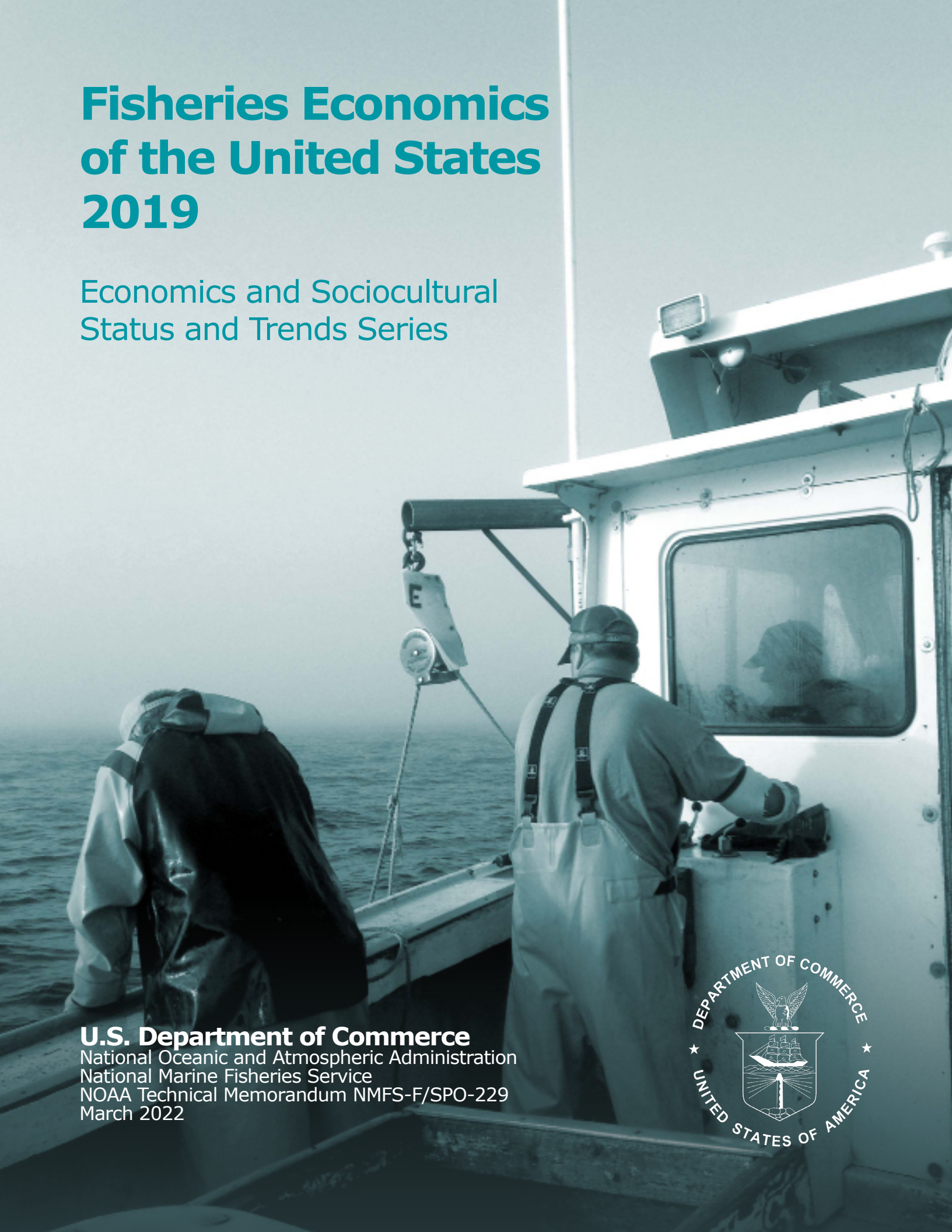
Fisheries Economics of the United States 2019

Economics and Sociocultural Status and Trends Series



U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
NOAA Technical Memorandum NMFS-F/SPO-229
March 2022

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Front cover: Commercial fishermen pulling up black sea bass pot traps. Photo: NOAA Fisheries/Noelle Olsen
Inside cover: Commercial fisherman, Layne Nakagawa, holding a bottomfish in Hawai'i.
Photo: Western Pacific Regional Fishery Management Council/Layne Nakagawa

Fisheries Economics of the United States 2019

Economics and Social Analysis Division
Office of Science and Technology
NOAA Fisheries (NMFS)
1315 East-West Highway, 12th floor
Silver Spring, MD 20910

NOAA TECHNICAL MEMORANDUM NMFS-F/SPO-229
MARCH 2022

U.S. Department of Commerce
Gina M. Raimondo, Secretary of Commerce

National Oceanic and Atmospheric Administration
Dr. Richard W. Spinrad, NOAA Administrator

National Marine Fisheries Service
Janet Coit, Assistant Administrator for Fisheries

NOAA Fisheries Publications

Each year NOAA Fisheries produces three annual reports covering different aspects of the status of United States marine fisheries.

Status of Stocks is an annual report to Congress on the status of U.S. fisheries and is required by the Magnuson-Stevens Fishery Conservation and Management Act. This report, which is published each spring, summarizes the number of stocks on the overfished, overfishing, and rebuilt lists for U.S. federally managed fish stocks and stock complexes. The report also shows trends over time, discusses the value and contributions of our partners, and highlights how management actions taken by NOAA Fisheries have improved the status of U.S. federally managed stocks.
https://www.fisheries.noaa.gov/national/population-assessments/fishery-stock-status-updates#2018-quarterly-updates

Fisheries of the United States, published each fall, has been produced in its various forms for more than 100 years. It is the NOAA Fisheries yearbook of fishery statistics for the United States. It provides a snapshot of data, primarily at the national level, on U.S. recreational catch and commercial fisheries landings and value. In addition, data are reported on U.S. aquaculture production, the U.S. fishery processing industry, imports and exports of fishery-related products, and domestic supply and per capita consumption of fishery products. The focus is not on economic analysis, although value of landings, processed products, and foreign trade are included.
https://www.fisheries.noaa.gov/national/commercial-fishing/fisheries-united-states

Fisheries Economics of the United States, published each fall, provides a detailed look at the economic performance of commercial and recreational fisheries and other marine-related sectors on a state, regional, and national basis. The economic impact of commercial and recreational fishing activities in the United States is also reported in terms of employment, sales and value-added impacts. The report provides management highlights for each region that include a summary of stock status, updates on catch share programs, and other selected management issues.
https://www.fisheries.noaa.gov/national/commercial-fishing/fisheries-economics-united-states

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Economics and Social Analysis Division
Office of Science and Technology
NOAA Fisheries (NMFS)
1315 East-West Highway, 12th floor
Silver Spring, MD 20910

Or online at:

https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-economics-united-states

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Fishing boats at harbor (Kodiak, Alaska).
Photo: NOAA Fisheries/Noelle Olsen

Preface

Fisheries Economics of the United States, 2019

Fisheries Economics of the United States, 2019, is the thirteenth volume in this annual series, which is intended to provide the public with easily accessible economic information about the nation's commercial and recreational fishing activities and fishing-related industries. Summary data is available online in the FEUS tool, available from https://www.st.nmfs.noaa.gov/data-and-tools/FEUS/explore-the-data.

This year's report covers the years 2010 to 2019 and provides descriptive statistics for the following categories: economic impacts of the commercial fishing and seafood industry; commercial fisheries landings, revenue, and price trends; saltwater angler expenditures and economic impacts of marine recreational fishing; recreational fishing catch, effort, and participation rates; and employer and non-employer establishments, payroll, employees, and annual receipt information for fishing-related industries.

The report also provides management highlights for each region that include a summary of stock status, updates on catch share programs, and other selected management issues. Economic performance indicators for catch share programs are reported.

Sources of Data

Information in this report came from many sources. Commercial landings, revenue, and price data, as well as recreational fishing effort and participation data, were primarily obtained from the Fisheries Statistics Division, Office of Science and Technology, NOAA Fisheries. Other data sources included the NOAA Alaska Fisheries Science Center; Alaska Department of Fish and Game; California Department of Fish and Game; Oregon Department of Fish and Wildlife; Washington Department of Fish and Wildlife; the Pacific Coast Fisheries Information Network (PacFIN; Texas Parks and Wildlife Department; and Western Pacific Fisheries Information Network (WPacFIN. Economic impacts from the commercial fishing and seafood industry and recreational fishing sectors are from two separate national IMPLAN models of the Economics and Sociocultural Analysis Division, Office of Science and Technology, NOAA Fisheries. Fishing-related industry information was obtained from the U.S. Census Bureau, Bureau of Economic Analysis, and the Bureau of Labor Statistics.

Acknowledgments

Many people participated in the production of this report. Shelley Arenas and Alex Richardson are the editors of this report series; Rita Curtis, Sabrina Lovell, and Alex Richardson were primary authors and analysts on this edition of Fisheries Economics of the United States. Key collaborators include Emily Markowitz, Molly Graham, Lauren Dolinger Few, Michael Liddel, and Michael Lewis. Other colleagues who provided information and expertise included Mike Brown (California Department of Fish and Wildlife), and Jason Edwards and Rob Ames (Pacific States Marine Fisheries Commission). The report's design and layout was done by Avi Litwack and Jacqui Fenner.

Address all comments and questions to:
Kathryn Cuff | Kathryn.Cuff@noaa.gov

Economics and Social Analysis Division

Office of Science and Technology
NOAA Fisheries (NMFS)
1315 East-West Highway, 12th floor
Silver Spring, MD 20910-3282
Phone: 301-427-8121

Commercial Fisheries

What Does the Term Mean?

Commercial fisheries, in this report, refers to fishing operations that sell their catch for profit. It does not include saltwater anglers who fish for sport or subsistence fishermen. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species and species groups.

Metrics Definitions[1]

Economic Impacts
The employment, personal income, and output generated by the commercial harvest sector and other major components of the U.S. seafood industry.

Landings Revenue
The price that fishermen are paid for their catch.

Landings
The poundage or number of fish unloaded by commercial fishermen or brought to shore.

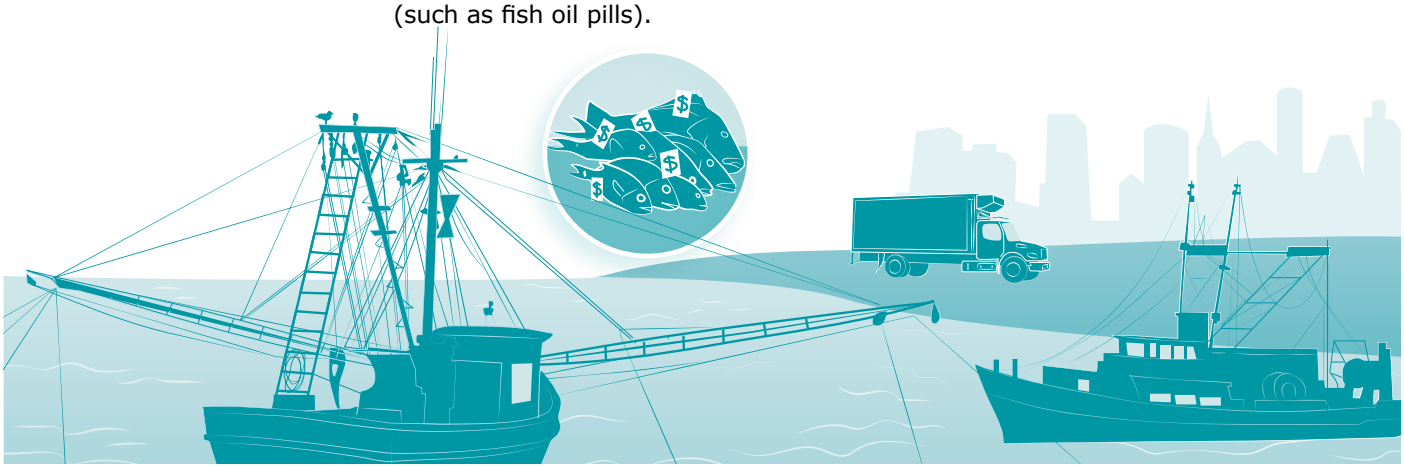
Ex-vessel Prices
The price received by a captain, at the point of landing, for the catch.

Frequently Asked Questions

What are fish caught with in commercial fishing?
Fish can be caught using a variety of gear, including potts and traps, trawls and seines, gillnets, dredges, and hooks and lines.

What happens to seafood caught by commercial fishermen?
Fish caught by commercial fishermen are first processed and packaged. Then they are sold to various establishments for consumption, such as restaurants and supermarkets. They can also be used as animal food and for medical purposes (such as fish oil pills).

Does the United States get seafood from anywhere else?
Not all fish are caught by U.S. commercial fishermen. A large percent of the seafood the U.S. receives is imported.



[1] For full definitions, see the Glossary at the back of this publication.

Recreational Fisheries

What Does the Term Mean?

Recreational fisheries, or recreational fishing, refer to fishing for pleasure rather than selling the fish for profit (i.e., commercial fishing) or for subsistence. The recreational fisheries section of Fisheries Economics of the U.S. reports on angler trips, participation, expenditures and economic impacts, and catch of key species and species groups. Only saltwater, or marine, recreational fishing is included in FEUS.

Metrics Definitions

Economic Impacts and Expenditures
The employment, sales, and personal income generated by expenditures on fishing trips and fishing-related durable goods (i.e. equipment used for recreational fishing).

Fishing Trips/ Effort
The number of fishing trips taken by recreational fishermen (anglers).

Participation
The number of anglers who fish in a given state or region. Anglers can be from in-state or out-of-state and from a coastal county or non-coastal county.

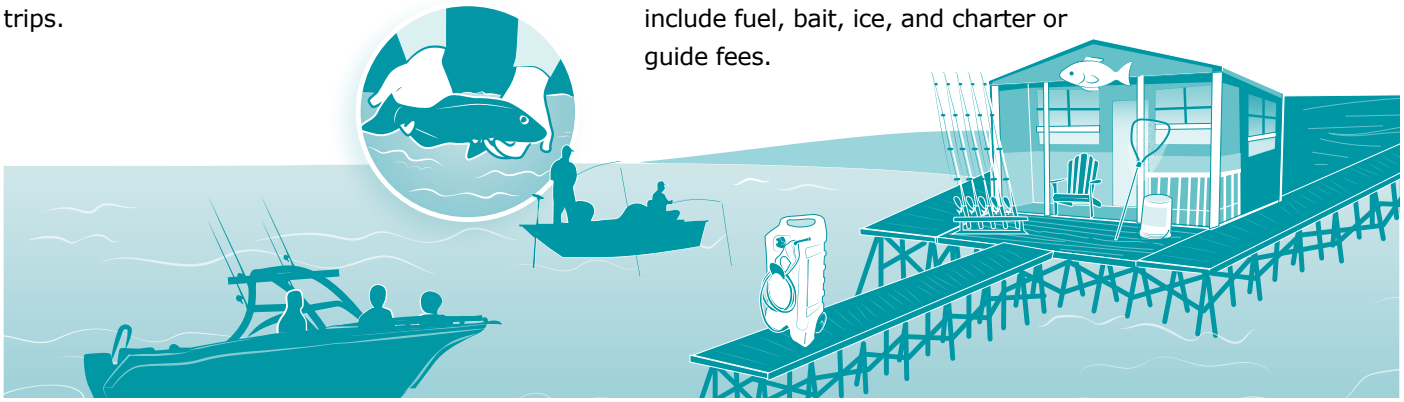
Harvest and Release
The total number or fish either: 1) caught and kept (**harvested**), or 2) caught and **released**, by recreational anglers from an area over a period of time. Total catch is the sum of the number of fish harvested and released.

Frequently Asked Questions

How do anglers affect the fishing economy?
When anglers participate in fishing activities, they support sales and employment in recreational fishing and other types of businesses. Anglers buy fishing equipment from bait and tackle shops, rent or buy boats, or pay to have others take them on charter boats to fish. They may also pay for food and drink at local restaurants, purchase gas for their boat, and stay in hotels for overnight fishing trips.

What do anglers spend their money on?
Durable goods, such as fishing tackle, equipment, and boat and vehicle expenses. Trips, which can be taken in one of three modes: as for-hire (charter or party boat), private (or rental boat), and shore (fishing from shore). Some examples of trip expenditures include fuel, bait, ice, and charter or guide fees.

What do anglers do with their catch?
Some anglers catch fish to eat (i.e., harvest), while others practice catch and release. In recreational fishing, anglers do not sell the fish they catch for profit.



Marine Economy

What Does the Term Mean?

The "Marine Economy," in this report, refers to the economic activity generated by sectors of the economy that depend directly on oceans (or Great Lakes). We report on two industry sectors within the marine economy: 1) seafood sales and processing; and 2) transport, support, and marine operations. Information such as the number of establishments, number of employees, and annual payroll for these fishing and marine-related industries is used to determine their relative levels of economic activity in a state.

Metrics Definitions

Seafood Sales and Processing
These sectors are a direct representation of the Establishments, Employees, Sales, and Payroll for seafood processors, wholesalers, and retailers that buy fish from commercial fishermen and distribute to consumers.

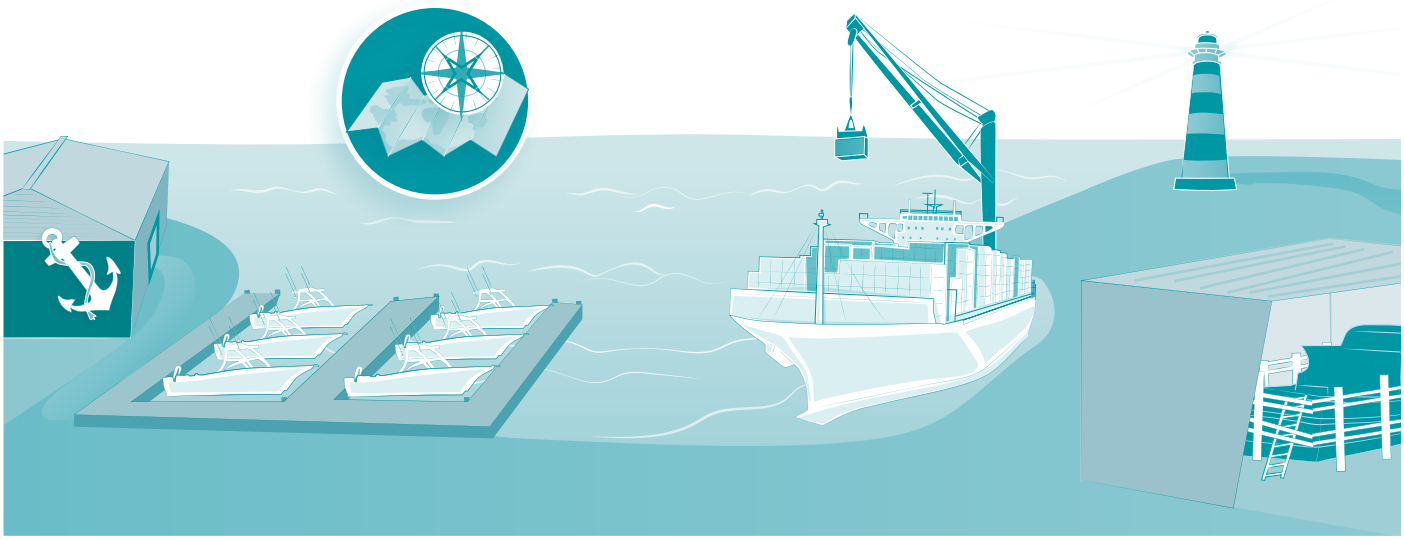
Transport, Support, and Marine Operations
The various sectors that contribute to the overall marine economy that may or may not support the fishing economy.

Frequently Asked Questions

Does the marine economy include commercial and recreational fisheries?
Yes, commercial and recreational fisheries contribute to the overall marine economy.

What marine economy sectors, featured in the report, are related to commercial and recreational fisheries?
The seafood product preparation & packaging, wholesale, and retail seafood sales sectors are major parts of the commercial fishing industry. The Marinas, Navigational Services, Port & Harbor operations, and Ship & Boat Building sectors provide goods and services used in both commercial and recreational fisheries.

Why does the report include sectors that are independent of the fishing economy?
Information on sectors that are independent of the fishing economy, like freight transportation, provides context for how national and regional economies are affected by the use of ocean resources.



National Overview

Locals fishing off the dock in Chincoteague Channel (Chincoteague, Virginia)
Photo: NOAA Fisheries/Emily Markowitz

MANAGEMENT CONTEXT

The authority to manage federal fisheries in the United States was granted to the Secretary of Commerce by the Magnuson-Stevens Fishery Conservation and Management Act (P.L. 94-265 as amended by P.L. 109-479). NOAA Fisheries is the federal agency with delegated authority from the Secretary of Commerce to oversee fishing activities in federal waters. Federal fisheries are generally defined as fishing activities that take place in the U.S. Exclusive Economic Zone (EEZ, between 3 and 200 nautical miles from the coastline). Generally, individual states retain management authority over fishing activities within three nautical miles of their coasts.

Regional Fishery Management Councils

- North Pacific
- Pacific
- Western Pacific
- New England
- Mid-Atlantic
- South Atlantic
- Gulf of Mexico
- Caribbean

Nationwide, 46 fishery management plans (FMPs) provide a framework for managing the harvest of 461 fish stocks and stock complexes.[1] These plans aim to manage the harvest of fish in U.S. and shared waters, using sound scientific research, to maximize fishing opportunity while ensuring the sustainability of fisheries and fishing communities. Regional Fishery Management Councils (FMCs) develop FMPs in eight regions nationwide: North Pacific, Pacific, Western Pacific, New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, and Caribbean. After an FMP is developed, the Secretary of Commerce in consultation with NOAA Fisheries must approve it before it is implemented.

Fishery management plans must specify objective and measurable criteria to determine when a stock is overfished or subject to overfishing. Enough information exists to determine the overfishing status for 321 (or 70%) of the 479 stocks and stock complexes. At the end of 2019, 22 stocks (7% of stocks with known status) were subject to overfishing. The overfished status of 244 (or 53%) of the 479 stocks and stock complexes is known. At the end of 2019, 46 stocks (19% of stocks with known status) were categorized as overfished.[2]

At the end of 2019, there were 22 stocks on the overfishing list and 46 on the overfished list. Southern California cowcod and American plaice were rebuilt in 2019 bringing the total number of stocks rebuilt since 2000 to 47.

Transboundary and International Fisheries

NOAA Fisheries is also actively involved in negotiating conservation and management measures, including total allowable catch levels, fishery allocations, and monitoring and control schemes, for internationally shared fisheries resources. Shared fisheries resources include those in areas where the EEZ of the U.S. overlaps with other nations (transboundary areas and in areas beyond the U.S. EEZ, i.e., international waters or the high seas. The Gulf of Alaska and the Gulf of Maine are examples of these transboundary areas. An area in the Bering Sea outside the EEZs of Canada, Japan, and Russia, called the Donut Hole, is an example of international waters. Loss of sea ice will create new transboundary areas and international waters in the Arctic.

NOAA Fisheries participates in various international and regional fisheries management organizations (RFMOs) that promote international cooperation to achieve effective, responsible marine stewardship and ensure sustainable fisheries management. The commitment to conserving and protecting all species associated with, or affected by, fishing activities is outlined in the Food and Agriculture Organization's (FAO) Code of Conduct for Responsible Fisheries established in 1995.

RFMOs are multinational organizations with interests in internationally shared fish stocks and associated fishing activities. Primary objectives of these RFMOs are to research, assess, and adopt measures for the conservation and coordinated management of target species, such as bigeye tuna. Some RFMOs also collect data and evaluate and adopt measures for the conservation and scientific assessment of non-target species, also known as bycatch. Non-target species include seabirds, marine mammals, sea turtles, and fish species caught incidentally while fishing for target species. These entities are listed by ocean basin below.[3]

[1] Fishery management plans and fishery ecosystem plans for each region covered in this report are listed in their respective sections. The four FMPs developed by the Caribbean Fishery Management Council and the Atlantic Highly Migratory Species FMP developed by NOAA Fisheries are not included in this report.
[2] NOAA Fisheries. 2019. Status of Stocks 2018. Office of Sustainable Fisheries. [Available at https://www.fisheries.noaa.gov/feature-story/status-stocks-2018]
[3] See https://www.fisheries.noaa.gov/international-affairs/international-and-regional-fisheries-management-organizations (accessed February 15, 2022).

Regional Fishery Management Councils

Atlantic Ocean Regional Fisheries Management Organizations:

- International Commission for the Conservation of Atlantic Tunas
- North Atlantic Salmon Conservation Organization
- Northwest Atlantic Fisheries Organization
- Western Central Atlantic Fisheries Commission

Pacific Ocean Regional Fisheries Management Organizations:

- Agreement on the International Dolphin Conservation Program
- Inter-American Tropical Tuna Commission
- North Pacific Anadromous Fish Commission
- Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea
- Pacific Salmon Commission
- Western and Central Pacific Fisheries Commission
- International Pacific Halibut Commission

An issue of particular concern for NOAA Fisheries is illegal, unreported, and unregulated (IUU) fishing activities. IUU fishing generally refers to fishing that violates national laws or internationally agreed conservation and management measures in effect in oceans around the world. IUU fishing can include fishing without a license or quota for certain species, unauthorized trans-shipments to cargo vessels, failing to report catches or making false reports, keeping undersized fish or fish that are otherwise protected by regulations, fishing in closed areas or during closed seasons, and using prohibited fishing gear.

