Souvenirs	\$148,036	\$165,547
Ice	\$3,440,686	\$3,237,291
Lodging	\$14,899,003	\$9,210,549
Parking & Site Access	\$3,870,015	\$3,345,586
Public Transportation	\$0	\$0
Tournament Fees	\$3,866,806	\$5,140,638

Striped bass durable goods spending by category in Maryland

	2009	2016
Tackle	\$59,202,621	\$73,554,516
Rods & Reels	\$64,387,181	\$79,995,916
Binoculars	\$3,135,396	\$3,895,479
Camping Equipment	\$9,476,647	\$11,773,975
Clothing	\$18,442,471	\$22,913,293
Club Dues	\$7,180,879	\$8,921,667
License Fees	\$19,534,575	\$24,270,145
Magazine Subscriptions	\$4,427,132	\$5,500,358
Taxidermy	\$0	\$0
New Boat	\$120,865,413	\$150,165,596
Used Boat	\$9,089,126	\$11,292,511
New Canoe	\$0	\$0
Used Canoe	\$0	\$0
New Accessory	\$33,649,729	\$41,807,094
Used Accessory	\$639,997	\$795,145
Boat Insurance	\$34,730,091	\$43,149,356
Boat Maintenance	\$50,982,481	\$63,341,650
Boat Registration	\$10,739,026	\$13,342,379
Boat Storage	\$57,012,541	\$70,833,517
Boat Purchase Fees	\$2,483,657	\$3,085,744
New Vehicle Purchase	\$0	\$0
Used Vehicle Purchase	\$35,311,372	\$43,871,552
Vehicle Insurance	\$9,870,039	\$12,262,733
Vehicle Maintenance	\$4,984,928	\$6,193,373
Vehicle Registration	\$2,166,594	\$2,691,820
Vehicle Purchase Fees	\$722,198	\$897,273
New Home Purchase	\$0	\$0
Second Home Insurance	\$322,934	\$401,220
Second Home Maintenance	\$1,150,820	\$1,429,801

Striped bass trip spending by category in Massachusetts

	2009	2016
Auto Fuel	\$113,691,535	\$57,870,070
Auto Rental	\$1,487,511	\$423,848
Bait	\$30,363,660	\$15,756,588
Boat Fuel	\$55,987,034	\$53,066,138
Boat Rental	\$438,117	\$266,617
Charter Fees	\$47,526,186	\$23,502,651
Crew Tips	\$2,764,500	\$1,367,100
Fish Processing	\$0	\$0
Food from Grocery Stores	\$63,171,930	\$28,056,729
Food from Restaurants	\$55,814,487	\$21,613,451
Gifts & Souvenirs	\$6,584,197	\$2,531,033
Ice	\$3,854,393	\$2,403,015
Lodging	\$77,661,053	\$23,547,014
Parking & Site Access	\$9,996,030	\$5,094,303
Public Transportation	\$9,815,806	\$3,724,856
Tournament Fees	\$78,193	\$38,668

Striped bass durable goods spending by category in Massachusetts

	2009	2016
Tackle	\$87,337,907	\$127,776,840
Rods & Reels	\$103,226,100	\$151,021,537
Binoculars	\$4,834,990	\$7,073,673
Camping Equipment	\$14,052,280	\$20,558,724
Clothing	\$34,995,522	\$51,199,042
Club Dues	\$5,576,900	\$8,159,100
License Fees	\$10,814,283	\$15,821,479
Magazine Subscriptions	\$8,142,149	\$11,912,102
Taxidermy	\$150,897	\$220,765
New Boat	\$157,372,962	\$230,239,314
Used Boat	\$117,592,749	\$172,040,188
New Canoe	\$1,276,337	\$1,867,302
Used Canoe	\$1,043,704	\$1,526,957
New Accessory	\$42,540,370	\$62,237,283
Used Accessory	\$188,621	\$275,956
Boat Insurance	\$30,267,417	\$44,281,744
Boat Maintenance	\$109,054,496	\$159,548,578
Boat Registration	\$12,071,757	\$17,661,186
Boat Storage	\$93,807,615	\$137,242,132
Boat Purchase Fees	\$1,320,348	\$1,931,692
New Vehicle Purchase	\$63,552,773	\$92,978,785
Used Vehicle Purchase	\$5,759,234	\$8,425,857
Vehicle Insurance	\$17,441,174	\$25,516,734
Vehicle Maintenance	\$17,862,428	\$26,133,036
Vehicle Registration	\$2,156,569	\$3,155,097
Vehicle Purchase Fees	\$2,037,109	\$2,980,325
New Home Purchase	\$0	\$0
Second Home Insurance	\$245,208	\$358,743
Second Home Maintenance	\$0	\$0

Striped bass trip spending by category in New Hampshire

	2009	2016
Auto Fuel	\$3,926,063	\$6,266,588
Auto Rental	\$3,381	\$9,356
Bait	\$1,142,753	\$1,743,894
Boat Fuel	\$2,809,600	\$7,775,240
Boat Rental	\$0	\$0
Charter Fees	\$5,860,126	\$6,098,554
Crew Tips	\$428,790	\$446,236
Fish Processing	\$0	\$0
Food from Grocery Stores	\$1,906,642	\$2,800,154
Food from Restaurants	\$1,241,623	\$1,351,472
Gifts & Souvenirs	\$51,903	\$54,332
Ice	\$173,177	\$324,733
Lodging	\$1,434,073	\$1,501,220
Parking & Site Access	\$408,073	\$894,249
Public Transportation	\$17,866	\$18,593
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in New Hampshire

	2009	2016
Tackle	\$4,794,746	\$12,577,740
Rods & Reels	\$4,952,983	\$12,992,832
Binoculars	\$67,208	\$176,303
Camping Equipment	\$319,026	\$836,879
Clothing	\$1,299,924	\$3,410,005
Club Dues	\$108,894	\$285,655
License Fees	\$1,055,763	\$2,769,513
Magazine Subscriptions	\$216,938	\$569,078
Taxidermy	\$0	\$0
New Boat	\$800,542	\$2,100,009
Used Boat	\$8,181,525	\$21,462,052
New Canoe	\$104,640	\$274,496
Used Canoe	\$0	\$0
New Accessory	\$849,885	\$2,229,447
Used Accessory	\$28,074	\$73,645
Boat Insurance	\$2,032,408	\$5,331,480
Boat Maintenance	\$2,848,263	\$7,471,659
Boat Registration	\$1,162,956	\$3,050,704
Boat Storage	\$966,436	\$2,535,187
Boat Purchase Fees	\$96,984	\$254,411
New Vehicle Purchase	\$0	\$0
Used Vehicle Purchase	\$0	\$0
Vehicle Insurance	\$578,500	\$1,517,541
Vehicle Maintenance	\$1,021,734	\$2,680,246
Vehicle Registration	\$267,982	\$702,979
Vehicle Purchase Fees	\$0	\$0
New Home Purchase	\$0	\$0
Second Home Insurance	\$0	\$0
Second Home Maintenance	\$0	\$0

Striped bass trip spending by category in New Jersey

	2009	2016
Auto Fuel	\$81,049,808	\$62,301,304
Auto Rental	\$0	\$0
Bait	\$43,780,430	\$35,508,587
Boat Fuel	\$52,578,269	\$46,548,834
Boat Rental	\$2,864,305	\$1,800,973
Charter Fees	\$32,165,033	\$12,865,321
Crew Tips	\$2,290,685	\$916,225
Fish Processing	\$13,015	\$5,206
Food from Grocery Stores	\$43,572,797	\$33,135,956
Food from Restaurants	\$19,771,357	\$15,385,086
Gifts & Souvenirs	\$593,247	\$447,460
Ice	\$4,847,311	\$4,034,358
Lodging	\$10,639,783	\$7,354,648
Parking & Site Access	\$9,706,217	\$7,830,640
Public Transportation	\$0	\$0
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in New Jersey