NOAA Fisheries is actively collaborating with other federal agencies as part of the National Ocean Council Committee on IUU Fishing and Seafood Fraud. This network of agencies works together to implement measures outlined in an action plan developed by the Presidential Task Force on Combating IUU Fishing and Seafood Fraud. As part of this effort, in December 2016 NOAA Fisheries issued the final rule establishing the Seafood Import Monitoring Program to further combat IUU fishing practices and to identify misrepresented seafood imports before they enter the U.S. market. The data collected under this program allows certain priority species, identified as especially vulnerable to IUU fishing and seafood fraud, to be traced from the point of entry into U.S. commerce back to the point of harvest or production to verify whether it was lawfully harvested or produced. For 11 of the 13 species/species groups covered in the final rule, the rule went into effect January 1, 2018. Shrimp and abalone compliance became effective on December 31, 2018.[4] By not allowing IUU fish products into the U.S., the Seafood Import Monitoring Program helps level the playing field for commercial fishermen by reducing unfair competition in the marketplace.

Threatened and Endangered Species

NOAA Fisheries is also the lead agency for the conservation and protection of marine and anadromous species that fall within the purview of the Endangered Species Act (ESA). Currently, there are 165 threatened and endangered marine species under the ESA (see Table 1).

Table 1. Endangered and Threatened Species under NOAA Fisheries Jurisdiction[5]

Species Group	Number of Species/ Sub-species Populations
Whales	16
Dolphins and Porpoises	8
Seals and Sea Lions	12
Sea Turtles	25
Fish and Sharks	75
Corals and Marine Invertebrates	28
Plants	1
Total Threatened and Endangered Marine Species	165

A recent Report to Congress covering the period October 1, 2018–September 30, 2020, indicates that NOAA Fisheries managed 99 domestic (includes some transnational) and 66 foreign marine and anadromous species—including salmon, sturgeon, sawfish, sharks, rays, seagrass, mollusks, sea turtles, corals, and marine mammals. The report addresses the 99 transnational and domestic species for which a recovery plan has or will be developed.[6]

[4] See https://www.iuufishing.noaa.gov/recommendationsandactions/recommendation1415/finalruletraceability.aspx (accessed February 22, 2022).
[5] NOAA Fisheries Office of Protected Resources Endangered Species Conservation website (https://www.fisheries.noaa.gov/topic/endangered-species-conservation#conservation-&-management) (accessed September 22, 2021).
[6] "Recovering Threatened and Endangered Species – Report to Congress" available at: https://www.fisheries.noaa.gov/resource/document/recovering-threatened-and-endangered-species-report-congress-fy-2019-2020.

The status of these 99 species for this period was:

- 25 (25.3%) were stabilized or increasing.
- 11 (11.1%) were declining.
- 17 (17.2%) were mixed, with their status varying by population location.
- 46 (46.5%) were unknown, because we lacked sufficient trend data to make a determination.

NOAA Fisheries is also responsible for protecting marine mammals under the Marine Mammal Protection Act.[7] In authorizing this act in 1972, Congress recognized that marine mammal species or stocks may be in danger of extinction or depletion as a result of human activities; marine mammal species or stocks should not be allowed to fall below their optimum sustainable population levels; measures should be taken to replenish marine mammal species or stocks; there is inadequate knowledge of the marine mammal ecology and population dynamics; and marine mammals have proven to be resources of great international significance. NOAA Fisheries engages in activities such as preventing the harassment, capture, or killing of marine mammals; preparing marine mammal stock assessments; and studying interactions between marine mammals and fisheries.

Essential Fish Habitats

Sustainable commercial and recreational fisheries depend on healthy habitats. These habitats include rivers, estuaries, coastal waters, and the open ocean where marine and anadromous species feed, grow, and reproduce. Consideration of these habitat areas is part of an ecosystem-based management approach for managing fisheries in a more sustainable and holistic manner. Since 1996, federal fishery management plans are required to identify and describe essential fish habitat (EFH) for all federally managed species. Habitat areas that are necessary for a fish species' growth, reproduction, and development are considered EFH. To the extent practicable, NOAA Fisheries and the FMCs must minimize adverse effects to EFH caused by fishing.

Though not required, Habitat Areas of Particular Concern (HAPC) can be identified to help focus EFH conservation efforts. The HAPC designation alone does not confer additional protection to or place restrictions on an area, but helps to focus EFH conservation, management, and research priorities. HAPC designation is a valuable way to acknowledge areas based on their ecological importance, rarity, and/or vulnerability, indicating a greater need for conservation and management. To date, approximately 299 HAPCs have been designated, including a combination of habitat types, discrete areas, and waterways. Some of these areas do overlap.

In order to help prioritize efforts related to EFH, NOAA Fisheries held an EFH Summit in 2016 and then published an updated Marine Fisheries Habitat Assessment Improvement Plan in 2018.[8] Both efforts focused on identifying habitats that are most essential for sustaining federally managed species and on supporting research to understand how these habitats directly contribute to fisheries productivity. A continued priority is refining EFH and HAPC designations for habitat-limited species and habitats that play a key role in offshore stock productivity.

Catch Share Programs

Market-based management tools are used by fishery managers to reduce overcapitalization, increase the economic viability of fisheries, and promote individual accountability for harvest and harvesting practices. Catch share programs are one of these tools and encompass a range of management strategies that share a common feature: A secure share of fish is dedicated to individual fishermen, cooperatives, fishing communities, and other entities for their exclusive use. In 2010, the NOAA catch share policy was released to encourage well-designed catch share programs to help maintain or rebuild fisheries.[9] The policy also aims to sustain fishermen, communities, and vibrant working waterfronts, including the cultural and resource-access traditions that have been part of this country since its founding.

Currently, there are 17 federal catch share programs nationwide. These programs include limited access privilege programs (LAPPs), individual fishing quota programs (IFQs), individual transferable quota programs (ITQs), fishing community development quota programs (CDQs), fishing cooperatives, and fishing sectors.[10] Implementation dates of these programs span three decades, with six programs established in the 1990s and

[7] The U.S. Fish and Wildlife Service protects walrus, manatees, otters, and polar bears.
[8] The Habitat Assessment Improvement Plan Update is available at https://spo.nmfs.noaa.gov/sites/default/files/TMSPO181_0.pdfhttps://www.fisheries.noaa.gov/resource/document/habitat-assessment-improvement-plan-2010.
[9] See https://www.fisheries.noaa.gov/national/laws-and-policies/catch-shares.
[10] See Section 303A of the Magnuson-Stevens Act for more information on LAPP requirements.

six established since 2010 (see Table 2). Eleven programs manage a single species or, in some cases, two species but as separate management units; the other six programs manage multiple species. Seven of the programs operate in the North Pacific (Alaska) Region.

Table 2. Existing Catch Share Programs in Federal Fisheries[11,12]

Region	Program	Year Implemented
North Pacific	Western Alaska Community Development Quota (CDQ) Program	1992
	Alaska Halibut and Sablefish IFQ Program	1995
	American Fisheries Act (AFA) Pollock Cooperatives	1998
	Bering Sea and Aleutian Islands (BSAI) King and Tanner Crab Rationalization	2005
	Aleutian Islands Pollock Fishery	2005
	Bering Sea and Aleutian Islands (BSAI) Non-Pollock Trawl Catcher/Processor Groundfish Cooperatives (Amendment 80)	2008
	Central Gulf of Alaska (GOA) Rockfish Program (pilot implemented in 2007)	2011
Pacific	Pacific Coast Sablefish Permit Stacking Program	2001
	Pacific Groundfish Trawl Rationalization Program (whiting and non-whiting trawl)	2011
Northeast	Northeast Multispecies Sectors: Georges Bank Cod - Hook Gear (2004) and Georges Bank Cod - Fixed Gear (2007)	2010
	Northeast General Category Sea Scallop IFQ Program	2010
Mid-Atlantic	Mid-Atlantic Surfclam and Ocean Quahog IFQ Program	1990
	Mid-Atlantic Golden Tilefish IFQ Program	2009
Atlantic Highly Migratory Species	Atlantic Bluefin Tuna Individual Bluefin Quota Program	2015
South Atlantic	South Atlantic Wreckfish ITQ Program	1992
Gulf of Mexico	Red Snapper IFQ Program	2007
	Grouper and Tilefish IFQ Program	2010

In 2010, NOAA Fisheries initiated an effort to track catch share program performance.[13] Findings from the initial report show that existing catch share programs have ended the race to fish (in their respective fisheries), resulting in longer fishing seasons, safer working conditions, and improved management performance. The report also shows that existing catch share programs have resulted in reduced fishing capacity to better match stock size—a management objective in the majority of catch share programs evaluated. Economic performance for the vessels remaining in the program improved, as measured by such metrics as revenue per vessel and average price.

Updated information on selected performance indicators is provided in Table 3. Briefly, results show that inflation-adjusted 2018 revenue from catch share species increased in 6 of the 16 programs and/or sub-components of the programs relative to their respective baseline periods (note that two programs did not have baseline revenues). In addition, the number of active vessels decreased in all but one program (Central Gulf of Alaska Rockfish program), while inflation-adjusted revenue per active vessel increased in all programs since their implementation. Further, results show that no program exceeded the annual catch limit (ACL) in 2018.

[11] From 1996 to 2002, there was a congressional moratorium on the establishment of new IFQ programs. There are no catch share programs in the Caribbean.
[12] In 2007, Congress reauthorized the Magnuson-Stevens Act, Section 303A with provisions for limited access privilege programs.
[13] See https://www.fisheries.noaa.gov/national/laws-and-policies/catch-shares.

Table 3. Economic Performance Indicators for U.S. Federal Catch Share Programs 2018 dollars)[14]

Region	Program	ACL Exceeded		Number of Active Vessels		Total Revenue from Catch Share Species		Revenue per Active Vessel	
		Base-line	2018	Base-line	2018	Baseline	2018	Baseline	2018
North Pacific	Alaska Halibut IFQ	Y	N	3,432	810	99,441,120	76,094,233	28,975	93,944
	Alaska Sablefish IFQ Total	Y	N	1,139	295	99,861,274	75,598,853	87,675	256,267
	Alaska American Fisheries Act Pollock Cooperative Total	Y	N	147	97	268,918,277	369,485,342	1,829,376	3,809,127
	BSAI Crab Rationalization	Y	N	264	66	189,480,402	165,844,630	717,729	2,512,797
	BSAI Non-Pollock Trawl Catcher/ Processor Groundfish Cooperatives (Amendment 80)	N	N	22	20	98,398,607	123,455,901	4,472,664	6,172,795
	Central Gulf of Alaska Rockfish Total	Y	N	42	47	7,124,178	10,259,676	169,623	218,291
Pacific	West Coast Sablefish Permit Stacking Program	NA	N	135	83	7,259,424	8,476,967	53,774	102,132
	West Coast Trawl Rationalization Whiting and Non-whiting Directed	NA	N	124	96	43,495,757	54,262,843	350,772	565,238
New England	Northeast Multispecies Sectors	Y	N	417	169	93,737,137	49,011,885	224,789	290,011
	Atlantic Sea Scallop General Category IFQ	NA	NA	271	134	30,853,462	30,651,493	113,850	228,742
Mid-Atlantic	Mid-Atlantic Ocean Quahog ITQ	N	N	67	16	31,891,805	29,352,534	475,997	1,834,533
	Mid-Atlantic Surfclam ITQ	N	N	137	39	42,973,537	28,256,333	313,675	724,521
	Mid-Atlantic Golden Tilefish IFQ	NA	N	14	8	5,120,526	4,709,632	365,752	588,704
Atlantic Highly Migratory Species	Atlantic Highly Migratory Species Individual Bluefin Tuna Quota	NA	NA	116	76	1,058,904	888,378	9,128	11,689
Gulf of Mexico	Gulf of Mexico Red Snapper IFQ	Y	N	482	450	15,175,473	29,929,938	31,484	66,511
	Gulf of Mexico Grouper-Tilefish IFQ	Y	N	630	455	24,768,272	20,365,972	39,315	44,760

[14] The South Atlantic Wreckfish ITQ program and Aleutian Island Pollock Fishery are not included due to confidentiality restrictions. The Western Alaska CDQ program was excluded because CDQs are fundamentally different from the other programs. In addition, note that some programs did not have a catch quota prior to the catch share program. For these programs, "-" indicates that the question of whether the ACL was exceeded is not applicable. All values have been adjusted by the GDP deflator for 2018. BSAI Crab data for 2018/2019.

Other Market-Based Management Tools

Vessel or permit buyback programs are another market-based tool used by fishery managers. Under these programs, the government purchases fishing vessels or permits. Doing so permanently decreases the number of participants in the fishery and eases fishing-related pressure on marine resources. Recent buyback programs include BSAI Crab, Pacific Coast Groundfish, Longline Catcher Processor Non-Pollock Groundfish, Southeast Alaska Purse Seine Salmon, and American Fisheries Act Pollock.

Limited Access Privilege Programs, also known as limited entry programs, are another management tool available to fishery managers. In these programs, the number of fishing vessels allowed to harvest a specific fish stock or stock complex is limited to fishermen or vessels with permission to fish. LAPPs have been implemented in almost all federally managed commercial fisheries and in every region except the Caribbean.

Ecolabels are market-based tools offered by third-party entities. An ecolabeling program entitles a fishery product to bear a distinctive logo or statement that certifies the fishery resource was harvested in compliance with specified conservation and sustainability standards. It allows the buyer to potentially influence the sustainable harvest of fishery resources through the purchase of such ecolabeled seafood products at a price premium. The Marine Stewardship Council (MSC) has one of the most recognizable ecolabeling programs in the world. Currently, nearly 300 fisheries worldwide meet MSC sustainability standards, 22 of which are U.S. fisheries (see Table 4). Fisheries obtaining MSC certification for the first time in 2019 include the Omega Protein Corporation U.S. Atlantic menhaden purse seine fishery, the Prestige Oysters Texas and Louisiana private oyster fishery, the U.S. Gulf of Mexico menhaden purse seine fishery, and the Aleutian Islands and Bering Sea Atka mackerel, Pacific Ocean perch, and northern rockfish and Gulf of Alaska Pacific Ocean perch, northern rockfish, and dusky rockfish.

Table 4. U.S. Fisheries with MSC Certification[15]

Region	Fishery	Certified
North Pacific	Alaska salmon	2000
	Alaska pollock – Bering Sea and Aleutian Islands and the Gulf of Alaska	2005
	Alaska North Pacific halibut and sablefish	2006
	Alaska flatfish – Bering Sea and Aleutian Islands and the Gulf of Alaska	2010
	Alaska Pacific cod – Bering Sea and Aleutian Islands and the Gulf of Alaska	2010
	Annette Islands Reserve salmon	2011
	Aleutian Islands and Bering Sea Atka mackerel, Pacific Ocean perch, and northern rockfish and Gulf of Alaska Pacific Ocean perch, northern rockfish, and dusky rockfish	2019
Pacific	Oregon and Washington pink shrimp	2007
	Pacific hake mid-water trawl	2010
	US West Coast limited entry groundfish trawl	2014
	American Albacore Fishing Association and the Western Fishboat Owners Association North Pacific albacore tuna	2018
North-east	Atlantic spiny dogfish, winter skate and little skate	2012
	Atlantic sea scallop	2013
	North Atlantic swordfish, yellowfin, and albacore tuna	2013
	Acadian redfish, pollock and haddock otter trawl	2016
	Atlantic surfclam and ocean quahog	2016
	Gulf of Maine lobster fishery	2016
	Gulf of Maine and Georges Bank haddock, pollock, and redfish trawl	2018
	Northeast squid bottom trawl fishery	2018
	Omega Protein Corporation U.S. Atlantic menhaden purse seine	2019
South-east	Prestige Oysters Texas and Louisiana private oyster fishery	2019
	U.S. Gulf of Mexico menhaden purse seine	2019

COMMERCIAL FISHERIES — UNITED STATES

In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

[15] Marine Stewardship Council Certifications as of February 17, 2021. For more information about these fisheries and the Marine Stewardship Council certification process, see https://www.msc.org/.

Key U.S. Commercial Species

- Alaska pollock
- American lobster
- Blue crab
- Menhaden
- Pacific halibut
- Pacific salmon
- Sablefish
- Sea scallop
- Shrimp
- Tunas

Regional Highlights

At the national level, this report includes landings revenue, landings, and prices for 10 key species or species groups, which represent the top specie(s) from each region. Results show that commercial fishermen in Alaska caught the most salmon (827.1 million pounds) and earned $673.4 million for their catch in 2019. Hawai'i fishermen caught the most tuna (23.3 million pounds) and earned the highest landing revenue for this catch ($85.5 million). Maine fishermen contributed the most to American lobster landings (101.9 million pounds) and earned $491.6 million for their catch in 2019. In Massachusetts, sea scallopers harvested 41.9 million pounds of scallop and earned $397.2 million for their catch. More blue crabs were caught in Louisiana (37.4 million pounds) than in any other state, earning more than $52.2 million. Louisiana accounted for the greatest quantity of menhaden landed in 2019, with fishermen landing 741.2 million pounds worth $60.3 million in dockside revenue. Sea scallop garnered the highest average ex-vessel price per pound ($9.39) among the key species and species groups in 2019, with state-specific prices ranging from $8.98 in Virginia to $10.77 in New Hampshire.

Economic Impacts

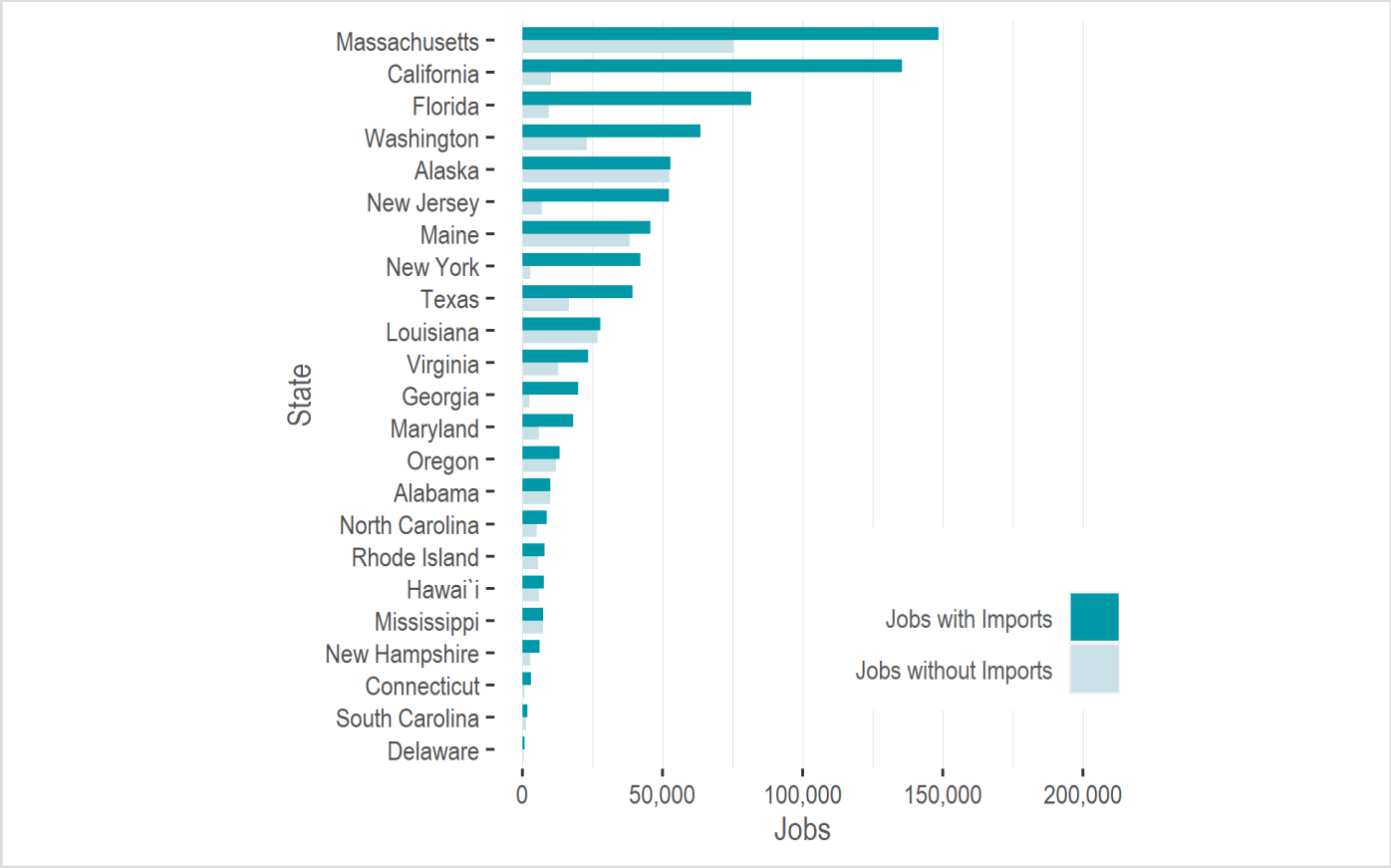
The premise behind economic impact modeling is that every dollar spent in a regional economy (direct impact) is either saved or re-spent on additional goods or services. If those dollars are re-spent on other goods and services in the regional economy, this spending generates additional economic activity in the region.[16]

Four different measures are commonly used to show how commercial fisheries landings affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as commercial fishing. The category includes both the direct sales of fish landed and sales made between businesses and households resulting from the original sale. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the sales of seafood or purchases of inputs to commercial fishing. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. The United States seafood industry is defined here as the commercial fishing sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers.[17]

This report provides estimates of total economic impacts for the nation and for each of the 23 coastal states. Total economic impacts for each state and the nation represent the sum of direct impacts; indirect impacts (in this case, the impact from suppliers to the seafood industry); and induced impacts (spending by employees on personal and household expenditures, where employees of both the seafood industry and its full supply chain are included). That is, the total economic impact estimates reported here measure jobs, sales, value-added, and income impacts from the seafood industry as well as the economic activity generated throughout each region's broader economy from this industry.

In 2019, the seafood industry supported 1.2 million full- and part-time jobs and generated $165.5 million in sales, $43.4 million in income, and $67.6 million in value-added impacts nationwide (Table 5). The importers sector generated the largest sales impacts ($82.6 million jobs) and value added impacts ($25.2 million).The retail sector generated the largest jobs impacts (637,389) and income impacts ($15.9 million).

[16] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]
[17] The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates. [Available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf.]



Graph 1. Jobs supported by the U.S. Seafood Industry (Jobs with and without Imports), 2019

Table 5. U.S. Seafood Industry Economic Impacts Trends (jobs, millions of dollars)

	2013	2014	2015	2016	2017	2018	2019
Jobs	1,270,141	1,350,627	1,394,833	1,179,848	1,190,092	1,246,366	1,233,915
Sales	$140,661	$142,249	$153,341	$144,194	$144,293	$170,314	$165,482
Income	$38,722	$39,747	$41,956	$39,744	$39,905	$44,595	$43,376
Value Added	$59,017	$60,309	$64,071	$60,566	$60,768	$69,177	$67,613
Total Revenue	$5,099	$5,547	$5,473	$5,184	$5,337	$5,409	$5,598

Table 6. Sales, Income and Value-Added Impacts Generated by the U.S. Seafood Industry, 2019 (thousands of dollars)

State	Sales	Income	Value Added
U.S. Total	$165,482,382	$43,376,464	$67,612,967
California	$26,881,300	$5,702,759	$9,514,880
Florida	$19,373,993	$3,619,588	$6,476,479
Massachusetts	$16,334,748	$4,044,374	$6,273,163
New Jersey	$10,808,641	$2,238,502	$3,761,959
Washington	$9,242,566	$2,460,734	$3,752,627
New York	$6,492,898	$1,346,110	$2,257,380
Texas	$5,415,475	$1,322,455	$2,091,356
Alaska	$4,321,384	$1,930,355	$2,391,356
Maine	$3,641,818	$1,076,489	$1,606,570
Georgia	$3,278,306	$725,453	$1,194,897
Virginia	$3,230,751	$803,235	$1,250,426
Maryland	$2,778,243	$645,919	$1,027,469
Louisiana	$1,708,923	$628,327	$855,392
Oregon	$1,060,827	$371,817	$521,509
North Carolina	$947,383	$255,891	$387,119
Rhode Island	$886,930	$239,748	$365,973
New Hampshire	$837,995	$204,694	$321,307
Hawai'i	$785,982	$229,494	$340,904
Connecticut	$589,593	$123,125	$205,702
Alabama	$495,606	$194,938	$255,812
Mississippi	$399,975	$157,334	$203,736
South Carolina	$168,148	$51,035	$74,261
Delaware	$156,991	$29,749	$51,198

Landings Revenue

Landings revenue in the United States totaled $5.6 billion in 2019 (Table 7). This represented a 20% increase in nominal value from 2010 levels (a 3% increase in real terms after adjusting for inflation) and, year-over-year, a 1% decrease from 2018 (Graph 2). Finfish landings revenue accounted for 35% of all landings revenue. Pacific salmon had the highest landings revenue in 2019.