	2009	2016
Tackle	\$102,877,200	\$124,841,914
Rods & Reels	\$150,229,796	\$182,304,488
Binoculars	\$2,014,046	\$2,444,053
Camping Equipment	\$11,460,113	\$13,906,896
Clothing	\$41,612,888	\$50,497,414
Club Dues	\$8,641,736	\$10,486,783
License Fees	\$4,890,335	\$5,934,442
Magazine Subscriptions	\$10,726,563	\$13,016,729
Taxidermy	\$0	\$0
New Boat	\$35,165,367	\$42,673,321
Used Boat	\$74,172,222	\$90,008,302
New Canoe	\$1,454,231	\$1,764,716
Used Canoe	\$122,258	\$148,361
New Accessory	\$61,238,573	\$74,313,266
Used Accessory	\$1,055,283	\$1,280,590
Boat Insurance	\$50,055,150	\$60,742,134
Boat Maintenance	\$128,808,843	\$156,310,072
Boat Registration	\$9,214,420	\$11,181,738
Boat Storage	\$257,932,984	\$313,002,759
Boat Purchase Fees	\$1,081,021	\$1,311,824
New Vehicle Purchase	\$24,972,880	\$30,304,695
Used Vehicle Purchase	\$1,943,265	\$2,358,160
Vehicle Insurance	\$25,320,352	\$30,726,353
Vehicle Maintenance	\$17,109,737	\$20,762,738
Vehicle Registration	\$2,277,866	\$2,764,200
Vehicle Purchase Fees	\$836,505	\$1,015,102
New Home Purchase	\$0	\$0
Second Home Insurance	\$649,900	\$788,656
Second Home Maintenance	\$1,319,103	\$1,600,738

Striped bass trip spending by category in New York

	2009	2016
Auto Fuel	\$21,779,017	\$40,037,865
Auto Rental	\$0	\$0
Bait	\$13,584,999	\$25,617,396
Boat Fuel	\$27,877,148	\$61,426,627
Boat Rental	\$29,109	\$64,142
Charter Fees	\$17,679,269	\$28,993,819
Crew Tips	\$1,901,152	\$3,117,870
Fish Processing	\$0	\$0
Food from Grocery Stores	\$16,082,269	\$30,371,819
Food from Restaurants	\$2,628,535	\$4,691,178
Gifts & Souvenirs	\$41,784	\$68,525
Ice	\$1,008,602	\$2,080,941
Lodging	\$170,348	\$279,370
Parking & Site Access	\$560,894	\$907,251
Public Transportation	\$4,821	\$7,907
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in New York

	2009	2016
Tackle	\$44,487,847	\$117,806,460
Rods & Reels	\$44,648,672	\$118,232,334
Binoculars	\$1,884,384	\$4,989,961
Camping Equipment	\$4,142,003	\$10,968,271
Clothing	\$14,577,424	\$38,601,885
Club Dues	\$3,529,048	\$9,345,127
License Fees	\$1,741,766	\$4,612,298
Magazine Subscriptions	\$4,739,787	\$12,551,237
Taxidermy	\$0	\$0
New Boat	\$37,375,132	\$98,971,568
Used Boat	\$15,763,888	\$41,743,712
New Canoe	\$697,920	\$1,848,134
Used Canoe	\$0	\$0
New Accessory	\$17,344,829	\$45,930,136
Used Accessory	\$154,756	\$409,804
Boat Insurance	\$24,287,615	\$64,315,047
Boat Maintenance	\$52,343,999	\$138,610,015
Boat Registration	\$5,052,334	\$13,378,880
Boat Storage	\$59,116,857	\$156,544,945
Boat Purchase Fees	\$822,332	\$2,177,583
New Vehicle Purchase	\$0	\$0
Used Vehicle Purchase	\$4,387,793	\$11,619,135
Vehicle Insurance	\$7,913,806	\$20,956,227
Vehicle Maintenance	\$3,623,115	\$9,594,224
Vehicle Registration	\$974,054	\$2,579,352
Vehicle Purchase Fees	\$0	\$0
New Home Purchase	\$0	\$0
Second Home Insurance	\$30,344	\$80,354
Second Home Maintenance	\$109,240	\$289,273