Table 7. Commercial Fisheries Landings Revenue by Region, 2019 (thousands of dollars)

Region	Revenue
U.S. Total	$5,598,014
North Pacific	$1,754,111
New England	$1,503,532
Gulf of Mexico	$816,050
Pacific	$715,261
Mid-Atlantic	$497,961
South Atlantic	$201,349
Western Pacific (Hawai'i)	$109,751

From 2010 to 2019, American lobster (58%, 35% in real terms), menhaden (39%, 19% in real terms), and Alaska pollock (38%, 19% in real terms) had the largest increases, while Pacific halibut (-52%, -59% in real terms) and sablefish (-33%, -43% in real terms) had the largest decreases. From 2018 to 2019, Pacific salmon (18%), Pacific halibut (13%), and sea scallop (7%) had the largest increases, while sablefish (-20%), Alaska pollock (-14%), and menhaden (-7%) had the largest decreases.

Commercial Revenue: Largest Increases

From 2010:
- American lobster (58%, 35% in real terms)
- Menhaden (39%, 19% in real terms)
- Alaska pollock (38%, 19% in real terms)

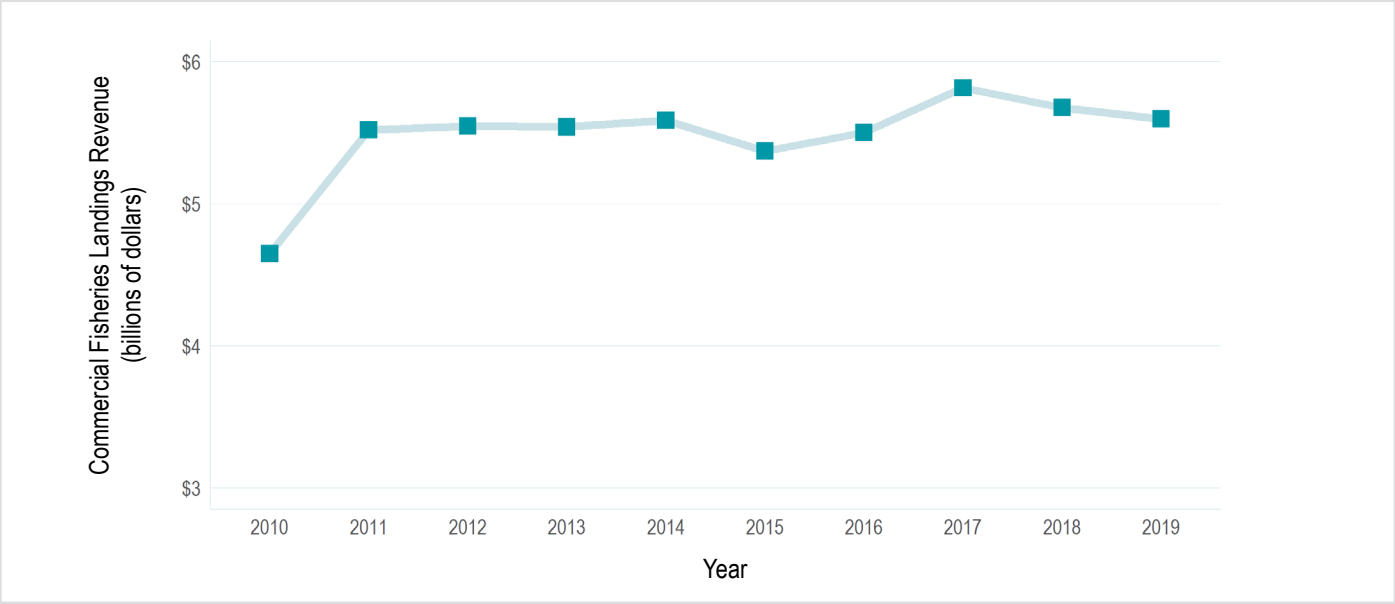
From 2018:
- Pacific salmon (18%)
- Pacific halibut (13%)
- Sea scallop (7%)

Commercial Revenue: Largest Decreases

From 2010:
- Pacific halibut (-52%, -59% in real terms)
- Sablefish (-33%, -43% in real terms)

From 2018:
- Sablefish (-20%)
- Alaska pollock (-14%)
- Menhaden (-7%)

Alaska earned the greatest share of landings revenue in 2019 ($1.8 billion), contributing 31% of the national total (Table 7). Maine ($642.3 million, or 18% of U.S. shellfish revenue) and Massachusetts ($604.7 million, or 17% of U.S. shellfish revenue) earned the most ex-vessel revenue from shellfish landings.



Graph 2. U.S. Commercial Fisheries Landings Revenue, 2010-2019 (nominal values, billions of dollars)

Landings

Landings volume in the United States totaled $9.4 billion in 2019 (Table 8). This represented a 13% increase from 2010 levels and, year-over-year, a 1% decrease from 2018 (Graph 3). Finfish landings revenue accounted for 52% of all landed weight. Alaska pollock had the highest landings volume in 2019.

From 2010 to 2019, Alaska pollock (72%), shrimp (12%), and American lobster (8%) had the largest increases, while Pacific halibut (-56%), blue crab (-25%), and sablefish (-4%) had the largest decreases. From 2018 to 2019, Pacific salmon (45%), Pacific halibut (14%), and blue crab (7%) had the largest increases, while American lobster (-14%), shrimp (-11%), and tunas (-5%) had the largest decreases.

Commercial Landings: Largest Increases

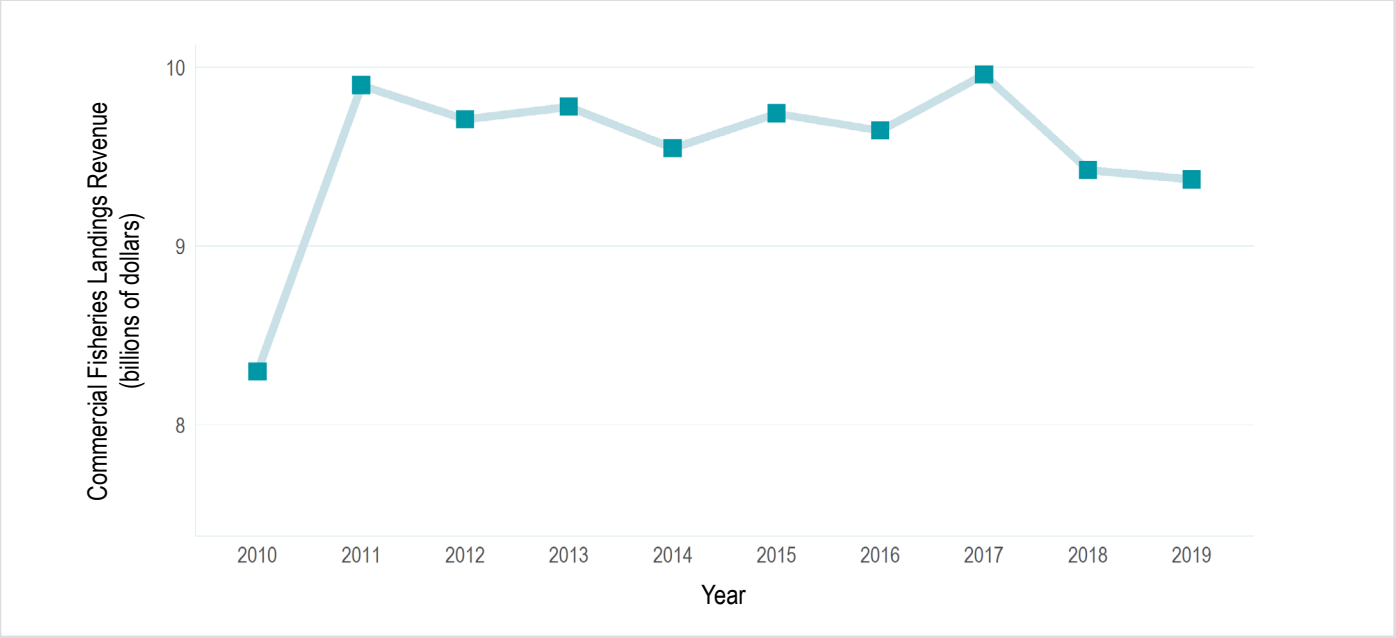
From 2010:
- Alaska pollock (72%)
- Shrimp (12%)
- American lobster (8%)

From 2018:
- Pacific salmon (45%)
- Pacific halibut (14%)
- Blue crab (7%)

Commercial Landings: Largest Decreases

From 2010:
- Pacific halibut (-56%)
- Blue crab (-25%)
- Sablefish (-4%)

From 2018:
- American lobster (-14%)
- Shrimp (-11%)
- Tunas (-5%)



Graph 3. U.S. Commercial Fisheries Landings, 2010-2019 (billions of pounds)

Alaska had the greatest share of landings in 2019 (5.6 billion pounds), contributing 60% of the national total (Table 8). Alaska (3.4 billion pounds, or 76% of U.S. shellfish landings) and Maine (154.5 million pounds, or 3% of U.S. shellfish landings) had the greatest shellfish landings.

Table 8. Commercial Fisheries Landings by Region, 2019 (thousands of pounds)

Region	Landings Volume
U.S. Total	$5,598,014
North Pacific	$1,754,111
New England	$1,503,532
Gulf of Mexico	$816,050
Pacific	$715,261
Mid-Atlantic	$497,961
South Atlantic	$201,349
Western Pacific (Hawai'i)	$109,751

Prices

Of all key species or species groups, sea scallop ($9.39 per pound) had the highest national ex-vessel price. Menhaden ($0.10 per pound) had the lowest ex-vessel price of all key species nationally.

From 2010 to 2019, American lobster (46%, 25% in real terms), blue crab (36%, 17% in real terms), and menhaden (35%, 16% in real terms) had the largest increases, while sablefish (-31%, -41% in real terms) and Alaska pollock (-20%, -31% in real terms) had the largest decreases. From 2018 to 2019, American lobster (17%), shrimp (7%), and sea scallop (2%) had the largest increases, while sablefish (-23%), Pacific salmon (-19%), and Alaska pollock (-14%) had the largest decreases.

RECREATIONAL FISHERIES — UNITED STATES

In this report, recreational fishing refers to fishing for leisure rather than to sell fish (commercial fishing) or for subsistence. The key species/species groups included in this report were chosen because they are caught in large numbers, highly prized by recreational anglers, associated with federal fishery management plans; or a combination of one or more of these factors. The recreational fisheries section reports on angler participation, trips, economic impacts and expenditures, and catch of key species/species groups.[18,19]

[18] Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.
[19] See data sources section for more information about where each region or state's data comes from.

Key U.S. Recreational Species[20]

- Atlantic croaker and spot (Atlantic regions)
- Dolphinfish (Western Pacific and Atlantic)
- Pacific halibut (North Pacific)
- Pacific salmon (Pacific and North Pacific)[21]
- Rockfishes and scorpionfishes (Pacific and North Pacific)[22]
- Seatrout (Atlantic regions)[23]
- Striped bass (Atlantic regions)
- Summer flounder (Atlantic regions)
- Tunas (Atlantic regions)[24]
- Tunas (Pacific and Western Pacific regions)[25]

The economic contributions for both trip and durable expenditures from recreational fishing in 2019 were estimated using IMPLAN version 3, with base year data from 2017. Models for each state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2019 trips) and for durable expenditures (based on 2019 survey data on average durable expenditures and 2018 participants).

Regional Highlights

At the national level, the report includes fishing trips, participation, and the harvest and release numbers of 10 key species or species groups, which were selected so that each region has at least one species in the top 10. Results show that in 2019, recreational anglers in East Florida took the most trips (35.9 million trips) and West Florida spent the most on trips ($1.8 billion). North Carolina spent the second most on trips ($1.2 billion).

Virginia caught the most Atlantic croaker and spot (21.9 million fish), West Florida caught the most seatrouts (25.7 million fish), Maryland caught the most striped bass (7.8 million fish), and New Jersey caught the most summer flounder (14.2 million fish). Alaska caught the most Pacific halibut (537,164 fish) and Pacific salmon (932,020 fish).

Economic Impacts and Expenditures

The economic contributions or impacts of recreational fishing activities in the United States is based on spending by recreational anglers.[26] Total annual trip expenditures were estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusting by the CPI (consumer price index) to the current year. Total annual durable expenditures were estimated by multiplying mean durable expenditures by the estimated annual number of adult participants in the United States and adjusting by the CPI (consumer price index) to the current year.[27] After 2018, state level durable expenditures and durable impacts will no longer be available due to changes in the availability of angler participation data at the state level. State level trip expenditures and impacts will continue to be provided.

Four different measures are commonly used to show how angler expenditures affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as recreational fishing. It includes both the direct sales made by the angler and sales made between businesses and households resulting from that original sale by the angler. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. NOAA Fisheries uses a regional impact modeling software, called IMPLAN, to estimate these four types of impacts.

[20] Atlantic Regions refer to those states within New England, Mid-Atlantic, South Atlantic, and the Gulf of Mexico.
[21] Chinook salmon, chum salmon, coho salmon, cutthroat trout, and pink salmon.
[22] Bank rockfish, black and yellow rockfish, black rockfish, blue rockfish, bocaccio, bronzespotted rockfish, brown rockfish, calico rockfish, California scorpionfish, canary rockfish, chilipepper, china rockfish, copper rockfish, cowcod, darkblotched rockfish, deacon rockfish, deacon/blue rockfish unknown, flag rockfish, freckled rockfish, gopher rockfish, grass rockfish, greenblotched rockfish, greenspotted rockfish, greenstriped rockfish, halfbanded rockfish, honeycomb rockfish, kelp rockfish, mexican rockfish, olive rockfish, Pacific ocean perch, pinkrose rockfish, quillback rockfish, redbanded rockfish, redstripe rockfish, rockfish genus, rockfish species, rosethorn rockfish, rosy rockfish, scorpionfish family, shortspine thornyhead, silvergray rockfish, speckled rockfish, squarespot rockfish, starry rockfish, stripetail rockfish, swordspine rockfish, tiger rockfish, treefish, vermilion rockfish, widow rockfish, yelloweye rockfish, yellowmouth rockfish, and yellowtail rockfish.
[23] Sand seatrout, seatrout genus, silver seatrout, spotted seatrout, and weakfish.
[24] Albacore, bigeye tuna, blackfin tuna, blue shark, bluefin tuna, swordfish, tuna genus, and yellowfin tuna.
[25] Albacore, bigeye tuna, billfish family, blue shark, bluefin tuna, swordfish, and yellowfin tuna.
[26] Trip expenditure estimates were generated from the 2016/2017 National Marine Recreational Fishing Expenditure Survey (Lovell et al., 2020). Durable goods expenditures were generated from the 2019 National Marine Recreational Fishing Expenditure Survey. [For citations: Publications-Recreational Fisheries Economics Research.]
[27] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]

Economic impacts from recreational fishing activities supported 553,499 jobs across the United States in 2019 (Table 9). Recreational fishing also generated about $89.3 billion in sales impacts, $30.0 billion in income impacts, and $50.1 billion in value-added impacts.

Impacts from durable equipment expenditures (e.g., rods and reels, fishing-related equipment, boats, vehicles, and second homes) accounted for 72% of total job impacts, 74% of sales impacts, 75% of income impacts, and 73% of value added impacts. Of the three fishing trip modes, shore-boat-based fishing trips had the greatest economic impact, accounting for 14% of employment, 12% of sales, 8% of income impacts, and 18% of value-added impacts.

Table 9. Recreational Economic Impacts Trends for the United States (millions of dollars)[28]

	2017	2018	2019
#Jobs	487,024	469,848	553,499
Sales	$73,752	$72,462	$89,340
Income	$24,684	$24,268	$30,004
Value Added	$41,474	$40,733	$50,122

The greatest employment impacts (Graph 4) and sales impacts (Table 10) from saltwater recreational fishing were both generated in West Florida, followed by North Carolina and East Florida.

Graph 4. Jobs supported by the U.S. Recreational Fishing Industry, 2019

Table 10. Sales, Income, and Value-Added Impacts Generated by the Recreational Fishing Industry, 2019 ($ millions)

State	Jobs	Sales	Income	Value Added
U.S Total	553,499	$89,340	$30,004	$50,122
West Florida	23,301	$2,497	$849	$1,577
North Carolina	16,421	$1,667	$584	$1,009
East Florida	13,097	$1,345	$457	$899
South Carolina	9,109	$824	$273	$520
California	8,413	$1,154	$295	$507
Alabama	8,198	$794	$233	$466
Louisiana	5,333	$591	$187	$339
New York	4,706	$404	$178	$309
Texas	3,996	$508	$164	$307
Alaska	3,910	$456	$152	$264
New Jersey	3,890	$599	$244	$388
Virginia	3,111	$343	$125	$223
Maryland	2,975	$286	$106	$183
Hawai'i	2,911	$400	$124	$222
Massachusetts	2,602	$313	$151	$217
Georgia	2,417	$207	$68	$130
Washington	1,783	$245	$81	$147
Mississippi	1,399	$121	$40	$74
Delaware	912	$107	$36	$70
Connecticut	895	$108	$46	$83
Rhode Island	891	$95	$47	$68
Maine	730	$79	$28	$47
Oregon	715	$72	$27	$44
New Hampshire	258	$26	$11	$17

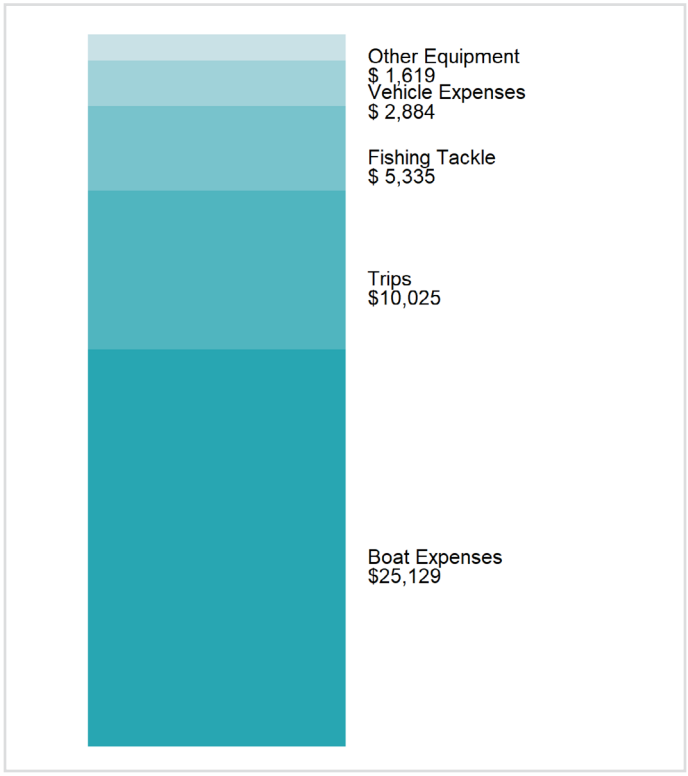
[28] Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.
[29] Alaska effort is measured in 'Days Fished,' not in 'Angler Trips.' Numbers before 2011 use estimates of the portion of days fished devoted to shellfish, which were excluded.

In 2019, expenditures for fishing trips and durable goods equipment in the United States totaled $45 billion.

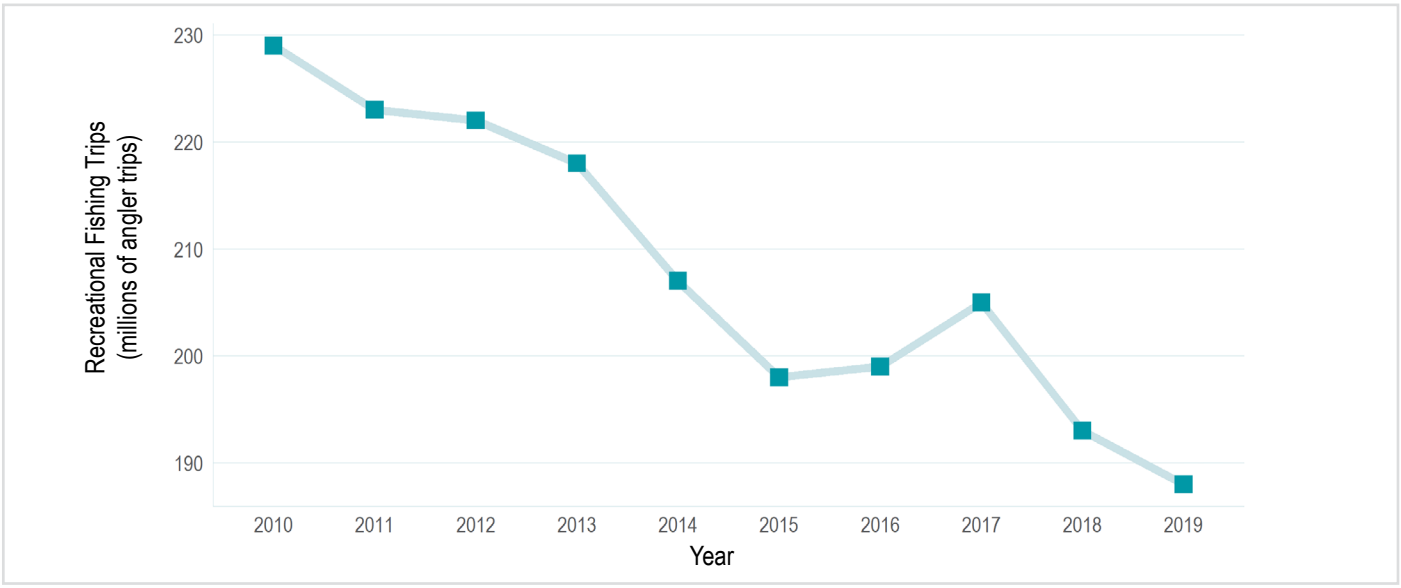
Approximately $10 billion of these expenditures were related to trip expenses. Total trip expenditures were composed of expenses on trips in the shore (46.9%), private boat (38.6%), and for-hire (14.6%) sectors. Durable goods expenditures totaled $35 billion in 2019, with the largest portion coming from Boat Expenses ($25 billion) (Graph 5).

Fishing Trips

Nationwide, anglers took approximately 188.1 million saltwater fishing trips around the country (Table 11). This number represented an 18% decrease from 2010 and a 3% decrease from 2018 (Graph 6). Approximately 62% of fishing trips were taken via shore. East Florida anglers took the most fishing trips (35.9 million trips), followed by those in West Florida and North Carolina (Table 12).



Graph 5. Recreational Fishing Trip and Durable Goods Expenditures, 2019 ($ billions)



Graph 6. Recreational Fishing Trips, 2010-2019 (millions of angler trips)

Table 11. Recreational Fishing Trips by Region, 2019 (thousands of fishing trips)

Region	Trips
U.S. Total	188,061
South Atlantic	69,329
Gulf of Mexico	49,970
Mid-Atlantic	42,974
New England	17,211
Pacific	4,268
Western Pacific (Hawai'i)	3,479
North Pacific[29]	830

Table 12. Recreational Fishing Trips by State, 2019 (thousands of trips)

State	Trips
East Florida	35,930
West Florida	35,645
North Carolina	17,540
New York	13,412
New Jersey	13,380
South Carolina	11,839
Massachusetts	7,422
Virginia	7,238
Maryland	6,836
Alabama	6,677
Mississippi	4,227
Georgia	4,021
Connecticut	3,766
Rhode Island	3,739
Hawai'i	3,479
California	3,367
Delaware	2,108
Louisiana	2,108
Maine	1,675
Texas	1,313
Washington	663
New Hampshire	609
Oregon	238

Harvest and Release Trends

In 2019, Atlantic croaker and spot (Atlantic regions) (64 million fish), seatrout (Atlantic regions) (59.2 million fish), and striped bass (Atlantic regions) (31.8 million fish), were most frequently caught by recreational fishermen in the United States. The text box below shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2010 to 2019, rockfishes and scorpionfishes (Pacific and North Pacific) (80%), tunas (Pacific and Western Pacific regions) (48%), and dolphinfish (Western Pacific and Atlantic) (42%) had the largest increases, while summer flounder (Atlantic regions) (-48%), seatrout (Atlantic regions) (-42%), and Atlantic croaker and spot (Atlantic regions) (-28%) had the largest decreases. From 2018 to 2019, Pacific salmon (Pacific and North Pacific) (34%), summer flounder (Atlantic regions) (31%), and tunas (Pacific and Western Pacific regions) (14%) had the largest increases, while tunas (Atlantic regions) (-47%), dolphinfish (Western Pacific and Atlantic) (-18%), and seatrout (Atlantic regions) (-13%) had the largest decreases.

Harvest and Release: Largest Increases

From 2010:

- Rockfishes and scorpionfishes (Pacific and North Pacific) (80%)
- Tunas (Pacific and Western Pacific regions) (48%)
- Dolphinfish (Western Pacific and Atlantic) (42%)

From 2018:

- Pacific salmon (Pacific and North Pacific) (34%)
- Summer flounder (Atlantic regions) (31%)
- Tunas (Pacific and Western Pacific regions) (14%)

Harvest and Release: Largest Decreases

From 2010:

- Summer flounder (Atlantic regions) (-48%)
- Seatrout (Atlantic regions) (-42%)
- Atlantic croaker and spot (Atlantic regions) (-28%)

From 2018:

- Tunas (Atlantic regions) (-47%)
- Dolphinfish (Western Pacific and Atlantic) (-18%)
- Seatrout (Atlantic regions) (-13%)

MARINE ECONOMY — UNITED STATES

For this report, the marine economy refers to the fishing and marine-related industries in a coastal state. The national marine economy consists of two industry sectors: 1) seafood sales and processing (employer establishments and non-employer firms); and 2) transportation support and marine operations (employer establishments). These sectors include several different marine-related industries.[30]

[30] Unless otherwise stated, data are from the U.S. Census Bureau. County Business Patterns data and Nonemployer Statistics available at https://www.census.gov. The Census data are only available through 2018. GDP and Compensation of Employees data was obtained from the U.S. Bureau of Economic Analysis, 'Table SAGDP1 Gross Domestic Product' and 'Table SA6N Compensation of Employees by NAICS Industry,' respectively. Percentage changes in inflation-adjusted (real) dollar terms are calculated using the annual Gross Domestic Product implicit price deflator, which was obtained from the Federal Reserve Bank of St. Louis (https://fred.stlouisfed.org/series/USAGDPDEFAISMEI).

The Commercial Fishing Location Quotient (CFLQ) measures the proportional size of this sector in a state's economy relative to the size of the commercial fishing sector in the national economy.[31] The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The U.S. CFLQ is 1. If a state CFLQ is less than 1, then less commercial fishing occurs in this state than the national average. If a state CFLQ is greater than 1, then more commercial fishing occurs in this state than the national average.

In 2018, 7.9 million employer establishments operated throughout the entire United States (including marine and non-marine related establishments). These establishments employed 130.9 million workers and had a total annual payroll of $7.1 trillion. The nation's gross domestic product was approximately $20.5 trillion in 2018.

Seafood Sales and Processing

Seafood Product Preparation and Packaging: In 2018, there were 2,289 non-employer firms in the seafood product preparation and packaging sector (a 42% increase from 2010). Annual receipts for these firms totaled $188.8 million (a 57% increase in real terms from 2010). More of these non-employer firms were in Florida (287), New York (192), California (181), and Texas (125) than in any other state. There were 555 employer firms in this sector (a 13% decrease from 2010). These establishments employed 30,913 workers (a 3% decrease from 2010) and had a total annual payroll of $1.5 billion (an 18% increase in real terms from 2010). The greatest number of establishments in this sector was in Alaska (100), followed by Washington (77) and California (40).

Retail Seafood Sales: In 2018, there were 2,373 non-employer firms in seafood retail sales (a 6% decrease from 2010). Annual receipts for these firms totaled $216.3 million (a 6% decrease in real terms from 2010). More of these non-employer firms were in Florida (349) and California (233) than in any other state. There were 1,967 employer firms in the seafood retail sector (a 1% decrease from 2010). These establishments employed 11,253 workers (a 14% increase from 2010) and had a total annual payroll of $314.2 million (a 25% increase in real terms from 2010). The greatest number of establishments in this sector was in New York (383), followed by Florida (186) and California (152).

Wholesale Seafood Sales: Nationally, there were 1,998 employer firms in the seafood wholesale sector (an 8% decrease from 2010). These establishments employed 22,668 workers (a 17% increase from 2010) and had a total annual payroll of $1.1 billion (a 19% increase in real terms from 2010). The greatest number of establishments in this sector was in California (314), followed by New York (252) and Florida (232).

Transportation Support and Marine Operations

Coastal and Great Lakes Freight Transportation: There were 553 employer firms in the coastal and Great Lakes freight transportation sector (a 1% increase from 2010). These establishments employed 16,973 workers (a 3% decrease from 2010) and had a total annual payroll of $1.6 billion (an 11% increase in real terms from 2010). Alaska (89), Louisiana (77), and New York (69) had the greatest number of these employer establishments.

Deep Sea Freight Transportation: There were 283 employer firms in the deep sea freight transportation sector (a 24% decrease from 2010). These establishments employed 6,724 workers (a 35% decrease from 2010) and had a total annual payroll of $677 million Florida (64), California (40), and Texas (33) had the greatest number of these employer establishments.

Deep Sea Passenger Transportation: There were 65 employer firms in the deep sea passenger transportation sector (a 16% increase from 2010). These establishments employed 16,261 workers and had a total annual payroll of $1.3 billion Florida (39), California (7), and Washington (4) had the greatest number of these employer establishments.

Marinas: There were 3,732 employer firms classified as marinas (a 5% decrease from 2010). These establishments employed 28,994 workers (a 9% increase from 2010) and had a total annual payroll of $1.2 billion

[31] U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

(an 11% increase in real terms from 2010). Florida (450), New York (415), and California (221) had the greatest number of these employer establishments.

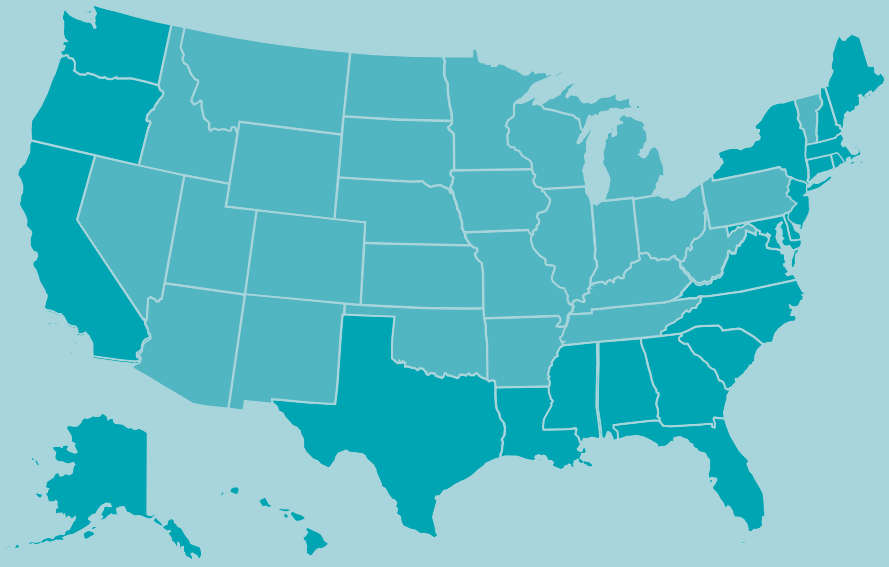
Marine Cargo Handling: There were 464 employer firms providing marine cargo handling services (an 8% decrease from 2010). These establishments employed 62,729 workers (a 10% increase from 2010) and had a total annual payroll of $4.8 billion (a 38% increase in real terms from 2010). Florida (66), California (59), and Texas (53) had the greatest number of these employer establishments.

Navigational Services to Shipping: There were 1,020 employer firms providing navigational services to the shipping sector (a 20% increase from 2010). These establishments employed 15,034 workers (an 11% increase from 2010) and had a total annual payroll of $1.2 billion (an 11% increase in real terms from 2010). Florida (223), Louisiana (163), and Texas (85) had the greatest number of these employer establishments.

Port and Harbor Operations: There were 354 employer firms in the port and harbor operations sector (a 23% increase from 2010). These establishments employed 11,119 workers (a 130% increase from 2010) and had a total annual payroll of $733.5 million (a 120% increase in real terms from 2010). Florida (50), Louisiana (31), and Texas (31) had the greatest number of these employer establishments.

Ship and Boat Building: There were 1,475 employer firms in the ship and boat building sector (a 4% decrease from 2010). These establishments employed 137,486 workers (an 8% increase from 2010) and had a total annual payroll of $8.4 billion (a 13% increase in real terms from 2010). Florida (284), Washington (136), and Louisiana (98) had the greatest number of these employer establishments.

Tables | National Overview



2019 Economic Impacts of the United States Seafood Industry (jobs, thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	1,233,915	165,482,382	43,376,464	67,612,967	696,284	54,884,890	20,101,147	28,507,336
Commercial Havesters	164,522	14,680,679	4,891,017	7,599,797	164,522	14,680,679	4,891,017	7,599,797
Seafood Processors and Dealers	99,630	16,218,109	5,118,330	7,115,051	52,991	8,625,994	2,722,308	3,784,312
Importers	252,396	82,574,434	13,234,128	25,172,303	0	0	0	0
Seafood Wholesalers and Distributors	79,979	12,900,669	4,239,250	6,065,788	24,700	3,984,206	1,309,238	1,873,340
Retail	637,389	39,108,491	15,893,739	21,660,029	454,071	27,594,012	11,178,584	15,249,888

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (millions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	4,648	5,520	5,547	5,541	5,587	5,372	5,502	5,817	5,677	5,598
Finfish	1,852	2,202	2,119	2,144	1,945	1,810	1,783	2,186	1,979	1,962
Shellfish and Other	2,796	3,318	3,428	3,398	3,643	3,562	3,719	3,631	3,699	3,636
Key Species	-	-	-	-	-	-	-	-	-	-
Alaska pollock	280	402	453	406	400	509	417	457	451	388
American lobster	404	423	432	461	567	622	670	568	631	637
Blue crab	205	185	193	186	216	218	211	197	196	209
Menhaden	107	144	128	125	127	180	179	114	161	149
Pacific halibut	203	209	148	115	110	115	122	121	87	98
Pacific salmon	572	665	581	756	617	502	421	788	599	708
Sablefish	134	185	148	102	111	115	117	147	111	89
Sea scallop	452	581	559	467	424	440	488	510	532	570
Shrimp	380	527	505	583	692	487	510	544	510	487
Tunas	108	136	164	146	134	138	157	153	149	142

Total Landings and Landings of Key Species/Species Groups (millions of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	8,297	9,899	9,709	9,779	9,547	9,742	9,645	9,958	9,425	9,371
Finfish	4,869	5,586	5,380	5,391	4,997	5,257	5,030	5,310	4,703	4,880
Shellfish and Other	3,428	4,313	4,328	4,388	4,549	4,486	4,615	4,649	4,722	4,491
Key Species	-	-	-	-	-	-	-	-	-	-
Alaska pollock	1,948	2,811	2,872	3,003	3,146	3,263	3,355	3,389	3,364	3,353
American lobster	118	126	151	151	148	147	159	137	148	127
Blue crab	199	203	183	132	140	153	162	148	140	149
Menhaden	1,473	1,875	1,771	1,341	1,232	1,631	1,736	1,414	1,582	1,512
Pacific halibut	55	42	33	29	22	24	24	26	21	24
Pacific salmon	789	780	637	1,070	720	1,067	561	1,009	577	839
Sablefish	42	43	43	39	35	35	34	38	39	41
Sea scallop	57	59	57	41	34	36	41	52	58	61
Shrimp	245	319	313	291	327	333	292	299	308	275
Tunas	48	50	60	56	58	57	56	55	52	49

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Alaska pollock	0.14	0.14	0.16	0.14	0.13	0.16	0.12	0.13	0.13	0.12
American lobster	3.44	3.35	2.86	3.06	3.83	4.23	4.20	4.14	4.27	5.00
Blue crab	1.03	0.91	1.05	1.41	1.54	1.42	1.31	1.34	1.41	1.40
Menhaden	0.07	0.08	0.07	0.09	0.10	0.11	0.10	0.08	0.10	0.10
Pacific halibut	3.65	4.96	4.47	3.90	4.94	4.85	5.03	4.73	4.05	3.99
Pacific salmon	0.72	0.85	0.91	0.71	0.86	0.47	0.75	0.78	1.04	0.84
Sablefish	3.16	4.29	3.44	2.58	3.13	3.27	3.48	3.90	2.86	2.19
Sea scallop	7.90	9.89	9.83	11.40	12.55	12.32	12.00	9.85	9.20	9.39
Shrimp	1.55	1.65	1.61	2.00	2.12	1.46	1.75	1.82	1.65	1.77
Tunas	2.25	2.73	2.75	2.62	2.29	2.41	2.81	2.81	2.87	2.89

2019 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	27,485	3,467,559	1,154,990	1,974,775
	Private Boat	52,706	8,884,365	2,787,686	5,043,383
	Shore	75,581	11,086,218	3,680,588	6,436,389
Total Durable Expenditures		397,727	65,901,567	22,381,369	36,667,613
Total Impacts		553,499	89,339,709	30,004,633	50,122,160

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	1,462,022
Private Boat	3,864,609
Shore	4,698,197
Total	10,024,828

Equipment	Durable Goods Expenditures
Fishing Tackle	5,335,383
Other Equipment	1,618,779
Boat Expenses	25,129,452
Vehicle Expenses	2,884,237
Total Durable Expenditures	34,967,851

Total State Trip and Durable Goods Expenditures	44,992,679

Recreational Anglers by Residential Area (thousands of anglers)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	9,839	9,446	9,461	9,821	9,585	8,483	8,744	7,892	7,107	NA
Non-Coastal	1,489	1,420	1,436	1,419	1,373	1,319	1,326	1,247	1,190	NA
Total Anglers	11,328	10,866	10,896	11,240	10,958	9,801	10,070	9,139	8,296	NA

Recreational Fishing Effort by Mode (thousands of angler trips)[2,3]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	2,939	3,585	3,760	4,330	4,540	4,500	3,729	3,946	4,019	4,478
Private Boat	92,460	88,601	87,819	84,505	78,553	73,747	73,488	74,623	69,502	66,998
Shore	133,434	131,262	129,981	128,950	124,132	120,017	122,148	126,649	119,836	116,586
Total Trips	228,833	223,448	221,560	217,786	207,224	198,264	199,365	205,218	193,357	188,061

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[4,5]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker and spot (Atlantic regions)	H	40,953	43,579	42,048	53,580	56,014	35,388	29,207	37,945	24,824	23,788
	R	47,751	56,743	63,520	81,918	56,454	41,335	41,899	43,216	37,192	40,251
Dolphinfish (Western Pacific and Atlantic)	H	1,851	3,080	2,509	2,460	2,555	4,018	1,962	2,536	3,153	2,340
	R	496	1,356	496	3,372	1,338	1,952	341	839	883	987
Pacific halibut (North Pacific)	H	398	394	388	454	408	420	400	352	352	352
	R	304	311	324	324	251	271	244	199	184	185
Pacific salmon (Pacific and North Pacific)	H	733	813	743	1,080	1,239	1,073	613	904	614	779
	R	390	508	392	634	486	559	326	446	340	503
Rockfishes and scorpionfishes (Pacific and North Pacific)	H	2,402	3,071	3,633	4,131	4,349	4,171	3,809	3,898	3,753	4,413
	R	601	681	756	991	955	914	866	1,004	1,030	1,007
Seatrout (Atlantic regions)	H	37,342	43,229	45,404	36,529	13,287	14,724	19,463	21,803	15,308	14,634
	R	64,045	72,817	78,095	64,490	38,680	41,357	56,323	58,562	52,533	44,566
Striped bass (Atlantic regions)	H	5,430	5,049	4,077	5,217	4,055	3,135	3,526	3,011	2,456	2,201
	R	19,850	17,032	21,049	26,985	24,521	25,991	34,183	41,734	33,273	29,587
Summer flounder (Atlantic regions)	H	3,540	4,366	5,758	6,625	5,373	4,051	4,306	3,237	2,431	2,451
	R	55,389	51,722	38,969	38,362	39,214	30,141	26,951	24,911	21,141	28,363
Tunas (Atlantic regions)	H	225	302	386	383	177	198	266	297	328	194
	R	50	116	55	26	52	22	71	58	82	24
Tunas (Pacific and Western Pacific regions)	H	563	370	681	730	872	824	457	659	621	791
	R	47	98	30	37	213	147	122	263	173	114

[1] All anglers reported in this table are U.S. residents. No participation values are available after 2018.
[2] Effort for 2014-2019 in Louisiana is estimated using data from a state creel survey and does not capture shore-based effort separately from private boat effort.
[3] Hawai'i trip estimates are not available for the for-hire mode. Oregon, Texas, and Washington trip estimates are not available for the shore mode.
[4] Atlantic Regions refer to those states within New England, Mid-Atlantic, South Atlantic, and the Gulf of Mexico.
[5] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.

2018 United States Economy

#Non-Employer Firms (millions)	#Establishments (millions)	#Employees (millions)	Annual Payroll ($ trillions)	Employee Compensation ($ trillions)	Gross Domestic Product ($ trillions)	Commercial Location Quotient[1]
26.5	7.9	131	7.1	10.9	20.5	1

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. and packaging	Firms	1,617	1,757	1,766	1,812	1,947	2,108	2,208	2,242	2,289
	Receipts	104,990	110,745	115,167	128,927	146,626	163,625	176,593	175,735	188,774
Seafood sales, retail	Firms	2,513	2,514	2,657	2,497	2,557	2,471	2,392	2,428	2,373
	Receipts	199,810	212,679	217,702	205,555	203,459	206,676	207,428	214,481	216,318

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. and packaging	Establishments	638	620	589	604	640	618	586	551	555
	Employees	31,789	31,261	30,988	31,390	32,180	30,708	30,554	31,801	30,913
	Payroll	1,116,305	1,200,263	1,196,207	1,228,826	1,311,910	1,354,572	1,380,087	1,458,900	1,514,150
Seafood sales, wholesale	Establishments	2,183	2,287	1,954	2,098	2,100	2,132	2,176	1,998	1,998
	Employees	19,386	20,622	20,030	20,367	21,155	22,060	22,273	21,914	22,668
	Payroll	798,794	848,454	867,179	884,645	910,527	999,264	1,036,051	1,039,198	1,089,778
Seafood sales, retail	Establishments	1,982	1,972	1,957	1,995	2,015	2,059	2,067	1,960	1,967
	Employees	9,857	10,006	10,293	10,631	11,037	11,443	12,114	10,757	11,253
	Payroll	219,045	222,508	237,619	253,490	271,732	292,726	312,224	279,757	314,173

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	1,540	1,497	1,560	1,514	1,524	1,541	1,508	1,463	1,475
	Employees	127,691	127,522	136,365	135,287	138,687	143,287	140,179	137,300	137,486
	Payroll	6,529,523	6,845,322	7,543,402	7,556,373	7,882,846	8,030,983	7,951,338	7,914,193	8,439,466
Deep Sea Freight Transportation	Establishments	372	378	375	305	332	350	313	276	283
	Employees	10,288	10,362	12,375	8,704	8,646	8,014	7,009	6,515	6,724
	Payroll	867,797	921,990	1,073,529	703,003	683,281	671,624	638,900	654,461	677,031
Deep Sea Passenger Transportation	Establishments	56	55	58	62	56	61	62	69	65
	Employees	ds	ds	ds	ds	ds	15,157	14,596	15,128	16,261
	Payroll	ds	ds	ds	ds	ds	1,246,384	1,155,308	1,299,990	1,314,821
Coastal and Great Lakes Freight Transportation	Establishments	547	549	496	497	598	593	603	581	553
	Employees	17,528	18,590	19,099	18,659	20,884	19,983	19,004	17,799	16,973
	Payroll	1,288,001	1,400,267	1,467,709	1,512,053	1,835,024	1,746,612	1,677,305	1,600,861	1,645,742
Port and Harbor Operations	Establishments	287	255	525	383	351	337	332	335	354
	Employees	4,844	4,933	25,396	7,000	6,769	7,855	8,003	9,005	11,119
	Payroll	290,467	306,882	1,345,857	420,664	399,502	434,209	424,370	503,197	733,536
Marine Cargo Handling	Establishments	507	545	343	458	482	492	492	480	464
	Employees	57,275	59,517	43,824	66,301	69,830	66,414	62,680	58,663	62,729
	Payroll	3,026,861	3,159,964	2,601,146	4,086,182	4,406,525	4,334,958	4,392,350	4,514,115	4,799,924
Navigational Services to Shipping	Establishments	847	836	850	847	881	889	877	1,032	1,020
	Employees	13,529	13,441	12,532	12,485	12,148	11,864	12,457	13,635	15,034
	Payroll	937,980	893,889	838,959	929,419	907,763	923,303	920,450	1,056,307	1,198,227
Marinas	Establishments	3,937	3,896	3,782	3,844	3,811	3,881	3,826	3,669	3,732
	Employees	26,657	26,557	25,764	26,373	26,709	26,999	27,471	26,825	28,994
	Payroll	927,499	953,497	913,140	951,123	995,248	1,036,253	1,081,496	1,050,970	1,177,759

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.

North Pacific Region

- Alaska

A recreational angler, Noelle Olsen, catches a Pacific halibut in Kodiak, Alaska.
Photo: NOAA Fisheries/Noelle Olsen

MANAGEMENT CONTEXT

The North Pacific Region includes the fisheries in the Exclusive Economic Zone (EEZ) off the state of Alaska. Federal fisheries in this region are managed by the North Pacific Fishery Management Council (NPFMC) and NOAA Fisheries under six fishery management plans (FMPs).

North Pacific Region FMPs

- Bering Sea/ Aleutian Islands (BSAI) groundfish
- Gulf of Alaska (GOA) groundfish
- BSAI king and tanner crabs
- Alaska scallop
- Salmon in the EEZ
- Arctic

Of the stocks or stock complexes covered in these FMPs, only the blue king crab (Pribilof Islands stock and St. Matthew Island stock) stocks were listed as overfished in 2019. No stocks were listed as subject to overfishing.

Catch Share Programs

The North Pacific Region has seven catch share programs, more than any other region. These are the: 1) Western Alaska Community Development Quota (CDQ) Program; 2) Alaska Halibut and Sablefish IFQ Program; 3) American Fisheries Act (AFA) Pollock Cooperatives; 4) Bering Sea and Aleutian Islands (BSAI) King and Tanner Crab Rationalization Program; 5) Aleutian Islands Pollock Fishery; 6) Bering Sea and Aleutian Islands (BSAI) Non-Pollock Trawl Catcher/Processor Groundfish Cooperatives (Amendment 80); and 7) Central Gulf of Alaska (GOA) Rockfish Program (pilot implemented in 2007). Excluding the Western Alaska CDQ and Aleutian Islands Pollock Fishery programs, the landings revenues for these programs totaled $820.7 million (in inflation-adjusted 2018 dollars) in 2018, exceeding the total landings revenue of any other state. The following are descriptions of these catch share programs and some key performance indicators.

Western Alaska Community Development Quota (CDQ) Program: The program was originally implemented in 1992 as part of a restructuring of the BSAI groundfish fishery. Under this program, a percentage of the total allowable catch for groundfish, prohibited species, halibut, and crab is apportioned to 65 eligible villages in Western Alaska that are organized into six CDQ groups. The program has the following goals: 1) Provide eligible Western Alaska villages with the opportunity to participate and invest in fisheries in the Bering Sea and Aleutian Islands Management Area; 2) Support economic development in Western Alaska; 3) Alleviate poverty and provide economic and social benefits to residents; and 4) Achieve a sustainable and diversified local economy.

Alaska Halibut and Sablefish IFQ Program: The program was implemented in 1995. The primary objectives of this IFQ program include the following: 1) Eliminate gear conflicts; 2) Address safety concerns; and 3) Improve product quality. The 2018 key performance indicators of the halibut program show that relative to the baseline period, quota, landings, and the number of active vessels decreased, while inflation-adjusted landings revenue and inflation-adjusted revenue per active vessel increased. The 2018 key performance indicators of the sablefish program show that relative to the baseline period, quota, landings, the number of active vessels, and inflation-adjusted landings revenue decreased, while inflation-adjusted revenue per vessel increased.

American Fisheries Act (AFA) Pollock Cooperatives: The program was established in 1999 and 2000 with the goals of settling allocation disputes between inshore (catcher vessels), offshore (catcher/processors), and mothership sectors, and ending the race for fish. The 2018 key performance indicators of the program show that relative to the baseline period, the number of active vessels decreased, while quota, landings, inflation-adjusted landings revenue, and inflation-adjusted revenue per active vessel increased.

Bering Sea and Aleutian Islands (BSAI) King and Tanner Crab Rationalization Program: The program was implemented for the 2005–2006 crab fishing season to address the race to harvest; high bycatch and discard mortality; and product quality issues. The program also aims to balance the interests of those who depend on crab fisheries. This program includes share allocations to harvesters and processors. Processor quota was incorporated to preserve the viability of processing facilities in dependent communities

and, particularly, to maintain competitive conditions in ex-vessel markets. The CDQ and Adak Community allocations, regional landings and processing requirements, and several community protection measures serve to protect community interests. The 2018/2019 key performance indicators of the program show that relative to the baseline period, quota, landings, the number of active vessels, and inflation-adjusted landings revenue decreased, while inflation-adjusted revenue per active vessel increased.

Aleutian Islands Pollock Fishery: In 2005, Amendment 82 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area established a framework for the management of the Aleutian Islands subarea directed pollock fishery. The FMP Amendment was proposed by the North Pacific Fishery Management Council to implement a provision of the Consolidated Appropriations Act of 2004 (Public Law 108–199, Sec. 803), which requires that the Aleutian Islands directed pollock fishery be allocated to the Aleut Corporation for the purpose of economic development in Adak, Alaska.

BSAI Non-Pollock Trawl Catcher/Processor Groundfish Cooperatives (Amendment 80): The program, commonly referred to as the Amendment 80 Program, was implemented in 2008 to create economic incentives that would improve retention of all fish caught. The cooperatives also seek to reduce bycatch by commercial fishing vessels using trawl gear in the non-pollock groundfish fisheries. The 2018 key performance indicators of the program show that relative to the baseline period, quota dipped slightly (less than 1%) and the number of active vessels decreased 10%; landings, inflation-adjusted landings revenue, and inflation-adjusted revenue per active vessel increased.

Central Gulf of Alaska Rockfish Program: The program was initially established as a two-year (2007–2008) pilot program by the U.S. Congress and was later extended to five years. NOAA Fisheries implemented this catch share program in 2012. The objectives of this program are to reduce bycatch and discards, encourage conservation-minded practices, improve product quality and value, and provide stability to the processing labor force. The 2018 key performance indicators of the program show that relative to the baseline period, quota, landings, the number of active vessels, inflation-adjusted landings revenue, and inflation-adjusted revenue per active vessel all increased.