Striped bass trip spending by category in North Carolina

	2009	2016
Auto Fuel	\$14,541,397	\$10,782,072
Auto Rental	\$2,356	\$2,011
Bait	\$2,404,158	\$1,736,162
Boat Fuel	\$2,694,439	\$3,051,372
Boat Rental	\$0	\$0
Charter Fees	\$2,848,260	\$2,431,720
Crew Tips	\$309,462	\$264,205
Fish Processing	\$505	\$431
Food from Grocery Stores	\$7,012,112	\$5,151,871
Food from Restaurants	\$5,204,542	\$3,735,388
Gifts & Souvenirs	\$936,933	\$622,346
Ice	\$861,175	\$655,422
Lodging	\$15,333,028	\$10,477,052
Parking & Site Access	\$1,584,644	\$1,027,795
Public Transportation	\$64,311	\$48,806
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in North Carolina

	2009	2016
Tackle	\$6,881,508	\$8,805,838
Rods & Reels	\$8,620,002	\$11,030,481
Binoculars	\$152,408	\$195,027
Camping Equipment	\$1,233,457	\$1,578,378
Clothing	\$2,509,498	\$3,211,248
Club Dues	\$231,600	\$296,364
License Fees	\$1,304,431	\$1,669,199
Magazine Subscriptions	\$507,279	\$649,133
Taxidermy	\$45,573	\$58,317
New Boat	\$25,967,588	\$33,229,108
Used Boat	\$12,596,798	\$16,119,339
New Canoe	\$0	\$0
Used Canoe	\$5,977	\$7,648
New Accessory	\$3,077,291	\$3,937,818
Used Accessory	\$91,146	\$116,634
Boat Insurance	\$2,480,361	\$3,173,964
Boat Maintenance	\$5,922,236	\$7,578,317
Boat Registration	\$822,553	\$1,052,571
Boat Storage	\$2,611,850	\$3,342,222
Boat Purchase Fees	\$632,044	\$808,787
New Vehicle Purchase	\$0	\$0
Used Vehicle Purchase	\$2,672,365	\$3,419,659
Vehicle Insurance	\$1,002,604	\$1,282,970
Vehicle Maintenance	\$1,057,142	\$1,352,759
Vehicle Registration	\$243,554	\$311,660
Vehicle Purchase Fees	\$29,884	\$38,241
New Home Purchase	\$0	\$0
Second Home Insurance	\$955,537	\$1,222,741
Second Home Maintenance	\$301,827	\$386,229

Striped bass trip spending by category in Rhode Island

	2009	2016
Auto Fuel	\$27,122,139	\$6,770,910
Auto Rental	\$0	\$0
Bait	\$7,644,614	\$1,946,308
Boat Fuel	\$9,634,743	\$3,403,111
Boat Rental	\$46,818	\$25,224
Charter Fees	\$5,569,278	\$3,000,592
Crew Tips	\$1,037,712	\$559,094
Fish Processing	\$0	\$0
Food from Grocery Stores	\$10,399,137	\$2,731,563
Food from Restaurants	\$4,928,849	\$1,599,808
Gifts & Souvenirs	\$0	\$0
Ice	\$476,801	\$170,153
Lodging	\$1,651,155	\$640,614
Parking & Site Access	\$185,800	\$36,614
Public Transportation	\$68,426	\$36,866
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in Rhode Island

	2009	2016
Tackle	\$13,917,648	\$20,767,095
Rods & Reels	\$15,357,098	\$22,914,958
Binoculars	\$424,529	\$633,458
Camping Equipment	\$1,672,448	\$2,495,528
Clothing	\$6,144,814	\$9,168,929
Club Dues	\$1,097,852	\$1,638,151
License Fees	\$1,234,097	\$1,841,446
Magazine Subscriptions	\$934,952	\$1,395,080
Taxidermy	\$1,975	\$2,946
New Boat	\$7,669,170	\$11,443,484
Used Boat	\$12,211,633	\$18,221,480
New Canoe	\$1,430,565	\$2,134,605
Used Canoe	\$0	\$0
New Accessory	\$6,556,508	\$9,783,236
Used Accessory	\$25,669	\$38,302
Boat Insurance	\$6,672,020	\$9,955,595
Boat Maintenance	\$17,394,838	\$25,955,554
Boat Registration	\$1,782,035	\$2,659,048
Boat Storage	\$32,276,069	\$48,160,450
Boat Purchase Fees	\$133,282	\$198,876
New Vehicle Purchase	\$140,193	\$209,188
Used Vehicle Purchase	\$5,569,231	\$8,310,079
Vehicle Insurance	\$3,599,613	\$5,371,131
Vehicle Maintenance	\$2,541,252	\$3,791,906
Vehicle Registration	\$491,664	\$733,632
Vehicle Purchase Fees	\$172,774	\$257,802
New Home Purchase	\$0	\$0
Second Home Insurance	\$43,440	\$64,819
Second Home Maintenance	\$45,415	\$67,765

Striped bass trip spending by category in Virginia

	2009	2016
Auto Fuel	\$19,232,803	\$6,805,761
Auto Rental	\$185,275	\$102,590
Bait	\$7,082,542	\$2,632,612
Boat Fuel	\$17,905,951	\$5,422,516
Boat Rental	\$0	\$0
Charter Fees	\$1,236,529	\$468,755
Crew Tips	\$66,563	\$25,233
Fish Processing	\$0	\$0
Food from Grocery Stores	\$7,438,895	\$2,606,255
Food from Restaurants	\$2,143,152	\$815,516
Gifts & Souvenirs	\$380,827	\$206,263
Ice	\$2,099,282	\$719,374
Lodging	\$4,632,018	\$1,860,711
Parking & Site Access	\$1,920,858	\$884,431
Public Transportation	\$5,711	\$2,165
Tournament Fees	\$0	\$0

Striped bass durable goods spending by category in Virginia

	2009	2016
Tackle	\$26,210,384	\$12,079,301
Rods & Reels	\$29,060,798	\$13,392,941
Binoculars	\$608,850	\$280,594
Camping Equipment	\$4,078,055	\$1,879,410
Clothing	\$6,573,098	\$3,029,274
Club Dues	\$738,076	\$340,149
License Fees	\$6,140,690	\$2,829,995
Magazine Subscriptions	\$1,344,441	\$619,598
Taxidermy	\$255,966	\$117,964
New Boat	\$10,156,617	\$4,680,772
Used Boat	\$539,267	\$248,526
New Canoe	\$1,650,109	\$760,468
Used Canoe	\$203,778	\$93,913
New Accessory	\$7,726,186	\$3,560,685
Used Accessory	\$745,531	\$343,585
Boat Insurance	\$14,162,604	\$6,526,969
Boat Maintenance	\$36,958,456	\$17,032,651
Boat Registration	\$2,403,095	\$1,107,489
Boat Storage	\$20,753,098	\$9,564,259
Boat Purchase Fees	\$149,106	\$68,717
New Vehicle Purchase	\$0	\$0
Used Vehicle Purchase	\$4,152,608	\$1,913,768
Vehicle Insurance	\$4,326,565	\$1,993,938
Vehicle Maintenance	\$2,564,627	\$1,181,932
Vehicle Registration	\$748,016	\$344,730
Vehicle Purchase Fees	\$106,859	\$49,247
New Home Purchase	\$0	\$0
Second Home Insurance	\$2,040,270	\$940,277
Second Home Maintenance	\$1,018,892	\$469,566