COMMERCIAL FISHERIES — NORTH PACIFIC (ALASKA) REGION

In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

Key North Pacific Commercial Species

- Alaska pollock
- Atka mackerel
- Crab
- Flatfish
- Pacific cod
- Pacific halibut
- Pacific herring
- Rockfish
- Sablefish
- Salmon

The Alaska groundfish fishery is different from most other United States fisheries in that a large portion of the fishery is processed at sea and, therefore, no landings revenues are reported. The landings revenue for the species landed and processed at sea is estimated by using prices obtained from the shore-side sector. These species include Atka mackerel, flatfish, Pacific cod, rockfish, sablefish, and Alaska pollock. When data from the shore-side sector are inadequate, historical information about the relationship between the ex-vessel price and the wholesale price of finished products is used to estimate ex-vessel prices and revenue for portions of the fishery mostly processed at sea.

Economic Impacts

The premise behind economic impact modeling is that every dollar spent in a regional economy (direct impact) is either saved or re-spent on additional goods or services. If those dollars are re-spent on other goods and

services in the regional economy, this spending generates additional economic activity in the region.[1]

Four different measures are commonly used to show how commercial fisheries landings affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as commercial fishing. The category includes both the direct sales of fish landed and sales made between businesses and households resulting from the original sale. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the sales of seafood or purchases of inputs to commercial fishing. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. The United States seafood industry is defined here as the commercial fishing sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers.[2]

This report provides estimates of total economic impacts for the nation and for each of the 23 coastal states. Total economic impacts for each state and the nation represent the sum of direct impacts; indirect impacts (in this case, the impact from suppliers to the seafood industry); and induced impacts (spending by employees on personal and household expenditures, where employees of both the seafood industry and its full supply chain are included). That is, the total economic impact estimates reported here measure jobs, sales, value-added, and income impacts from the seafood industry as well as the economic activity generated throughout each region's broader economy from this industry.

In 2019, the commercial fishing and seafood industry supported 52,702 full- and part-time jobs and generated $4.3 billion in sales, $1.9 billion in income, and $2.4 billion in value-added impacts in Alaska. Commercial harvesters generated the largest sales impacts ($3 billion), value-added impacts ($1.7 billion), income impacts ($1.4 billion), and employment impacts (38,107 jobs).

Landings Revenue

In 2019, landings revenue in Alaska totaled $1.8 billion, a 7% increase from 2010 (a 9% decrease in real terms after adjusting for inflation) and a 2% decrease from 2018.

Finfish landings revenue accounted for 66% of all landings revenue. In 2019, salmon ($673.4 million), Alaska pollock ($387.6 million), and flatfish ($186.9 million) had the highest landings revenue in this region. Together, these top three species accounted for 71% of total landings revenue.

From 2010 to 2019, rockfish (77%, 51% in real terms), Atka mackerel (46%, 25% in real terms), and Alaska pollock (38%, 19% in real terms) had the largest increases, while Pacific halibut (-54%, -60% in real terms), flatfish (-33%, -42% in real terms), and sablefish (-30%, -40% in real terms) had the largest decreases. From 2018 to 2019, Pacific herring (223%), salmon (22%), and crab (21%) had the largest increases, while Pacific cod (-50%), sablefish (-20%), and Atka mackerel (-20%) had the largest decreases.

Commercial Revenue: Largest Increases

From 2010:
- Rockfish (77%, 51% in real terms)
- Atka mackerel (46%, 25% in real terms)
- Alaska pollock (38%, 19% in real terms)

From 2018:
- Pacific herring (223%)
- Salmon (22%)
- Crab (21%)

Commercial Revenue: Largest Decreases

From 2010:
- Pacific halibut (-54%, -60% in real terms)
- Flatfish (-33%, -42% in real terms)
- Sablefish (-30%, -40% in real terms)

From 2018:
- Pacific cod (-50%)
- Sablefish (-20%)
- Atka mackerel (-20%)

[1] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]
[2] The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates. [Available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf.]

Landings

In 2019, Alaska commercial fishermen landed over 5.6 billion pounds of finfish and shellfish. This represents a 29% increase from 2010 and a 4% increase from 2018. Alaska pollock contributed the highest landings volume in the region, accounting for 60% of total landing weight.

From 2010 to 2019, rockfish (78%), Alaska pollock (72%), and salmon (9%) had the largest increases, while Pacific halibut (-58%), Pacific herring (-53%), and crab (-38%) had the largest decreases. From 2018 to 2019, salmon (49%), crab (25%), and rockfish (15%) had the largest increases, while Atka mackerel (-19%), Pacific cod (-10%), and Alaska pollock (-0.3%) had the largest decreases.

Commercial Landings: Largest Increases

From 2010:
- Rockfish (78%)
- Alaska pollock (72%)
- Salmon (9%)

From 2018:
- Salmon (49%)
- Crab (25%)
- Rockfish (15%)

Commercial Landings: Largest Decreases

From 2010:
- Pacific halibut (-58%)
- Pacific herring (-53%)
- Crab (-38%)

From 2018:
- Atka mackerel (-19%)
- Pacific cod (-10%)
- Alaska pollock (-0.3%)

Prices

In 2019, Pacific halibut ($4.02 per pound) received the highest ex-vessel price in the region. Landings of Alaska pollock ($0.12 per pound) had the lowest ex-vessel price. From 2010 to 2019, Pacific herring (105%, 76% in real terms), Atka mackerel (66%, 42% in real terms), and crab (35%, 15% in real terms) had the largest increases, while sablefish (-34%, -44% in real terms), Alaska pollock (-20%, -31% in real terms), and flatfish (-16%, -28% in real terms) had the largest decreases. From 2018 to 2019, Pacific herring (188%) and flatfish (10%) had the largest increases, while Pacific cod (-45%), sablefish (-25%), and salmon (-18%) had the largest decreases.

RECREATIONAL FISHERIES — NORTH PACIFIC (ALASKA) REGION

In this report, recreational fishing refers to fishing for leisure rather than to sell fish (commercial fishing) or for subsistence. This recreational fisheries section reports on economic impacts and expenditures, angler participation, fishing trips, and catch of key species/species groups.[3]

Key North Pacific Recreational Species[4]

- Chinook salmon
- Chum salmon
- Coho salmon
- Lingcod
- Pacific cod
- Pacific halibut
- Pink salmon
- Rockfish species
- Sablefish/black cod
- Shark species
- Sockeye salmon

Economic Impacts and Expenditures

The economic contribution of recreational fishing activities in the North Pacific Region is based on spending by recreational anglers.[5] Total annual trip expenditures are estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusting by the CPI (consumer price index) to the current year. After 2018, state level durable expenditures and durable impacts will no longer be available due to changes in the availability of angler participation data at the state level.

Four different measures are commonly used to show how angler expenditures affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as recreational fishing. The category includes both the direct sales made by the angler and sales made

[3] Information reported in this table is from the Sport Fish Division of the Alaska Department of Fish and Game (ADF&G) for saltwater fishing activities.
[4] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[5] Trip expenditure estimates were generated from the 2016/2017 National Marine Recreational Fishing Expenditure Survey (Lovell et al., 2020). Durable goods expenditures were generated from the 2019 National Marine Recreational Fishing Expenditure Survey. [For citations: Publications-Recreational Fisheries Economics Research.]

between businesses and households resulting from that original sale by the angler. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in number of jobs. Note that these categories are not additive. NOAA Fisheries uses a regional impact modeling software, called IMPLAN, to estimate these four types of impacts.

The economic contributions for trip expenditures from recreational fishing in 2019 were estimated using IMPLAN version 3, with base year data from 2017. Models for each state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2019 trips).

In 2019, economic impacts from recreational fishing trips in the North Pacific Region generated 3,910 jobs, $456.1 million in sales, $152.2 million in income, and $263.7 million in value-added impacts.

Of the three fishing trip modes, for-hire fishing trips had the greatest economic impact, accounting for 74% of employment impacts. Approximately $349.2 million of these expenditures were related to trip expenses, with a large portion of these trip expenditures came from trips in the for-hire (59%) and private boat (38%) sectors.

Participation

Due to changes in data availability after 2018, angler participation data is not being reported at the state level for 2019.

Days Fished

The state of Alaska records recreational fishing effort in terms of the number of days fished, rather than the number of fishing trips. Anglers who fished in Alaska spent approximately 829,719 days fishing in 2019. This number represented a 12% increase from the days spent fishing in 2010. From 2018 to 2019, there was a 7% increase in the number of days fished.

Harvest and Release Trends

Of the North Pacific Region's key species and species groups, Pacific halibut (537,164 fish), rockfish species (521,145 fish), and coho salmon (395,327 fish), were most frequently caught by recreational fishermen. The text box below shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2010 to 2019, sablefish/black cod (116%), sockeye salmon (104%), and chum salmon (36%) had the largest increases, while Pacific cod (-63%), shark species (-61%), and lingcod (-4%) had the largest decreases. From 2018 to 2019, chum salmon (88%), Pacific cod (60%), and pink salmon (56%) had the largest increases, while shark species (-34%) and lingcod (-4%) had the largest decreases.

Harvest and Release: Largest Increases

From 2010:

- Sablefish/black cod (116%)
- Sockeye salmon (104%)
- Chum salmon (36%)

From 2018:

- Chum salmon (88%)
- Pacific cod (60%)
- Pink salmon (56%)

Harvest and Release: Largest Decreases

From 2010:

- Pacific cod (-63%)
- Shark species (-61%)
- Lingcod (-4%)

From 2018:

- Shark species (-34%)
- Lingcod (-4%)

MARINE ECONOMY — NORTH PACIFIC (ALASKA) REGION

For this report, the marine economy refers to the fishing and marine-related industries in a coastal state. The state marine economy consists of two industry sectors: 1) seafood sales and processing (employer establishments and non-employer firms); and 2) transportation support and marine operations (employer establishments). These sectors include several different marine-related industries.[6]

The Commercial Fishing Location Quotient (CFLQ) measures the size of the commercial fishing sector in a state's economy relative to the size of the commercial fishing sector in the national economy.[7] The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The U.S. CFLQ is 1. If a state CFLQ is less than 1, then less commercial fishing occurs in this state than the national average. If a state CFLQ is greater than 1, then more commercial fishing occurs in this state than the national average.

The Bureau of Labor Statistics suppressed the CFLQ value for Alaska for 2018.

In 2018, 21,293 employer establishments operated in the North Pacific (Alaska) Region (including marine and non-marine related establishments). These establishments employed 261,053 workers and had a total annual payroll of $15.7 billion. The combined gross state product of Alaska was approximately $54.7 billion in 2018.

Seafood Sales and Processing

Seafood Product Preparation and Packaging: In 2018, Alaska had 20 non-employer firms in the seafood product preparation and packaging sector (a 29% decrease from 2010). Annual receipts for these firms totaled $2.2 million (a 23% decrease in real terms from 2010). There were 100 employer firms in the seafood product preparation and packaging sector (a 16% decrease from 2010).

Retail Seafood Sales: In 2018, there were 15 non-employer firms in seafood retail sales in Alaska (a 35% decrease from 2010). Annual receipts for these firms totaled $1.8 million (remains unchanged in real terms from 2010). There were 15 employer firms in the seafood retail sector (a 50% increase from 2010).

Wholesale Seafood Sales: There were 39 employer firms in the seafood wholesale sector in Alaska in 2018 (a 25% decrease from 2010).

Transportation Support and Marine Operations

Data for the transportation support and marine operations sectors of Alaska's economy were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the regional economy. For example, in 2018, the coastal and Great Lakes freight transportation sector in Alaska accounted for $104 million in payroll.

[6] Unless otherwise stated, data are from the U.S. Census Bureau. County Business Patterns data and Nonemployer Statistics available at https://www.census.gov. The Census data are only available through 2018. GDP and Compensation of Employees data was obtained from the U.S. Bureau of Economic Analysis, 'Table SAGDP1 Gross Domestic Product' and 'Table SA6N Compensation of Employees by NAICS Industry,' respectively. Percentage changes in inflation-adjusted (real) dollar terms are calculated using the annual Gross Domestic Product implicit price deflator, which was obtained from the Federal Reserve Bank of St. Louis (https://fred.stlouisfed.org/series/USAGDPDEFAISMEI).

[7] U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

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2019 Economic Impacts of the Alaska Seafood Industry (jobs, thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	52,702	4,321,384	1,930,355	2,391,356	52,559	4,288,969	1,923,803	2,380,309
Commercial Harvesters	38,107	3,010,665	1,369,038	1,688,737	38,107	3,010,665	1,369,038	1,688,737
Seafood Processors & Dealers	11,411	1,090,050	475,673	589,758	11,388	1,087,836	474,704	588,559
Importers	83	26,999	4,327	8,230	0	0	0	0
Seafood Wholesalers & Distributors	354	43,915	15,036	19,634	339	42,039	14,394	18,796
Retail	2,748	149,756	66,282	84,996	2,726	148,430	65,667	84,218

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (millions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	1,643	2,021	1,969	1,878	1,712	1,768	1,551	2,003	1,782	1,754
Finfish	1,124	1,310	1,186	1,225	1,059	966	898	1,355	1,159	1,162
Shellfish and Other	520	711	783	653	653	802	653	648	623	592
Key Species	-	-	-	-	-	-	-	-	-	-
Alaska pollock	280	402	453	406	400	509	417	457	451	388
Atka mackerel	31	30	31	15	22	31	32	51	55	44
Crab	222	290	309	230	238	279	219	173	152	184
Flatfish	277	306	260	227	201	175	183	200	161	187
Pacific cod	146	163	171	156	153	174	171	194	239	119
Pacific halibut	200	205	145	111	107	111	117	116	83	93
Pacific herring	22	11	22	16	11	7	5	8	7	21
Rockfish	22	34	33	35	28	29	30	31	34	38
Sablefish	98	140	120	82	86	86	86	113	86	68
Salmon	521	612	533	680	546	455	381	745	553	673

Total Landings and Landings of Key Species/Species Groups (millions of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	4,349	5,355	5,346	5,792	5,671	6,014	5,586	6,006	5,404	5,631
Finfish	2,316	2,459	2,356	2,696	2,433	2,645	2,155	2,571	1,992	2,224
Shellfish and Other	2,033	2,897	2,990	3,096	3,238	3,369	3,430	3,435	3,412	3,408
Key Species	-	-	-	-	-	-	-	-	-	-
Alaska pollock	1,948	2,811	2,872	3,003	3,146	3,263	3,355	3,389	3,364	3,353
Atka mackerel	145	113	104	51	70	118	121	143	157	127
Crab	80	80	112	87	85	97	69	39	39	49
Flatfish	595	633	631	641	637	494	511	488	453	479
Pacific cod	539	663	717	681	717	697	707	657	512	464
Pacific halibut	55	41	32	29	22	23	23	25	20	23
Pacific herring	108	99	75	85	97	68	52	68	46	51
Rockfish	100	106	115	123	133	142	146	138	155	178
Sablefish	27	29	31	30	26	24	22	26	27	29
Salmon	757	738	612	1,013	683	1,041	543	986	557	827

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Alaska pollock	0.14	0.14	0.16	0.14	0.13	0.16	0.12	0.13	0.13	0.12
Atka mackerel	0.21	0.27	0.29	0.30	0.32	0.26	0.26	0.36	0.35	0.35
Crab	2.79	3.61	2.76	2.64	2.79	2.87	3.19	4.46	3.88	3.76
Flatfish	0.47	0.48	0.41	0.35	0.31	0.35	0.36	0.41	0.36	0.39
Pacific cod	0.27	0.25	0.24	0.23	0.21	0.25	0.24	0.30	0.47	0.26
Pacific halibut	3.65	4.97	4.47	3.88	4.93	4.84	5.03	4.74	4.06	4.02
Pacific herring	0.20	0.11	0.29	0.19	0.12	0.10	0.10	0.12	0.15	0.42
Rockfish	0.22	0.32	0.29	0.28	0.21	0.21	0.21	0.22	0.22	0.21
Sablefish	3.60	4.84	3.82	2.72	3.37	3.62	3.93	4.43	3.15	2.36
Salmon	0.69	0.83	0.87	0.67	0.80	0.44	0.70	0.76	0.99	0.81

2019 Economic Impacts of Alaska Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	2,901	298,357	103,444	167,564
	Private Boat	927	146,393	44,923	89,081
	Shore	82	11,367	3,805	7,066
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		3,910	456,117	152,172	263,711

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)[2]

Fishing Mode	Trip Expenditures
For-Hire	207,201
Private Boat	132,092
Shore	9,944
Total	349,237

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	349,237

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal/Non-Coastal	122	124	118	129	122	128	115	117	110	NA
Out-of-State	159	161	160	178	170	181	181	178	186	NA
Total Anglers	281	286	278	307	292	309	296	295	296	NA

Recreational Fishing Effort by Mode (thousands of angler fishing days)[3]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Angler Days Fished	738	737	735	897	876	890	782	812	774	830

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[4,5,6]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Chinook salmon	H	78	85	63	81	111	111	101	85	62	64
	R	66	95	62	120	94	116	87	106	74	92
Chum salmon	H	11	21	11	25	12	13	10	10	6	11
	R	19	38	20	39	19	25	22	22	16	29
Coho salmon	H	350	386	263	493	390	479	263	468	297	338
	R	74	88	50	122	60	99	41	71	45	57
Lingcod	H	32	33	33	34	32	28	26	22	29	28
	R	39	36	36	33	29	27	23	27	43	41
Pacific cod	H	37	48	42	38	61	58	44	20	15	26
	R	81	76	50	48	73	75	43	24	12	18
Pacific halibut	H	398	394	388	454	408	420	400	352	352	352
	R	304	311	324	324	251	271	244	199	184	185
Pink salmon	H	82	72	78	113	69	110	103	102	70	121
	R	121	135	141	203	118	204	126	170	104	151
Rockfish species	H	224	211	230	256	335	332	347	279	309	330
	R	151	122	121	121	148	143	157	129	150	191
Sablefish/ black cod	H	9	10	18	18	12	23	15	22	26	26
	R	7	8	9	6	6	13	4	6	8	8
Shark species	H	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1	< 1	< 1
	R	29	14	13	11	28	20	16	10	17	11
Sockeye salmon	H	28	31	28	40	35	33	34	36	38	57
	R	6	10	8	13	12	9	7	10	7	11

[1] NA = Not applicable.
[2] All data reported in this table are from saltwater fishing activities.
[3] Alaska effort is measured in 'Days Fished,' not in 'Angler Trips.' Numbers before 2011 use estimates of the portion of days fished devoted to shellfish, which were excluded.
[4] Information reported in this table is from the Sport Fish Division of the Alaska Department of Fish and Game (ADF&G) for saltwater fishing activities.
[5] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[6] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Alaska State Economy (% of national total)[1]

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[2]
57,391 (0.2%)	21,293 (0.3%)	261,053 (0.2%)	15.7 (0.2%)	28.3 (0.3%)	54.7	ds

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	28	26	25	35	31	30	22	20	20
	Receipts	2,482	2,882	2,708	3,268	2,472	4,091	1,743	1,792	2,183
Seafood sales, retail	Firms	23	15	15	11	17	11	13	20	15
	Receipts	1,595	903	1,626	1,458	1,539	761	1,483	1,384	1,830

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	119	122	116	115	108	109	104	94	100
	Employees	8,074	8,578	8,289	8,638	9,115	8,472	8,654	8,553	7,782
	Payroll	268,208	296,851	297,284	308,961	337,171	356,855	355,129	347,495	352,136
Seafood sales, wholesale	Establishments	52	48	47	43	43	37	33	36	39
	Employees	ds	159	143	102	120	94	79	277	248
	Payroll	9,141	9,985	10,943	7,205	7,024	7,306	6,037	22,658	24,231
Seafood sales, retail	Establishments	10	10	15	14	14	15	16	14	15
	Employees	ds	ds	ds	ds	ds	64	77	53	55
	Payroll	1,986	2,487	2,019	2,337	2,687	2,498	2,549	1,798	1,945

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	22	23	23	20	27	23	23	17	16
	Employees	ds	ds	ds	ds	335	344	394	327	270
	Payroll	ds	ds	ds	ds	15,845	17,748	18,762	14,505	14,765
Deep Sea Freight Transportation	Establishments	3	1	2	3	6	5	5	4	4
	Employees	ds	ds	ds	ds	ds	ds	ds	0	28
	Payroll	ds	ds	ds	ds	ds	ds	ds	0	8,721
Deep Sea Passenger Transportation	Establishments	NA	1	1	2	1	1	1	3	NA
	Employees	NA	ds	ds	ds	ds	ds	ds	0	NA
	Payroll	NA	ds	ds	ds	ds	ds	ds	0	NA
Coastal and Great Lakes Freight Transportation	Establishments	55	63	47	53	72	74	79	90	89
	Employees	ds	ds	ds	ds	ds	1,067	966	981	1,201
	Payroll	ds	ds	ds	82,692	89,020	89,281	86,849	86,178	103,960
Port and Harbor Operations	Establishments	9	8	18	13	12	11	11	9	10
	Employees	ds	ds	582	ds	ds	ds	14	0	30
	Payroll	ds	1,790	25,545	ds	ds	ds	904	0	1,898
Marine Cargo Handling	Establishments	13	14	8	9	9	9	8	7	7
	Employees	ds	ds	334	ds	ds	437	410	436	402
	Payroll	ds	ds	26,481	ds	ds	32,326	32,171	31,439	31,676
Navigational Services to Shipping	Establishments	25	22	21	22	25	24	23	28	30
	Employees	303	321	97	103	138	140	126	168	174
	Payroll	27,543	27,156	9,938	10,805	13,015	13,596	14,221	17,063	19,971
Marinas	Establishments	14	14	13	12	11	11	10	9	9
	Employees	ds	ds	ds	ds	ds	30	33	43	40
	Payroll	1,932	2,053	1,613	1,449	ds	1,423	1,568	1,818	1,584

[1] ds = Data are suppressed.
[2] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[3] NA = Not applicable.

Pacific Region

- California
- Oregon
- Washington

Charterboats at dock in San Diego, California.
Photo: Pacific Fishery Management Council/Mike Burner

MANAGEMENT CONTEXT

The Pacific Region includes California, Oregon, and Washington. Federal fisheries in this region are managed by the Pacific Fishery Management Council (PFMC) and NOAA Fisheries under four fishery management plans (FMPs).

Pacific Region FMPs

- Coastal pelagic species
- Pacific coast salmon
- Pacific coast groundfish
- West Coast highly migratory species

Seven of the stocks or stock complexes covered in these FMPs were listed as overfished in 2019: Chinook salmon (Sacramento River fall stock and Klamath River fall stock); coho salmon (Queets stock, Juan de Fuca stock, and Snohomish stock); Pacific bluefin tuna (Pacific stock); and, newly added in 2019, Pacific sardine (northern subpopulation). Three stocks/complexes were subject to overfishing in 2019: Pacific bluefin tuna (Pacific stock); swordfish (Eastern Pacific stock); and yellowfin tuna (Eastern Pacific stock.[1] Chinook salmon (Columbia River Basin: Upper River summer stock) was removed from the overfishing list in 2019.

Conservative management techniques are employed in the Pacific Region's fisheries. For example, groundfish and salmon fisheries are subject to "weak stock management" where access to the surplus of healthier stocks that can be harvested is often restricted to protect weaker stocks with which they commingle in the ocean. These weaker stocks have included 10 groundfish stocks that have been managed under rebuilding plans, salmon (listed under the Endangered Species Act), and other non-listed stocks that constrain the fishery. Currently, nine of the 10 groundfish stocks have been successfully rebuilt since the stocks were declared overfished or depleted in 1999;[2] only the yelloweye rockfish stock is currently managed under a rebuilding plan.[3]

Salmon management is further complicated by the need to ensure equal allocation of harvest among diverse user groups and coordination with other entities that have jurisdiction over various aspects of salmon management. Decades of habitat modification, hatchery practices, harvest and growing competition for water have affected the viability of salmon stocks and made them more vulnerable to adverse environmental conditions. These conditions include the prolonged drought and adverse ocean conditions experienced in recent years. Low returns of salmon to the Klamath River in 2006 and to the Sacramento River in 2008 and 2009 resulted in unprecedented closures of ocean and in-river fisheries, leading to federal disaster relief for affected entities.

Coastal pelagic species (CPS) are highly variable, environmentally sensitive stocks that provide food for marine mammals, birds, and fish. These species include Pacific sardine, northern anchovy, Pacific and jack mackerel, and market squid. Of these species, Pacific sardine is the most commonly targeted CPS finfish and is managed according to an innovative harvest control rule: Allowable harvest varies with sea surface temperature. Because the geographic range of sardine tends to expand with abundance, harvest allocation between the California and Pacific Northwest fisheries is an ongoing and dynamic issue. The annual guideline for sardine harvest is allocated coast-wide on a seasonal basis. Recent decreases in harvest guideline limits have contributed to the development of an intense derby fishery.

Catch limits for Pacific halibut, a transboundary fish stock, are set in January by the International Pacific Halibut Commission (IPHC). This bilateral commission between the United States and Canada determines total allowable catch levels (TACs) for Pacific halibut that will be caught in the United States and Canadian exclusive economic zones (EEZs). After catch levels are determined, the PFMC develops a catch-sharing plan for tribal and non-tribal (i.e., commercial and recreational) fisheries in the federal waters of California, Oregon, and Washington. Pacific halibut is targeted only with hook gear, but there are allocations to the trawl sector for bycatch, including individual bycatch quotas, in the Pacific groundfish trawl IFQ.

[1] The bluefin tuna, yellowfin tuna, swordfish and striped marlin stocks cited here as overfished and/or experiencing overfishing are fished by U.S. and international fleets under a formal international agreement.
[2] Pacific Fishery Management Council. 2021. Council news: Rigorous management practices have led to successful rebuilding of several West Coast groundfish stocks. [Available at https://www.pcouncil.org/council-news-rigorous-management-practices-have-led-to-successful-rebuilding-of-several-west-coast-groundfish-stocks/ (accessed September 29, 2021.]
[3] Pacific Fishery Management Council. 2021. Fact Sheet: Overfishing and Rebuilding. [Available at https://www.pcouncil.org/fact-sheet-overfishing-and-rebuilding/, accessed September 29, 2021.]

The Highly Migratory Species (HMS) FMP includes tunas, billfish, and pelagic sharks as managed species. The albacore surface hook-and-line fishery is by far the most economically important commercial HMS fishery, followed by the drift gillnet fishery for swordfish and thresher shark. This fisheryis also a very important component of the catch for the Pacific Region's commercial passenger fishing vessel fleet and the private recreational boat fleet.

Catch Share Programs

The Pacific Region has two catch share programs: 1) the Pacific Coast Sablefish Permit Stacking Program; and 2) the Pacific Groundfish Trawl Rationalization Program (whiting and non-whiting trawl). The landings revenues for these programs totaled $62.7 million (in inflation-adjusted 2018 dollars) in 2018. The following are descriptions of these catch share programs and their performance.

Pacific Coast Sablefish Permit Stacking Program: This program was implemented in 2001 and allows vessels to stack multiple vessel permits on a single vessel. The goal of this approach is to improve economic efficiency through rationalization of the fixed gear fleet, increase benefits for fishing communities, promote equity, lessen reallocation effects of previous harvest regulations, promote safety, and improve product quality and value. The 2018 key performance indicators of the program show that relative to the baseline period, landings and the number of active vessels decreased while inflation-adjusted landings revenue and inflation-adjusted revenue per active vessel increased. There was no catch quota prior to the implementation of the catch share program so program performance could not be evaluated for this metric.

A recent study of this fleet demonstrated that after the catch share program was implemented, the probability of fishermen taking a fishing trip in high wind conditions decreased 82%. This provides evidence that institutional changes can significantly reduce risk taking behavior and result in safer fisheries.

Pacific Groundfish Trawl Rationalization Program (whiting and non-whiting trawl): This program was implemented by the PFMC in January 2011. This program involves individual fishing quotas (IFQs) for non-whiting groundfish and whiting trawlers delivering to shoreside plants and cooperatives for whiting mothership and catcher processor sectors. The objectives of this program are to provide a mechanism for total catch accounting; provide a viable, profitable, and efficient groundfish fishery; promote practices that reduce bycatch and discard mortality and minimize ecological impacts; increase operational flexibility; minimize adverse effects from the IFQ program on fishing communities and other fisheries; promote measurable economic and employment benefits through the seafood catching, processing, distribution, and support sectors of the industry; provide quality product for the consumer; and increase safety in the fishery.

The 2018 key performance indicators of the program show that relative to the baseline period the number of active vessels decreased, while landings, inflation-adjusted landings revenue, and inflation-adjusted revenue per active vessel increased. There was no catch quota prior to the implementation of the catch share program so program performance could not be evaluated for this metric.

Expanded observer coverage and dockside monitoring, which were implemented with the catch share program, coupled with long-term adherence to catch targets and improved stock assessment models, have to varying degrees also contributed to improved fishery performance. For example, in the first three years of catch shares, the total catch of rebuilding stocks (of which two — canary rockfish and petrale sole — are now declared rebuilt) was 50% lower than in the previous three years.

COMMERCIAL FISHERIES — PACIFIC REGION

In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

Key Pacific Region Commercial Species

- Albacore tuna
- Crab
- Flatfish
- Other shellfish
- Pacific hake (whiting)
- Rockfish
- Sablefish
- Salmon
- Shrimp
- Squid

Economic Impacts

The premise behind economic impact modeling is that every dollar spent in a regional economy (direct impact) is either saved or re-spent on additional goods or services. If those dollars are re-spent on other goods and services in the regional economy, this spending generates additional economic activity in the region.[4]

Four different measures are commonly used to show how commercial fisheries landings affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as commercial fishing. The category includes both the direct sales of fish landed and sales made between businesses and households resulting from the original sale. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the sales of seafood or purchases of inputs to commercial fishing. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. The United States seafood industry is defined here as the commercial fishing sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers.[5]

This report provides estimates of total economic impacts for the nation and for each of the 23 coastal states. Total economic impacts for each state and the nation represent the sum of direct impacts; indirect impacts (in this case, the impact from suppliers to the seafood industry); and induced impacts (spending by employees on personal and household expenditures, where employees of both the seafood industry and its full supply chain are included). That is, the total economic impact estimates reported here measure jobs, sales, value-added, and income impacts from the seafood industry as well as the economic activity generated throughout each region's broader economy from this industry.

In 2019, the commercial fishing and seafood industry in California generated the largest employment impacts in the Pacific Region with 135,340 full- and part-time jobs. California also generated the largest sales impacts ($26.9 billion), value-added impacts ($9.5 billion), and income impacts ($5.7 billion).

Landings Revenue

In 2019, landings revenue in the Pacific Region totaled $715.3 million, a 21% increase from 2010 (a 4% increase in real terms after adjusting for inflation) and an 8% decrease from 2018. Landings revenue was highest in Washington ($351.2 million), followed by Oregon ($165 million).

Shellfish and other landings revenue accounted for 71% of all landings revenue. In 2019, crab ($207.4 million), other shellfish ($152 million), and Pacific hake (whiting) ($64.6 million) had the highest landings revenue in this region. Together, these top three species accounted for 59% of total landings revenue.

From 2010 to 2019, rockfish (201%, 158% in real terms), Pacific hake (whiting) (154%, 117% in real terms), and shrimp (102%, 73% in real terms) had the largest increases, while squid (-77%, -80% in real terms), sablefish (-42%, -51% in real terms), and salmon (-32%, -41% in real terms) had the largest decreases. From 2018 to 2019, Pacific hake (whiting) (34%), albacore tuna (12%), and rockfish (9%) had the largest increases, while squid (-58%), salmon (-25%), and sablefish (-18%) had the largest decreases.

[4] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]
[5] The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates. [Available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf.]

Commercial Revenue: Largest Increases

From 2010:
- Rockfish (201%, 158% in real terms)
- Pacific hake (whiting) (154%, 117% in real terms)
- Shrimp (102%, 73% in real terms)

From 2018:
- Pacific hake (whiting) (34%)
- Albacore tuna (12%)
- Rockfish (9%)

Commercial Revenue: Largest Decreases

From 2010:
- Squid (-77%, -80% in real terms)
- Sablefish (-42%, -51% in real terms)
- Salmon (-32%, -41% in real terms)

From 2018:
- Squid (-58%)
- Salmon (-25%)
- Sablefish (-18%)

Commercial Landings: Largest Increases

From 2010:
- Rockfish (590%)
- Pacific hake (whiting) (126%)
- Other shellfish (3%)

From 2018:
- Pacific hake (whiting) (19%)
- Albacore tuna (9%)
- Other shellfish (3%)

Commercial Landings: Largest Decreases

From 2010:
- Squid (-89%)
- Salmon (-64%)
- Flatfish (-35%)

From 2018:
- Squid (-59%)
- Salmon (-41%)
- Shrimp (-21%)

Landings

In 2019, Pacific Region commercial fishermen landed over 1 billion pounds of finfish and shellfish. This represents an 8% decrease from 2010 and a 9% decrease from 2018. Pacific hake (whiting) contributed the highest landings volume in the region, accounting for 69% of total landing weight.

From 2010 to 2019, rockfish (590%), Pacific hake (whiting) (126%), and other shellfish (3%) had the largest increases, while squid (-89%), salmon (-64%), and flatfish (-35%) had the largest decreases. From 2018 to 2019, Pacific hake (whiting) (19%), albacore tuna (9%), and other shellfish (3%) had the largest increases, while squid (-59%), salmon (-41%), and shrimp (-21%) had the largest decreases.

Prices

In 2019, other shellfish ($10.22 per pound) received the highest ex-vessel price in the region. Landings of Pacific hake (whiting) ($0.09 per pound) had the lowest ex-vessel price. From 2010 to 2019, flatfish (125%, 92% in real terms), shrimp (106%, 76% in real terms), and squid (104%, 75% in real terms) had the largest increases, while rockfish (-56%, -63% in real terms) and sablefish (-26%, -36% in real terms) had the largest decreases. From 2018 to 2019, salmon (29%), Pacific hake (whiting) (13%), and flatfish (11%) had the largest increases, while sablefish (-19%) and other shellfish (-2%) had the largest decreases.

RECREATIONAL FISHERIES — PACIFIC REGION

In this report, recreational fishing refers to fishing for leisure rather than to sell fish (commercial fishing) or for subsistence. This recreational fisheries section reports on economic impacts and expenditures, angler participation, fishing trips, and catch of key species/species groups.[6]

[6] Pacific recreational catch and effort estimates are based on multiple data sources. See data sources section.

Key Pacific Region Recreational Species[7]

- Black rockfish
- Bocaccio
- Cabezon
- Canary rockfish
- Lingcod
- Mackerels[8]
- Pacific halibut
- Salmon[9]
- Surfperches[10]
- Tunas[11]

Economic Impacts and Expenditures

The economic contribution of recreational fishing activities in the Pacific Region is based on spending by recreational anglers.[12] Total annual trip expenditures are estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusting by the CPI (consumer price index) to the current year. After 2018, state level durable expenditures and durable impacts will no longer be available due to changes in the availability of angler participation data at the state level.

Four different measures are commonly used to show how angler expenditures affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as recreational fishing. The category includes both the direct sales made by the angler and sales made between businesses and households resulting from that original sale by the angler. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in number of jobs. Note that these categories are not additive. NOAA Fisheries uses a regional impact modeling software, called IMPLAN, to estimate these four types of impacts.

The economic contributions for trip expenditures from recreational fishing in 2019 were estimated using IMPLAN version 3, with base year data from 2017. Models for each state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2019 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the Pacific Region were generated in California (8,413 jobs), followed by Washington (1,783 jobs) and Oregon (715 jobs).The largest sales impacts were observed in California ($1.2 billion), followed by Washington ($245.4 million) and Oregon ($72.2 million). The biggest income impacts were generated in California ($295.1 million), followed by Washington ($81.2 million) and Oregon ($27.4 million). The greatest value-added impacts were in California ($506.7 million), followed by Washington ($146.7 million) and Oregon ($44.2 million).

A large portion of the approximately 727.7 million in trip expenses came from trips in the For-Hire (39.3%) and Private Boat (36.6%) sectors.

Participation

Due to changes in data availability after 2018, angler participation data is not being reported at the state level for 2019.

Fishing Trips

In 2019, recreational fishermen took 4.3 million fishing trips in the Pacific Region.[13] This number represented a 14% decrease from 2010 and a 2% increase from 2018. The largest proportions of trips were taken in the shore mode (51%) and private boat (30%). States with the highest number of recorded trips in the Pacific Region were California (3.4 million trips) and Washington (663,284 trips).

[7] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[8] Bullet mackerel, chub mackerel, frigate mackerel, mackerel family, and Pacific (chub) mackerel.
[9] Chinook salmon, chum salmon, coho salmon, pink salmon, and sockeye salmon.
[10] Barred surfperch, black perch, calico surfperch, dwarf perch, kelp perch, pile perch, pink seaperch, rainbow seaperch, redtail surfperch, rubberlip seaperch, sharpnose seaperch, shiner perch, silver surfperch, spotfin surfperch, striped seaperch, surfperch family, walleye surfperch, and white seaperch.
[11] Albacore and yellowfin tuna.
[12] Trip expenditure estimates were generated from the 2016/2017 National Marine Recreational Fishing Expenditure Survey (Lovell et al., 2020). Durable goods expenditures were generated from the 2019 National Marine Recreational Fishing Expenditure Survey. [For citations: Publications-Recreational Fisheries Economics Research.]
[13] Oregon and Washington Trip estimates are not available for the shore mode.

Harvest and Release Trends[14,15]

Of the Pacific Region's key species and species groups, mackerels (1 million fish), black rockfish (709,984 fish), and salmon (419,525 fish), were most frequently caught by recreational fishermen. The text box below shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2010 to 2019, bocaccio (214%), tunas (200%), and canary rockfish (193%) had the largest increases, while surfperches (-85%) and cabezon (-9%) had the largest decreases. From 2018 to 2019, tunas (251%), bocaccio (25%), and canary rockfish (13%) had the largest increases, while surfperches (-37%), lingcod (-15%), and cabezon (-7%) had the largest decreases.

Harvest and Release: Largest Increases

From 2010:
- Bocaccio (214%)
- Tunas (200%)
- Canary rockfish (193%)

From 2018:
- Tunas (251%)
- Bocaccio (25%)
- Canary rockfish (13%)

Harvest and Release: Largest Decreases

From 2010:
- Surfperches (-85%)
- Cabezon (-9%)

From 2018:
- Surfperches (-37%)
- Lingcod (-15%)
- Cabezon (-7%)

MARINE ECONOMY — PACIFIC REGION

For this report, the marine economy refers to the fishing and marine-related industries in a coastal state. The state marine economy consists of two industry sectors: 1) seafood sales and processing (employer establishments and non-employer firms); and 2) transportation support and marine operations (employer establishments). These sectors include several different marine-related industries.[16]

[14] In the California tables, the following species are included in the species groups (if not listed, species groups are the same as for the entire Pacific Region as listed above): Barracuda, bass and bonito include grouper genus (epinephelus), sandbass genus, kelp bass, spotted sandbass, barred sandbass, giant seabass, Pacific barracuda, and threadfin bass. Bluefin tuna include albacore and yellowfin tuna. California and other scorpionfish include scorpionfish family and California scorpionfish. California halibut and other flatfishes include flatfish order, unidentified flounder or sole, lefteye flounder family, sanddab genus, whiff genus, Pacific sanddab, speckled sanddab, longfin sanddab, California halibut, bigmouth sole, fantail sole, righteye flounder family, arrowtooth flounder, deepsea sole, petrale sole, flathead sole, butter sole, rock sole, dover sole, english sole, starry flounder, c-o sole, curlfin sole, spotted turbot, hornyhead turbot, sand sole, Pacific halibut, and diamond turbot. Mackerels include mackerel family, Pacific (chub) mackerel, chub mackerel, bullet mackerel, and frigate mackerel. Rockfishes include scorpionfish family, rockfish genus, rockfish species, Pacific ocean perch, brown rockfish, redbanded rockfish, silvergray rockfish, copper rockfish, darkblotched rockfish, greenstriped rockfish, widow rockfish, yellowtail rockfish, chilipepper, rosethorn rockfish, quillback rockfish, black rockfish, vermilion rockfish, blue rockfish, china rockfish, tiger rockfish, bocaccio, canary rockfish, redstripe rockfish, yellowmouth rockfish, rosy rockfish, yelloweye rockfish, stripetail rockfish, black and yellow rockfish, kelp rockfish, greenspotted rockfish, starry rockfish, calico rockfish, bronzespotted rockfish, squarespot rockfish, cowcod, mexican rockfish, speckled rockfish, grass rockfish, flag rockfish, bank rockfish, halfbanded rockfish, olive rockfish, treefish, honeycomb rockfish, gopher rockfish, swordspine rockfish, freckled rockfish, pinkrose rockfish, greenblotched rockfish, shortspine thornyhead, deacon rockfish, and deacon/blue rockfish unknown. Salmon include pink salmon, coho salmon, chum salmon, sockeye salmon, and Chinook salmon. Surfperches include surfperch family, kelp perch, shiner perch, striped seaperch, black perch, walleye surfperch, silver surfperch, spotfin surfperch, white seaperch, sharpnose seaperch, pile perch, rubberlip seaperch, redtail surfperch, barred surfperch, calico surfperch, rainbow seaperch, dwarf perch, and pink seaperch. Yellowfin tuna include yellowfin tuna and swordfish.

[15] In the Oregon and Washington tables, the following species are included in the species groups: Albacore tuna include albacore and yellowfin tuna. Greenlings (excluding lingcod) include greenling family, greenling genus, kelp greenling, rock greenling, longspine combfish, shortspine combfish, and painted greenling. Other flatfishes include flatfish order, unidentified flounder or sole, lefteye flounder family, sanddab genus, whiff genus, Pacific sanddab, speckled sanddab, longfin sanddab, California halibut, bigmouth sole, fantail sole, righteye flounder family, arrowtooth flounder, deepsea sole, petrale sole, flathead sole, butter sole, rock sole, dover sole, english sole, starry flounder, c-o sole, curlfin sole, spotted turbot, hornyhead turbot, sand sole, and diamond turbot. Other rockfish include scorpionfish family, rockfish genus, rockfish species, Pacific ocean perch, brown rockfish, redbanded rockfish, silvergray rockfish, copper rockfish, darkblotched rockfish, greenstriped rockfish, widow rockfish, yellowtail rockfish, chilipepper, rosethorn rockfish, quillback rockfish, vermilion rockfish, blue rockfish, china rockfish, tiger rockfish, bocaccio, canary rockfish, redstripe rockfish, yellowmouth rockfish, rosy rockfish, yelloweye rockfish, stripetail rockfish, black and yellow rockfish, kelp rockfish, greenspotted rockfish, starry rockfish, calico rockfish, bronzespotted rockfish, squarespot rockfish, cowcod, mexican rockfish, speckled rockfish, grass rockfish, flag rockfish, bank rockfish, halfbanded rockfish, olive rockfish, treefish, honeycomb rockfish, gopher rockfish, swordspine rockfish, freckled rockfish, pinkrose rockfish, greenblotched rockfish, shortspine thornyhead, deacon rockfish, and deacon/blue rockfish unknown.

[16] Unless otherwise stated, data are from the U.S. Census Bureau. County Business Patterns data and Nonemployer Statistics available at https://www.census.gov. The Census data are only available through 2018. GDP and Compensation of Employees data was obtained from the U.S. Bureau of Economic Analysis, 'Table SAGDP1 Gross Domestic Product' and 'Table SA6N Compensation of Employees by NAICS Industry,' respectively. Percentage changes in inflation-adjusted (real) dollar terms are calculated using the annual Gross Domestic Product implicit price deflator, which was obtained from the Federal Reserve Bank of St. Louis (https://fred.stlouisfed.org/series/USAGDPDEFAISMEI).

The Commercial Fishing Location Quotient (CFLQ) measures the size of the commercial fishing sector in a state's economy relative to the size of the commercial fishing sector in the national economy.[17] The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The U.S. CFLQ is 1. If a state CFLQ is less than 1, then less commercial fishing occurs in this state than the national average. If a state CFLQ is greater than 1, then more commercial fishing occurs in this state than the national average.

The Bureau of Labor Statistics suppressed the CFLQ value for Oregon and Washington for 2018. California had a CFLQ value of 0.52.

In 2018, 1.3 million employer establishments operated throughout the entire Pacific Region (including marine and non-marine related establishments). These establishments employed 19.7 million workers and had a total annual payroll of $1.3 trillion. The combined gross state product of California, Oregon, and Washington was approximately $3.7 trillion in 2018.

Seafood Sales and Processing

Seafood Product Preparation and Packaging: In 2018, the Pacific Region had 251 non-employer firms in the seafood product preparation and packaging sector (a 5% increase from 2010). Annual receipts for these firms totaled $20.6 million (a 24% increase in real terms from 2010). There were 136 employer firms in the seafood product preparation and packaging sector (a 16% decrease from 2010). The greatest number of establishments in this sector was in California (221), followed by Washington (133) and Oregon (33).

Retail Seafood Sales: In 2018, there were 273 non-employer firms in seafood retail sales in the Pacific Region (a 10% increase from 2010). Annual receipts for these firms totaled $23.1 million (a 9% decrease in real terms from 2010). There were 200 employer firms in the seafood retail sector (a 12% decrease from 2010). The greatest number of establishments in this sector was in California (385), followed by Washington (58) and Oregon (30).

Wholesale Seafood Sales: There were 442 employer firms in the seafood wholesale sector in the Pacific Region in 2018 (remains unchanged from 2010). The greatest number of establishments in this sector was in California (314), followed by Washington (108) and Oregon (20).

Transportation Support and Marine Operations

Data for the transportation support and marine operations sectors of the Pacific Region's economy were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the regional economy. For example, in 2018, the ship and boat building sector in the Pacific Region accounted for $920 million in payroll.

[17] U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

Tables | Pacific Region

2019 Economic Impacts of the Pacific Seafood Industry (jobs, thousands of dollars)[1]

	Landings Revenue	With Imports				Without Imports			
		#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
California	163,986	135,340	26,881,300	5,702,759	9,514,880	10,172	898,257	335,195	461,989
Oregon	165,020	13,408	1,060,827	371,817	521,509	11,946	742,557	306,700	411,935
Washington	351,232	63,422	9,242,566	2,460,734	3,752,627	22,903	1,774,416	737,184	997,672

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	589,333	747,612	726,833	855,713	802,066	640,998	768,491	775,542	777,416	715,261
Finfish	185,943	245,002	230,929	262,283	248,307	182,814	207,060	232,695	203,140	204,170
Shellfish and Other	403,390	502,610	495,904	593,430	553,759	458,183	561,431	542,847	574,275	511,091
Key Species	-	-	-	-	-	-	-	-	-	-
Albacore tuna	28,778	43,347	45,851	41,930	32,792	29,374	37,657	34,812	24,929	27,838
Crab	134,211	182,318	177,866	250,431	199,104	105,290	230,185	209,323	238,516	207,403
Flatfish	14,955	16,921	17,438	20,782	19,422	20,626	22,600	24,464	21,862	21,810
Other shellfish	99,974	119,727	117,687	127,414	125,272	139,850	143,085	146,578	150,243	151,951
Pacific hake (whiting)	25,454	56,739	48,635	64,877	64,111	25,206	46,843	60,438	48,307	64,648
Rockfish	4,585	5,230	5,714	5,552	5,950	7,058	5,647	10,247	12,682	13,796
Sablefish	35,879	44,851	28,334	19,423	24,489	28,680	31,632	34,011	25,164	20,685
Salmon	50,421	53,573	47,865	76,760	70,590	47,226	40,135	42,307	45,722	34,513
Shrimp	20,293	40,285	40,073	42,193	60,825	87,280	48,083	29,691	49,122	40,899
Squid	71,169	66,520	63,922	73,732	72,915	24,466	40,264	68,704	38,841	16,373

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	1,101,928	1,200,351	1,097,077	1,278,389	1,227,684	771,849	965,589	1,196,998	1,108,821	1,011,521
Finfish	591,056	731,187	711,818	838,605	805,863	517,105	708,984	926,495	759,871	845,896
Shellfish and Other	510,871	469,164	385,258	439,784	421,821	254,745	256,605	270,503	348,950	165,625
Key Species	-	-	-	-	-	-	-	-	-	-
Albacore tuna	25,520	24,358	30,722	28,511	27,315	24,899	23,009	16,452	15,323	16,722
Crab	62,228	66,682	53,280	87,594	52,177	22,795	66,568	60,717	67,923	57,290
Flatfish	35,044	27,347	26,871	30,493	25,651	26,291	28,567	30,666	25,293	22,762
Other shellfish	14,456	14,556	14,590	14,213	14,617	15,657	13,891	14,206	14,454	14,871
Pacific hake (whiting)	308,885	508,267	352,393	514,495	581,576	339,488	577,353	778,901	586,773	697,509
Rockfish	5,132	5,679	6,588	6,277	7,075	8,861	7,242	23,400	35,382	35,394
Sablefish	15,072	14,161	11,687	9,126	9,757	11,395	11,923	12,214	11,588	11,701
Salmon	32,228	42,222	24,709	57,208	37,034	25,980	18,902	22,597	19,868	11,663
Shrimp	42,311	66,739	66,406	71,451	93,380	105,088	55,257	35,776	52,269	41,453
Squid	288,727	267,936	215,521	230,230	229,553	81,234	84,594	137,636	80,210	32,508

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albacore tuna	1.13	1.78	1.49	1.47	1.20	1.18	1.64	2.12	1.63	1.66
Crab	2.16	2.73	3.34	2.86	3.82	4.62	3.46	3.45	3.51	3.62
Flatfish	0.43	0.62	0.65	0.68	0.76	0.78	0.79	0.80	0.86	0.96
Other shellfish	6.92	8.23	8.07	8.96	8.57	8.93	10.30	10.32	10.39	10.22
Pacific hake (whiting)	0.08	0.11	0.14	0.13	0.11	0.07	0.08	0.08	0.08	0.09
Rockfish	0.89	0.92	0.87	0.88	0.84	0.80	0.78	0.44	0.36	0.39
Sablefish	2.38	3.17	2.42	2.13	2.51	2.52	2.65	2.78	2.17	1.77
Salmon	1.56	1.27	1.94	1.34	1.91	1.82	2.12	1.87	2.30	2.96
Shrimp	0.48	0.60	0.60	0.59	0.65	0.83	0.87	0.83	0.94	0.99
Squid	0.25	0.25	0.30	0.32	0.32	0.30	0.48	0.50	0.48	0.50

[1] The Pacific Region includes landings by Pacific at-sea processors. However, revenue from these landings are not included in the state tables.

2019 Economic Impacts of the Pacific Recreational Fishing Expenditures (thousands of dollars, trips)

	Trips	#Jobs	Sales	Income	Value Added
California	3,367	8,413	1,153,869	295,059	506,710
Oregon	238	715	72,185	27,429	44,227
Washington	663	1,783	245,362	81,171	146,660

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)[1]

Fishing Mode	Trip Expenditures
For-Hire	286,058
Private Boat	266,552
Shore	175,128
Total	727,738

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	727,738

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	1,297	1,193	1,056	1,382	1,307	1,236	849	966	827	NA
Non-Coastal	371	382	346	384	429	426	332	350	330	NA
Total Anglers	1,668	1,575	1,402	1,766	1,736	1,662	1,181	1,316	1,157	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	451	675	683	747	1,079	874	753	779	774	789
Private Boat	1,460	1,566	1,705	1,803	1,724	1,609	1,075	1,672	1,135	1,292
Shore	3,024	3,045	4,227	4,113	3,606	2,385	2,377	2,373	2,264	2,187
Total Trips	4,936	5,286	6,615	6,663	6,409	4,869	4,205	4,824	4,173	4,268

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Black rockfish	H	658	597	721	1,039	1,005	972	893	697	578	610
	R	75	66	65	114	115	132	105	142	110	100
Bocaccio	H	63	166	211	188	188	137	82	141	159	199
	R	1	< 1	2	13	7	1	2	< 1	2	2
Cabezon	H	26	32	33	28	33	35	34	28	21	21
	R	18	22	33	33	23	19	20	22	22	19
Canary rockfish	H	32	52	50	44	57	68	58	144	121	139
	R	22	32	36	56	59	87	68	36	18	17
Lingcod	H	86	157	194	256	290	354	330	288	243	203
	R	114	183	201	187	182	176	191	130	110	95
Mackerels	H	1,177	1,111	836	583	1,018	1,685	1,008	1,420	1,189	687
	R	581	532	409	333	728	533	592	773	636	361
Pacific halibut	H	18	19	21	23	23	20	21	22	21	23
	R	4	4	5	5	5	5	5	4	4	4
Salmon	H	212	248	328	368	657	360	135	239	180	245
	R	110	151	119	150	194	115	50	77	101	175
Surfperches	H	470	824	1,027	809	993	1,226	821	875	89	54
	R	223	714	984	819	1,002	912	521	702	80	53
Tunas	H	75	46	118	79	123	115	85	57	64	225
	R	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

[1] NA = not available.
[2] Oregon and Washington trip estimates are not available for the shore mode.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

Tables | California

2019 Economic Impacts of the California Seafood Industry (thousands of dollars)[1]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	135,340	26,881,300	5,702,759	9,514,880	10,172	898,257	335,195	461,989
Commercial Harvesters	2,916	327,474	110,864	163,112	2,916	327,474	110,864	163,112
Seafood Processors & Dealers	4,510	548,540	203,403	269,896	1,231	149,684	55,504	73,649
Importers	62,773	20,536,848	3,291,422	6,260,531	0	0	0	0
Seafood Wholesalers & Distributors	12,339	2,068,821	671,023	937,465	416	69,737	22,619	31,601
Retail	52,803	3,399,617	1,426,048	1,883,877	5,609	351,362	146,208	193,628

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	175,955	201,257	232,204	257,039	235,339	143,051	205,046	211,953	198,126	163,986
Finfish	35,744	46,257	46,025	53,885	49,786	44,511	39,662	46,786	45,557	52,389
Shellfish and Other	140,211	155,000	186,179	203,155	185,553	98,540	165,384	165,168	152,568	111,597
Key Species	-	-	-	-	-	-	-	-	-	-
Crab	42,864	53,638	88,095	92,705	70,448	20,324	85,286	49,209	66,108	54,458
Pacific sardine	4,306	4,623	4,321	1,502	2,003	343	96	61	77	211
Rockfish	2,560	2,624	2,541	2,688	2,718	3,173	2,426	3,267	3,659	4,209
Sablefish	11,491	15,122	8,990	7,064	9,425	8,909	8,791	9,303	6,715	6,342
Salmon	1,215	5,095	12,887	22,947	12,126	8,115	5,213	4,792	7,678	16,480
Sea urchins	7,397	8,206	9,008	10,771	9,698	7,325	7,283	6,436	5,724	5,162
Shrimp	3,666	8,537	8,338	9,377	11,752	14,048	10,808	9,790	12,409	9,669
Spiny lobster	11,333	12,911	13,698	13,629	17,982	15,740	13,594	13,177	14,143	11,334
Squid	71,163	66,519	63,920	73,730	72,903	24,453	39,122	68,703	35,768	13,487
Swordfish	2,203	3,319	2,090	2,701	3,067	3,641	3,763	3,948	3,282	2,530

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	438,873	408,584	354,542	365,710	361,285	187,937	168,704	213,340	181,481	112,496
Finfish	108,547	92,452	89,087	75,651	85,414	79,407	43,686	47,975	71,783	57,971
Shellfish and Other	330,326	316,131	265,454	290,059	275,871	108,531	125,018	165,365	109,698	54,525
Key Species	-	-	-	-	-	-	-	-	-	-
Crab	23,262	22,157	27,548	33,441	20,837	5,361	28,013	14,176	20,293	17,064
Pacific sardine	74,228	61,098	50,803	15,594	17,133	3,751	954	953	720	4,095
Rockfish	1,750	1,478	1,472	1,547	1,421	1,408	946	2,166	3,054	3,721
Sablefish	5,508	5,657	3,928	3,311	4,132	4,068	3,853	3,930	3,271	3,183
Salmon	261	1,139	2,892	4,353	2,577	1,359	707	571	1,065	2,964
Sea urchins	11,229	11,573	12,124	13,967	12,507	8,496	5,889	4,204	3,245	2,390
Shrimp	623	8,223	7,208	9,527	9,920	9,524	4,818	5,210	7,082	4,298
Spiny lobster	715	752	877	756	943	768	666	700	872	825
Squid	288,486	267,895	215,470	230,189	229,485	81,144	81,773	137,594	73,145	27,228
Swordfish	816	1,344	888	1,175	1,265	1,376	1,387	1,511	1,357	929

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Crab	1.84	2.42	3.20	2.77	3.38	3.79	3.04	3.47	3.26	3.19
Pacific sardine	0.06	0.08	0.09	0.10	0.12	0.09	0.10	0.06	0.11	0.05
Rockfish	1.46	1.77	1.73	1.74	1.91	2.25	2.56	1.51	1.20	1.13
Sablefish	2.09	2.67	2.29	2.13	2.28	2.19	2.28	2.37	2.05	1.99
Salmon	4.66	4.47	4.46	5.27	4.71	5.97	7.37	8.39	7.21	5.56
Sea urchins	0.66	0.71	0.74	0.77	0.78	0.86	1.24	1.53	1.76	2.16
Shrimp	5.89	1.04	1.16	0.98	1.18	1.48	2.24	1.88	1.75	2.25
Spiny lobster	15.84	17.17	15.62	18.02	19.06	20.49	20.40	18.84	16.22	13.74
Squid	0.25	0.25	0.30	0.32	0.32	0.30	0.48	0.50	0.49	0.50
Swordfish	2.70	2.47	2.35	2.30	2.43	2.65	2.71	2.61	2.42	2.72

[1] The Pacific Region includes landings by Pacific at-sea processors. However, revenue from these landings are not included in the state tables.

2019 Economic Impacts of California Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	5,545	734,658	149,103	238,532
	Private Boat	886	144,552	47,733	90,733
	Shore	1,983	274,659	98,223	177,445
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		8,413	1,153,869	295,059	506,710

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	225,052
Private Boat	96,258
Shore	175,128
Total	496,437

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	496,437

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	992	863	722	1,024	964	893	591	576	551	NA
Non-Coastal	220	230	190	222	264	263	182	189	174	NA
Out-of-State	221	183	215	87	94	121	96	77	84	NA
Total Anglers	1,433	1,276	1,127	1,333	1,322	1,277	869	842	809	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	334	554	557	613	929	727	632	636	644	653
Private Boat	690	683	800	786	785	676	522	533	497	527
Shore	3,024	3,045	4,227	4,113	3,606	2,385	2,377	2,373	2,264	2,187
Total Trips	4,048	4,282	5,585	5,512	5,320	3,787	3,531	3,542	3,405	3,367

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Barracuda, bass and bonito[5]	H	311	423	353	143	218	185	173	156	166	120
	R	972	744	789	1,166	1,614	1,172	1,623	1,464	1,199	1,015
Bluefin tuna	H	6	< 1	4	3	< 1	< 1	< 1	11	13	35
	R	< 1	< 1	< 1	< 1	0	< 1	< 1	< 1	< 1	< 1
California and other scorpionfish	H	133	198	256	241	268	171	150	181	230	261
	R	147	166	217	260	247	190	191	279	359	297
California halibut and other flatfishes	H	351	541	490	640	921	333	289	295	304	224
	R	231	175	248	404	294	193	149	293	210	87
Lingcod	H	32	85	108	153	201	256	234	178	131	103
	R	73	129	156	145	155	138	148	99	77	62
Mackerels	H	1,177	1,111	835	582	1,017	1,684	1,008	1,419	1,188	686
	R	581	532	409	332	728	533	592	773	636	361
Rockfishes[5]	H	1,505	2,181	2,615	3,004	3,072	2,829	2,520	2,688	2,567	3,134
	R	236	340	366	547	492	484	440	481	437	430
Salmon[6]	H	15	50	124	116	75	38	38	62	101	89
	R	0	0	0	0	0	0	0	0	0	0
Surfperches	H	470	823	1,027	809	992	1,226	817	871	89	54
	R	223	714	984	819	1,002	912	520	700	80	53
Yellowfin tuna	H	1	1	6	4	108	156	28	15	20	42
	R	< 1	< 1	< 1	< 1	< 1	4	< 1	< 1	< 1	< 1

[1] NA = not available.
[2] Pacific recreational catch and effort estimates are based on multiple data sources. See data sources section.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[5] This species may not be equivalent to species with similar names listed in the commercial tables.
[6] Salmon harvest estimates exclude release mortality.

2018 California State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
3,453,769 (13%)	954,632 (12.1%)	15,223,664 (11.6%)	1,021 (14.4%)	1,540 (14.1%)	2,895	0.52

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	184	187	151	157	164	169	174	202	181
	Receipts	9,695	9,788	9,283	9,866	11,112	12,978	14,725	13,419	13,928
Seafood sales, retail	Firms	203	209	236	218	227	221	228	230	233
	Receipts	19,021	18,006	18,238	18,581	17,055	17,896	19,375	18,015	19,892

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	48	48	41	44	53	48	41	39	40
	Employees	1,820	1,842	1,668	1,871	1,799	1,661	1,549	1,596	1,729
	Payroll	62,480	60,411	52,977	57,603	60,762	59,829	64,374	61,611	71,039
Seafood sales, wholesale	Establishments	314	404	275	320	341	349	371	320	314
	Employees	3,223	3,505	3,441	3,671	3,912	4,170	4,250	4,573	4,575
	Payroll	137,810	149,302	173,959	181,698	175,927	201,903	212,079	224,800	226,906
Seafood sales, retail	Establishments	158	157	149	155	167	170	171	153	152
	Employees	985	1,088	1,043	1,119	1,124	1,208	1,272	998	941
	Payroll	22,718	25,168	24,221	26,702	28,044	28,437	31,722	24,860	25,657

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	117	108	120	113	108	103	104	97	94
	Employees	9,720	9,165	12,681	12,651	9,814	11,379	11,236	10,806	8,254
	Payroll	448,338	434,449	544,819	537,438	534,787	583,717	548,198	551,754	564,180
Deep Sea Freight Transportation	Establishments	54	51	45	34	43	56	45	38	40
	Employees	2,562	2,464	2,431	2,073	2,467	2,554	2,399	1,862	1,546
	Payroll	236,235	256,962	236,423	218,054	187,383	235,546	230,946	186,036	152,607
Deep Sea Passenger Transportation	Establishments	3	2	2	4	5	6	7	8	7
	Employees	ds	ds	ds	ds	ds	ds	ds	0	2,997
	Payroll	ds	ds	ds	ds	ds	ds	ds	0	181,389
Coastal and Great Lakes Freight Transportation	Establishments	25	21	22	24	30	34	32	35	27
	Employees	554	395	ds	ds	ds	851	759	620	689
	Payroll	30,431	24,708	ds	ds	ds	70,978	62,151	55,847	70,802
Port and Harbor Operations	Establishments	21	19	59	31	33	30	30	19	23
	Employees	435	508	ds	651	535	570	742	574	682
	Payroll	37,560	41,688	ds	52,401	33,599	40,887	46,859	37,533	46,548
Marine Cargo Handling	Establishments	63	71	38	64	64	67	70	61	59
	Employees	18,449	18,812	18,759	ds	ds	18,859	20,694	20,829	20,763
	Payroll	1,273,268	1,333,805	1,351,874	ds	ds	1,761,284	1,898,249	2,047,600	2,156,287
Navigational Services to Shipping	Establishments	41	45	35	36	37	38	37	43	43
	Employees	765	760	800	805	634	587	1,221	714	679
	Payroll	58,899	62,065	61,166	67,665	59,927	60,228	68,514	73,082	78,051
Marinas	Establishments	270	269	251	250	249	258	243	227	221
	Employees	2,390	2,401	2,237	2,199	2,332	2,439	2,432	2,387	2,457
	Payroll	80,631	82,958	71,777	72,737	79,840	84,427	86,510	91,703	92,541

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.

Tables | Oregon

2019 Economic Impacts of the Oregon Seafood Industry (thousands of dollars)[1]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	13,408	1,060,827	371,817	521,509	11,946	742,557	306,700	411,935
Commercial Harvesters	4,253	271,691	112,495	158,345	4,253	271,691	112,495	158,345
Seafood Processors & Dealers	1,529	154,010	59,149	77,282	1,257	126,622	48,631	63,539
Importers	780	255,285	40,914	77,822	0	0	0	0
Seafood Wholesalers & Distributors	512	72,619	24,635	33,041	360	51,071	17,325	23,237
Retail	6,334	307,222	134,624	175,018	6,076	293,172	128,250	166,813

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	102,882	146,485	126,561	177,423	156,307	116,072	148,564	147,112	174,694	165,020
Finfish	57,188	74,984	70,707	78,662	76,372	58,988	62,688	69,743	64,655	66,274
Shellfish and Other	45,694	71,501	55,854	98,761	79,935	57,084	85,876	77,369	110,039	98,746
Key Species	-	-	-	-	-	-	-	-	-	-
Albacore tuna	12,424	18,766	15,168	16,085	11,023	9,221	12,478	10,777	9,716	10,856
Crab	32,748	44,690	29,172	71,208	48,147	12,107	55,731	58,723	74,522	67,930
Flatfish	7,425	7,920	8,276	10,837	9,788	11,039	12,209	11,702	10,475	9,721
Pacific hake (whiting)	5,414	16,518	14,611	20,405	18,274	7,146	8,694	16,385	16,435	21,719
Pacific sardine	5,252	3,192	8,979	6,299	3,522	813	0	0	3	4
Rockfish	1,113	1,694	1,819	2,052	2,518	3,035	2,679	6,338	7,757	7,814
Sablefish	15,069	17,351	11,530	7,595	8,076	12,767	15,062	15,547	11,916	9,422
Salmon	7,677	6,726	6,943	12,417	20,075	11,842	8,265	5,531	5,675	4,153
Shrimp	11,006	24,607	24,749	24,153	29,367	40,413	25,093	12,745	26,909	19,940
Sole	6,289	6,314	6,808	9,329	8,252	9,396	10,539	10,192	9,236	8,382

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	216,485	285,670	306,779	349,166	300,160	203,610	226,346	302,346	312,820	334,942
Finfish	166,024	216,975	246,185	271,639	233,546	144,038	158,314	257,334	244,320	280,483
Shellfish and Other	50,461	68,695	60,594	77,527	66,614	59,572	68,032	45,012	68,501	54,458
Key Species	-	-	-	-	-	-	-	-	-	-
Albacore tuna	10,702	9,682	9,938	10,209	8,769	7,585	7,235	4,732	5,809	6,571
Crab	15,869	17,260	8,691	26,034	11,918	2,294	15,714	19,015	23,135	19,035
Flatfish	23,003	16,691	16,029	19,708	16,731	17,622	19,851	19,319	16,238	14,594
Pacific hake (whiting)	69,530	151,464	107,652	167,499	168,226	94,907	113,035	201,499	185,554	222,201
Pacific sardine	45,971	24,302	94,062	57,956	17,171	4,699	9	3	21	28
Rockfish	1,485	2,395	2,531	3,096	4,199	5,643	4,969	18,596	25,550	24,412
Sablefish	6,301	5,081	4,745	3,844	3,297	5,001	5,526	5,556	5,678	5,837
Salmon	2,748	2,410	1,922	3,503	6,379	3,142	1,821	1,185	957	995
Shrimp	31,528	48,314	49,150	47,629	52,010	53,516	35,528	23,061	35,872	26,852
Sole	17,548	12,548	12,290	15,641	13,752	14,578	17,272	16,869	14,731	13,459

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albacore tuna	1.16	1.94	1.53	1.58	1.26	1.22	1.72	2.28	1.67	1.65
Crab	2.06	2.59	3.36	2.74	4.04	5.28	3.55	3.09	3.22	3.57
Flatfish	0.32	0.47	0.52	0.55	0.59	0.63	0.62	0.61	0.65	0.67
Pacific hake (whiting)	0.08	0.11	0.14	0.12	0.11	0.08	0.08	0.08	0.09	0.10
Pacific sardine	0.11	0.13	0.10	0.11	0.21	0.17	0.04	0.09	0.15	0.14
Rockfish	0.75	0.71	0.72	0.66	0.60	0.54	0.54	0.34	0.30	0.32
Sablefish	2.39	3.42	2.43	1.98	2.45	2.55	2.73	2.80	2.10	1.61
Salmon	2.79	2.79	3.61	3.54	3.15	3.77	4.54	4.67	5.93	4.18
Shrimp	0.35	0.51	0.50	0.51	0.56	0.76	0.71	0.55	0.75	0.74
Sole	0.36	0.50	0.55	0.60	0.60	0.64	0.61	0.60	0.63	0.62

[1] The Pacific Region includes landings by Pacific at-sea processors. However, revenue from these landings are not included in the state tables.

2019 Economic Impacts of Oregon Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	395	38,215	13,437	22,634
	Private Boat	320	33,971	13,993	21,593
	Shore	NA	NA	NA	NA
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		715	72,185	27,429	44,227

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	24,821
Private Boat	29,959
Shore	NA
Total	54,780

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	54,780

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	83	82	86	90	92	90	86	87	90	NA
Non-Coastal	126	125	129	134	137	135	129	130	134	NA
Out-of-State	15	15	15	16	16	16	15	15	16	NA
Total Anglers	224	222	230	240	245	241	230	232	240	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	45	45	51	58	61	65	57	59	64	62
Private Boat	119	113	135	157	173	150	122	127	146	176
Shore	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Trips	164	159	187	214	235	214	179	187	210	238

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albacore tuna	H	38	29	63	22	48	35	37	16	26	103
	R	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Black rockfish	H	268	182	194	285	318	421	387	393	260	294
	R	23	15	13	19	21	36	27	53	33	35
Cabezon	H	7	6	5	4	3	3	4	8	5	6
	R	4	4	5	6	4	4	4	6	12	13
Chinook salmon	H	10	10	38	60	37	19	8	9	5	7
	R	2	9	8	9	5	2	1	2	6	5
Coho salmon	H	18	19	16	15	100	28	8	21	26	66
	R	22	22	17	23	69	27	6	20	42	79
Greenlings (excluding lingcod)	H	9	11	10	12	5	5	4	4	4	4
	R	4	4	4	4	2	3	1	1	2	2
Lingcod	H	29	36	49	69	53	64	49	63	70	51
	R	25	31	28	32	18	28	29	26	27	25
Other flatfishes	H	1	< 1	1	2	1	3	3	17	4	4
	R	< 1	< 1	< 1	1	< 1	2	2	2	1	1
Other rockfish	H	63	69	84	77	59	96	60	110	130	126
	R	21	19	20	23	22	38	25	36	27	32
Pacific halibut	H	9	10	11	13	11	11	11	12	11	9
	R	2	2	3	3	2	2	2	2	2	1

[1] NA = not available.
[2] Pacific recreational catch and effort estimates are based on multiple data sources. See data sources section.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Oregon State Economy (% of national total)[1]

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[2]
302,653 (1.1%)	118,586 (1.5%)	1,629,432 (1.2%)	83.3 (1.2%)	133 (1.2%)	237	ds

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	15	16	14	11	11	12	14	12	14
	Receipts	510	467	346	319	484	1,088	1,776	699	1,583
Seafood sales, retail	Firms	15	16	11	ds	16	15	14	11	11
	Receipts	1,907	1,896	1,600	ds	1,036	841	1,379	1,317	1,196

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	21	22	18	19	20	20	20	18	19
	Employees	806	805	934	907	980	916	989	1,149	1,216
	Payroll	27,007	32,438	31,970	37,265	39,290	41,181	42,832	45,695	50,114
Seafood sales, wholesale	Establishments	22	27	21	19	22	24	27	20	20
	Employees	ds	ds	180	189	192	196	187	194	191
	Payroll	ds	ds	7,602	8,065	8,601	9,121	9,892	10,118	9,884
Seafood sales, retail	Establishments	21	20	18	20	23	25	23	22	19
	Employees	162	163	126	147	170	181	174	147	157
	Payroll	3,651	3,613	2,851	4,238	4,440	4,951	5,239	4,420	4,961

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	34	34	33	32	30	29	26	27	28
	Employees	980	1,179	1,504	1,406	ds	1,506	1,278	1,153	936
	Payroll	42,004	55,068	77,718	79,913	ds	94,956	83,079	88,198	72,713
Deep Sea Freight Transportation	Establishments	3	3	3	3	2	3	2	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	8	8	8	7	8	8	12	11	10
	Employees	ds	ds	ds	ds	ds	437	506	501	378
	Payroll	ds	ds	ds	ds	ds	40,746	47,896	47,693	43,148
Port and Harbor Operations	Establishments	3	3	10	5	5	5	5	3	5
	Employees	ds	ds	90	ds	ds	49	45	29	31
	Payroll	ds	ds	6,512	ds	ds	3,437	2,686	2,061	2,963
Marine Cargo Handling	Establishments	12	13	5	8	7	7	6	10	10
	Employees	ds	ds	ds	ds	ds	ds	ds	0	1,284
	Payroll	ds	ds	ds	ds	ds	ds	ds	0	98,357
Navigational Services to Shipping	Establishments	18	18	20	15	15	15	17	17	18
	Employees	144	152	176	81	67	74	69	109	206
	Payroll	9,577	9,592	12,219	6,534	3,958	3,998	4,789	5,566	17,660
Marinas	Establishments	30	33	32	34	34	36	35	31	33
	Employees	102	102	119	104	113	119	137	137	134
	Payroll	2,290	2,382	3,034	3,148	3,584	3,643	3,550	4,235	4,281

[1] ds = Data are suppressed.
[2] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[3] NA = Not applicable.

Tables | Washington

2019 Economic Impacts of the Washington Seafood Industry (thousands of dollars)[1]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	63,422	9,242,566	2,460,734	3,752,627	22,903	1,774,416	737,184	997,672
Commercial Harvesters	7,104	682,185	295,807	414,506	7,104	682,185	295,807	414,506
Seafood Processors & Dealers	16,953	1,910,943	717,722	949,795	2,625	295,924	111,145	147,083
Importers	15,569	5,093,554	816,339	1,552,738	0	0	0	0
Seafood Wholesalers & Distributors	2,716	413,900	138,673	189,196	866	131,914	44,196	60,299
Retail	21,079	1,141,986	492,193	646,392	12,308	664,394	286,036	375,785

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	290,870	366,839	339,927	384,251	370,015	366,379	381,391	380,476	372,724	351,232
Finfish	73,384	90,730	86,056	92,737	81,744	63,819	71,220	80,166	61,055	50,484
Shellfish and Other	217,485	276,108	253,871	291,514	288,271	302,560	310,171	300,310	311,668	300,748
Key Species	-	-	-	-	-	-	-	-	-	-
Albacore tuna	14,575	22,253	28,464	24,745	21,177	19,961	24,716	23,494	14,749	15,799
Clams	433	327	263	579	560	114	NA	NA	474	353
Crab	58,599	83,991	60,599	86,517	80,509	72,858	89,168	101,391	97,886	85,015
Pacific hake (whiting)	NA	7,190	5,882	7,473	5,431	2,563	4,659	8,052	NA	7,904
Pacific halibut	1,551	2,333	2,665	2,295	2,531	2,624	3,210	3,303	3,095	3,696
Rockfish	912	912	1,355	812	713	850	542	642	1,265	1,773
Sablefish	9,320	12,378	7,813	4,764	6,988	7,003	7,779	9,161	6,533	4,922
Salmon	41,530	41,753	28,035	41,396	38,388	27,270	26,657	31,984	32,368	13,880
Shrimp	5,622	7,140	6,986	8,664	19,706	32,820	12,182	7,156	9,805	11,291
Sole	846	1,290	1,471	1,753	976	1,037	1,227	1,496	1,572	1,321

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	212,565	225,322	229,679	276,443	202,559	168,706	188,307	234,958	213,309	193,322
Finfish	82,481	140,985	170,468	204,246	123,223	82,064	124,752	174,833	42,559	136,680
Shellfish and Other	130,084	84,337	59,210	72,198	79,336	86,641	63,555	60,126	170,750	56,642
Key Species	-	-	-	-	-	-	-	-	-	-
Albacore tuna	13,181	13,259	19,353	17,588	18,088	17,196	15,515	11,453	9,176	9,453
Clams	118	82	59	109	124	30	NA	NA	84	61
Crab	23,098	27,264	17,041	28,120	19,423	15,140	22,841	27,527	24,495	21,191
Pacific hake (whiting)	NA	76,017	38,656	59,918	49,655	32,977	82,078	131,038	NA	104,541
Pacific halibut	416	527	615	546	538	557	656	768	896	1,114
Rockfish	1,897	1,806	2,584	1,633	1,455	1,810	1,327	2,638	6,777	7,261
Sablefish	3,263	3,423	3,014	1,970	2,328	2,326	2,544	2,728	2,638	2,681
Salmon	29,220	38,673	19,895	49,352	28,078	21,479	16,374	20,841	17,847	7,705
Shrimp	10,160	10,202	10,048	14,295	31,450	42,048	14,911	7,505	9,314	10,303
Sole	2,375	2,164	2,384	2,643	1,399	1,458	1,863	2,295	2,066	1,633

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albacore tuna	1.11	1.68	1.47	1.41	1.17	1.16	1.59	2.05	1.61	1.67
Clams	3.68	4.01	4.47	5.31	4.53	3.84	NA	NA	5.64	5.83
Crab	2.54	3.08	3.56	3.08	4.15	4.81	3.90	3.68	4.00	4.01
Pacific hake (whiting)	NA	0.09	0.15	0.12	0.11	0.08	0.06	0.06	NA	0.08
Pacific halibut	3.73	4.43	4.34	4.20	4.70	4.71	4.90	4.30	3.46	3.32
Rockfish	0.48	0.51	0.52	0.50	0.49	0.47	0.41	0.24	0.19	0.24
Sablefish	2.86	3.62	2.59	2.42	3.00	3.01	3.06	3.36	2.48	1.84
Salmon	1.42	1.08	1.41	0.84	1.37	1.27	1.63	1.53	1.81	1.80
Shrimp	0.55	0.70	0.70	0.61	0.63	0.78	0.82	0.95	1.05	1.10
Sole	0.36	0.60	0.62	0.66	0.70	0.71	0.66	0.65	0.76	0.81

[1] The Pacific Region includes landings by Pacific at-sea processors. However, revenue from these landings are not included in the state tables.
[2] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of Washington Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	541	58,247	20,081	34,684
	Private Boat	1,242	187,115	61,090	111,976
	Shore	NA	NA	NA	NA
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		1,783	245,362	81,171	146,660

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	36,185
Private Boat	140,335
Shore	NA
Total	176,521

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	176,521

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	222	248	248	268	251	253	172	303	186	NA
Non-Coastal	25	27	27	28	28	28	21	31	22	NA
Out-of-State	19	21	21	22	22	22	17	24	17	NA
Total Anglers	266	296	296	318	301	303	210	358	225	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	72	76	74	76	88	83	64	83	65	74
Private Boat	652	770	770	860	766	784	431	1,012	493	589
Shore	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Trips	724	846	844	936	854	867	495	1,095	558	663

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albacore tuna	H	31	15	50	54	75	79	47	30	25	88
	R	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Black rockfish	H	161	177	226	238	259	288	298	194	216	202
	R	17	13	14	14	19	15	16	19	15	13
Cabezon	H	3	3	3	2	2	2	2	2	2	4
	R	< 1	< 1	< 1	< 1	1	< 1	< 1	1	1	2
Chinook salmon	H	75	62	71	64	87	88	37	46	13	12
	R	32	44	36	39	34	20	18	12	10	9
Coho salmon	H	39	41	32	47	136	80	19	43	36	69
	R	54	66	59	76	85	60	25	42	42	77
Greenlings (excluding lingcod)	H	4	3	3	4	3	2	3	2	2	2
	R	3	2	2	3	3	2	2	2	1	2
Lingcod	H	25	37	38	34	37	34	48	46	41	49
	R	17	24	18	11	9	10	13	5	6	8
Other flatfishes	H	< 1	< 1	1	2	3	3	8	5	6	6
	R	1	< 1	1	2	2	1	< 1	< 1	< 1	< 1
Other rockfish	H	47	52	28	30	39	34	46	53	41	66
	R	6	6	5	7	8	8	9	7	8	10
Pacific halibut	H	7	8	8	8	9	8	8	10	11	13
	R	2	2	2	2	3	3	3	2	2	3

[1] NA = not available.
[2] Pacific recreational catch and effort estimates are based on multiple data sources. See data sources section.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Washington State Economy (% of national total)[1]

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[2]
491,908 (1.9%)	193,817 (2.4%)	2,847,481 (2.2%)	183 (2.6%)	291 (2.7%)	564	ds

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	39	37	42	42	51	59	65	48	56
	Receipts	4,228	3,859	4,377	4,094	5,270	3,555	4,697	3,297	5,096
Seafood sales, retail	Firms	30	34	42	41	36	35	33	36	29
	Receipts	1,273	2,370	1,871	3,017	2,559	2,071	1,991	2,213	2,049

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	93	90	90	86	90	85	83	73	77
	Employees	5,296	5,387	6,118	6,224	5,945	5,753	5,254	5,204	5,756
	Payroll	254,592	293,112	326,827	315,379	329,739	325,389	350,599	352,999	380,594
Seafood sales, wholesale	Establishments	105	107	101	116	119	118	120	109	108
	Employees	970	911	1,085	999	1,098	1,077	1,142	940	1,227
	Payroll	45,871	45,543	51,508	49,683	52,761	54,339	60,854	55,073	62,133
Seafood sales, retail	Establishments	47	44	40	35	33	39	37	33	29
	Employees	282	253	256	266	276	279	296	213	189
	Payroll	9,098	7,786	8,210	9,069	9,938	10,865	11,059	8,342	7,598

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	152	135	141	138	131	143	129	135	136
	Employees	5,406	5,232	5,294	5,387	5,060	4,653	4,930	5,213	4,987
	Payroll	284,759	276,402	290,400	273,825	262,730	265,732	269,879	296,499	283,128
Deep Sea Freight Transportation	Establishments	20	14	12	8	8	8	5	6	9
	Employees	209	ds	ds	200	204	194	170	0	208
	Payroll	24,711	ds	14,014	14,892	14,991	13,981	13,822	0	28,617
Deep Sea Passenger Transportation	Establishments	4	2	2	5	4	6	4	4	4
	Employees	ds	ds	ds	ds	1,412	1,277	1,151	919	1,012
	Payroll	ds	ds	ds	ds	54,346	73,134	72,462	59,817	62,226
Coastal and Great Lakes Freight Transportation	Establishments	30	28	28	35	38	35	41	39	41
	Employees	1,731	1,684	1,557	2,186	2,020	1,879	1,956	1,533	1,734
	Payroll	130,398	132,068	126,401	170,003	163,075	162,635	163,240	148,497	167,788
Port and Harbor Operations	Establishments	9	9	48	28	27	23	23	13	12
	Employees	74	75	1,509	181	304	250	226	128	159
	Payroll	4,662	4,937	85,042	11,894	16,449	14,278	14,169	9,911	15,051
Marine Cargo Handling	Establishments	26	32	13	30	29	30	30	35	36
	Employees	ds	3,910	ds	ds	ds	3,966	4,143	4,241	4,128
	Payroll	ds	323,286	ds	ds	ds	424,469	436,086	469,911	481,422
Navigational Services to Shipping	Establishments	79	78	72	73	71	68	76	81	77
	Employees	1,225	1,207	ds	ds	1,297	1,176	1,175	1,292	1,293
	Payroll	102,766	94,781	ds	ds	101,251	88,363	88,045	116,801	127,389
Marinas	Establishments	117	114	100	110	106	102	97	101	103
	Employees	560	517	479	529	530	588	525	559	601
	Payroll	18,783	18,364	18,038	18,914	20,348	21,944	21,809	22,021	23,655

[1] ds = Data are suppressed.
[2] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.

Western Pacific Region

- Hawai'i

Opah landed by a pelagic longline vessel for sale at a Pier 38 fish auction (Honolulu, Hawai'i).
Photo: NOAA Fisheries/Cliff Hutt

MANAGEMENT CONTEXT

The U.S. Pacific Islands Region includes the state of Hawai'i; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands (CNMI); and the Pacific Remote Island Areas. Federal fisheries in this region are managed by the Western Pacific Fishery Management Council (WPFMC) and NOAA Fisheries under five fishery ecosystem plans (FEPs). These plans focus on place-based rather than species- or fishery-based management.

Western Pacific Fishery Ecosystem Plans

- American Samoa
- Hawai'i
- Mariana Archipelago (Guam and the CNMI)
- Pacific Remote Island Areas
- Western Pacific Pelagics

Three of the stocks or stock complexes covered in these FEPs were listed as overfished in 2019: Pacific bluefin tuna (Pacific stock); striped marlin (Western/Central Pacific stock); and seamount groundfish complex (Hancock seamount stock). Four stocks/complexes were subject to overfishing in 2019: Pacific bluefin tuna (Pacific stock); swordfish (Eastern Pacific stock); yellowfin tuna (Eastern Pacific stock); and striped marlin (Western/Central Pacific stock).[1]

Because fishery data are limited in most of these areas, only information for the Hawai'i and Western Pacific pelagic fisheries is reported here. No catch share programs have been implemented in this region.

Hawai'i FEP: NOAA Fisheries, the WPFMC, and the State of Hawai'i collaborate to manage fisheries across the Hawai'i Archipelago. The major fisheries in Hawai'i include trolling for pelagic species such as tuna, marlin, wahoo, and mahimahi; deepwater hook-and-line bottom fishing; and various forms of net fishing that target nearshore pelagic and reef fish species. Under this FEP, the Hancock Seamount groundfish complex is currently overfished. This fishery has been closed since 1986.

Western Pacific Pelagics FEP: The management species covered under this FEP include tunas, billfishes, sharks, squids, and an assortment of other species. These species include mahimahi, wahoo, moonfish, and pomfret caught by the Hawai'i longline fishery and smaller boats that use diverse gears including trolling, handline, and traditional fishing methods. Of these species, yellowfin tuna, Pacific bluefin tuna, swordfish, and the Western/Central Pacific striped marlin stock are considered subject to overfishing. The Western/Central Pacific striped marlin stock and Pacific bluefin tuna stock are also listed as overfished.

In addition to management by the WPFMC and NOAA Fisheries, pelagic fish, such as bigeye and yellowfin tunas, are managed by two regional fishery management organizations (RFMOs). The Western and Central Pacific Fisheries Commission (WCPFC) has authority to manage pelagic fisheries in the Western and Central Pacific Ocean, while the Inter-American Tropical Tuna Commission (IATTC) manages pelagic fisheries in the Eastern Pacific Ocean. Fish species and fisheries under the purview of both RFMOs migrate across national boundaries and between RFMO areas, requiring coordinated management. Since 2009, the annual bigeye tuna catch limit has been recommended by the WCPFC and implemented by NOAA Fisheries for the U.S. longline fleet in the Western and Central Pacific. The IATTC establishes the harvest limit for bigeye tuna for U.S. longline vessels longer than 24 meters in the Eastern Tropical Pacific.

COMMERCIAL FISHERIES — WESTERN PACIFIC (HAWAI'I) REGION

In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

[1] The bluefin tuna, yellowfin tuna, swordfish and striped marlin stocks cited here as overfished and/or experiencing overfishing are fished by U.S. and international fleets under a formal international agreement.

Key Western (Hawai'i) Pacific Commercial Species

- Dolphinfish (*mahimahi*)
- Lobsters (*ula*)
- Marlin (*a'u*)
- Moonfish (*opah*)
- Pomfrets (*monchong*)
- Scad (*opelu*)
- Snappers
- Swordfish (*mekajiki*)
- Tunas (*aku*)
- Wahoo (*ono*)

Economic Impacts

The premise behind economic impact modeling is that every dollar spent in a regional economy (direct impact) is either saved or re-spent on additional goods or services. If those dollars are re-spent on other goods and services in the regional economy, this spending generates additional economic activity in the region.[2]

Four different measures are commonly used to show how commercial fisheries landings affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as commercial fishing. The category includes both the direct sales of fish landed and sales made between businesses and households resulting from the original sale. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the sales of seafood or purchases of inputs to commercial fishing. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. The United States seafood industry is defined here as the commercial fishing sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers.[3]

This report provides estimates of total economic impacts for the nation and for each of the 23 coastal states. Total economic impacts for each state and the nation represent the sum of direct impacts; indirect impacts (in this case, the impact from suppliers to the seafood industry); and induced impacts (spending by employees on personal and household expenditures, where employees of both the seafood industry and its full supply chain are included). That is, the total economic impact estimates reported here measure jobs, sales, value-added, and income impacts from the seafood industry as well as the economic activity generated throughout each region's broader economy from this industry.

In 2019, the commercial fishing and seafood industry supported 7,693 full- and part-time jobs and generated $786 million in sales, $229.5 million in income, and $340.9 million in value-added impacts in the Western Pacific (Hawai'i) Region. Importers generated the largest sales impacts ($340.2 million) and value-added impacts ($103.7 million). Commercial harvesters generated the largest income impacts ($70 million) and employment impacts (3,247 jobs).

Landings Revenue

In 2019, landings revenue in Hawai'i totaled $109.8 million, a 31% increase from 2010 (a 12% increase in real terms after adjusting for inflation) and an 8% decrease from 2018.

Finfish landings revenue accounted for 99% of all landings revenue. In 2019, tunas (*aku*) ($85.5 million), swordfish (*mekajiki*) ($3.8 million), and wahoo (*ono*) ($3.6 million) had the highest landings revenue in this region. Together, these top three species accounted for 85% of total landings revenue.

From 2010 to 2019, wahoo (*ono*) (108%, 78% in real terms), pomfrets (*monchong*) (77%, 51% in real terms), and tunas (*aku*) (43%, 23% in real terms) had the largest increases, while lobsters (*ula*) (-72%, -76% in real terms), swordfish (*mekajiki*) (-48%, -55% in real terms), and scad (*opelu*) (-19%, -31% in real terms) had the largest decreases. From 2018 to 2019, lobsters (*ula*) (132%), wahoo (*ono*) (20%), and swordfish (*mekajiki*) (3%) had the largest increases, while marlin (*a'u*) (-18%), tunas (*aku*) (-9%), and moonfish (*opah*) (-5%) had the largest decreases.

[2] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]
[3] The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates. [Available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf.]

Commercial Revenue: Largest Increases

From 2010:
- Wahoo (*ono*) (108%, 78% in real terms)
- Pomfrets (*monchong*) (77%, 51% in real terms)
- Tunas (*aku*) (43%, 23% in real terms)

From 2018:
- Lobsters (*ula*) (132%)
- Wahoo (*ono*) (20%)
- Swordfish (*mekajiki*) (3%)

Commercial Revenue: Largest Decreases

From 2010:
- Lobsters (*ula*) (-72%, -76% in real terms)
- Swordfish (*mekajiki*) (-48%, -55% in real terms)
- Scad (*opelu*) (-19%, -31% in real terms)

From 2018:
- Marlin (*a'u*) (-18%)
- Tunas (*aku*) (-9%)
- Moonfish (*opah*) (-5%)

Commercial Landings: Largest Increases

From 2010:
- Wahoo (*ono*) (154%)
- Marlin (*a'u*) (115%)
- Tunas (*aku*) (39%)

From 2018:
- Lobsters (*ula*) (126%)
- Marlin (*a'u*) (42%)
- Wahoo (*ono*) (33%)

Commercial Landings: Largest Decreases

From 2010:
- Lobsters (*ula*) (-63%)
- Swordfish (*mekajiki*) (-53%)
- Dolphinfish (*mahimahi*) (-38%)

From 2018:
- Moonfish (*opah*) (-31%)
- Pomfrets (*monchong*) (-16%)
- Swordfish (*mekajiki*) (-15%)

Landings

In 2019, Hawai'i commercial fishermen landed over 34.7 million pounds of finfish and shellfish. This represents a 24% increase from 2010 and a 2% decrease from 2018. Tunas (*aku*) contributed the highest landings volume in the region, accounting for 67% of total landing weight.

From 2010 to 2019, wahoo (*ono*) (154%), marlin (*a'u*) (115%), and tunas (*aku*) (39%) had the largest increases, while lobsters (*ula*) (-63%), swordfish (*mekajiki*) (-53%), and dolphinfish (*mahimahi*) (-38%) had the largest decreases. From 2018 to 2019, lobsters (*ula*) (126%), marlin (*a'u*) (42%), and wahoo (*ono*) (33%) had the largest increases, while moonfish (*opah*) (-31%), pomfrets (*monchong*) (-16%), and swordfish (*mekajiki*) (-15%) had the largest decreases.

Prices

In 2019, lobsters (*ula*) ($9.22 per pound) received the highest ex-vessel price in the region. Landings of marlin (*a'u*) ($0.71 per pound) had the lowest ex-vessel price. From 2010 to 2019, dolphinfish (*mahimahi*) (68%, 44% in real terms), moonfish (*opah*) (36%, 17% in real terms), and pomfrets (*monchong*) (34%, 15% in real terms) had the largest increases, while marlin (*a'u*) (-45%, -53% in real terms), lobsters (*ula*) (-25%, -36% in real terms), and wahoo (*ono*) (-18%, -30% in real terms) had the largest decreases. From 2018 to 2019, moonfish (*opah*) (36%), swordfish (mekajiki) (20%), and pomfrets (*monchong*) (14%) had the largest increases, while marlin (*a'u*) (-42%), wahoo (*ono*) (-10%), and snappers (-7%) had the largest decreases.

RECREATIONAL FISHERIES — WESTERN PACIFIC (HAWAI'I) REGION

In the Western Pacific (Hawai'i) Region, recreational fishing includes all non-commercial fishing, which is fishing that does not meet the definition of commercial fishing in the Magnuson-Stevens Fishery Conservation and Management Act, and includes, but is not limited

to, sustenance, subsistence, traditional indigenous, and recreational fishing.[4] This recreational fisheries section reports on economic impacts and expenditures, angler participation, fishing trips, and catch of key species/species groups.[5]

Key Western Pacific (Hawai'i) Recreational Species[6]

- Bigeye (*akule*) and mackerel (*opelu*) scad
- Blue marlin (*a'u*)
- Deep 7 bottomfish[7]
- Dolphinfish (*mahimahi*)
- Goatfishes[8]
- Jacks (trevallys and other jacks)[9]
- Other snappers[10]
- Skipjack tuna (*aku*)
- Wahoo (*ono*)
- Yellowfin tuna (*'ahi*)

Economic Impacts and Expenditures

The economic contribution of recreational fishing activities in the Western Pacific (Hawai'i) Region is based on spending by recreational anglers.[11] Total annual trip expenditures are estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusting by the CPI (consumer price index) to the current year. After 2018, state level durable expenditures and durable impacts will no longer be available due to changes in the availability of angler participation data at the state level.

Four different measures are commonly used to show how angler expenditures affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as recreational fishing. The category includes both the direct sales made by the angler and sales made between businesses and households resulting from that original sale by the angler. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in number of jobs. Note that these categories are not additive. NOAA Fisheries uses a regional impact modeling software, called IMPLAN, to estimate these four types of impacts.

The economic contributions for trip expenditures from recreational fishing in 2019 were estimated using IMPLAN version 3, with base year data from 2017. Models for each state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2019 trips).

In 2019, economic impacts from recreational fishing activities in Hawai'i generated 2,911 jobs, $400 million in sales, $123.7 million in income, and $222.2 million in value-added impacts.

Data for the for-hire mode is not available in Hawai'i. Of the two fishing trip modes, shore fishing trips had the greatest economic impact, accounting for 68% of employment impacts. Trip expenditures for shore and private boat modes totaled $330.1 million, with a large portion of these trip expenditures coming from trips in the shore (63%) mode. Data for durable expenditures is not available due to unavailable participation estimates.

Participation

Due to changes in data availability after 2018, angler participation data is not being reported at the state level for 2019.

Fishing Trips

In 2019, recreational fishermen took 3.5 million saltwater fishing trips in the state of Hawai'i. This number represented a 46% increase from 2010 and a 2% increase from 2018. Of all fishing trips, 82% were taken from the shore sector.

[4] For a definition of non-commercial fishing see the electronic code of federal regulations. [Available at: https://gov.ecfr.io/cgi-bin/text-idx?SID=3a25270218fea2849201cc659f78167f&mc=true&node=se50.13.665_112&rgn=div8.].
[5] Data for this state is from MRIP estimates produced using pre-calibration methods.
[6] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[7] Binghams snapper, hawaiian grouper, ironjaw snapper, longtailed red snapper, pink snapper, ruby snapper, and von siebolds snapper.
[8] Bandtail goatfish, blue goatfish, doublebar goatfish, goatfish family, goatfishes, manybar goatfish, pflugers goatfish, whitesaddle goatfish, yellowfin goatfish, and yellowstripe goatfish.
[9] African pompano, bigeye trevally, black jack, black trevally, bluefin trevally, giant trevally, greater amberjack, island jack, jack family, and jack genus
[10] Binghams snapper, blacktail snapper, bluestipe snapper, bluestripe snapper, green jobfish, ironjaw snapper, longtailed red snapper, pink snapper, ruby snapper, smalltooth jobfish, snapper family, snapper genus, and von siebolds snapper.
[11] Trip expenditure estimates were generated from the 2016/2017 National Marine Recreational Fishing Expenditure Survey (Lovell et al., 2020). Durable goods expenditures were generated from the 2019 National Marine Recreational Fishing Expenditure Survey. [For citations: Publications-Recreational Fisheries Economics Research.]

Harvest and Release Trends

Of the Western Pacific (Hawai'i) Region's key species and species groups, bigeye (akule) and mackerel (opelu) scad (5.2 million fish), goatfishes (1.2 million fish), and jacks (trevallys and other jacks) (704,196 fish), were most frequently caught by recreational fishermen. The text box below shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2010 to 2019, blue marlin (*a'u*) (704%), deep 7 bottomfish (146%), and wahoo (*ono*) (117%) had the largest increases, while other snappers (-23%), dolphinfish (*mahimahi*) (-23%), and skipjack tuna (*aku*) (-5%) had the largest decreases. From 2018 to 2019, deep 7 bottomfish (74%), yellowfin tuna (*'ahi*) (32%), and skipjack tuna (*aku*) (25%) had the largest increases, while blue marlin (*a'u*) (-43%), dolphinfish (*mahimahi*) (-42%), and wahoo (*ono*) (-31%) had the largest decreases.

Harvest and Release: Largest Increases

From 2010:
- Blue marlin (*a'u*) (704%)
- Deep 7 bottomfish (146%)
- Wahoo (*ono*) (117%)

From 2018:
- Deep 7 bottomfish (74%)
- Yellowfin tuna (*'ahi*) (32%)
- Skipjack tuna (*aku*) (25%)

Harvest and Release: Largest Decreases

From 2010:
- Other snappers (-23%)
- Dolphinfish (*mahimahi*) (-23%)
- Skipjack tuna (*aku*) (-5%)

From 2018:
- Blue marlin (*a'u*) (-43%)
- Dolphinfish (*mahimahi*) (-42%)
- Wahoo (*ono*) (-31%)

MARINE ECONOMY — WESTERN PACIFIC (HAWAI'I) REGION

For this report, the marine economy refers to the fishing and marine-related industries in a coastal state. The state marine economy consists of two industry sectors: 1) seafood sales and processing (employer establishments and non-employer firms); and 2) transportation support and marine operations (employer establishments). These sectors include several different marine-related industries.[12]

The Commercial Fishing Location Quotient (CFLQ) measures the size of the commercial fishing sector in a state's economy relative to the size of the commercial fishing sector in the national economy.[13] The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The U.S. CFLQ is 1. If a state CFLQ is less than 1, then less commercial fishing occurs in this state than the national average. If a state CFLQ is greater than 1, then more commercial fishing occurs in this state than the national average.

Hawai'i had a CFLQ value of 3.55.

In 2018, 32,952 employer establishments operated in the Western Pacific (Hawai'i) Region (including marine and non-marine related establishments). These establishments employed 551,681 workers and had a total annual payroll of $25.1 billion. The combined gross state product of Hawai'i was approximately $90.3 billion in 2018.

Seafood Sales and Processing

Seafood Product Preparation and Packaging: In 2018, Hawai'i had 18 non-employer firms in the seafood product preparation and packaging sector (a 64% increase from 2010). Annual receipts for these firms totaled $1.5 million (an 80% increase in real terms from 2010). There were 3 employer firms in the seafood product preparation and packaging sector (a 200% increase from 2010).

[12] Unless otherwise stated, data are from the U.S. Census Bureau. County Business Patterns data and Nonemployer Statistics available at https://www.census.gov. The Census data are only available through 2018. GDP and Compensation of Employees data was obtained from the U.S. Bureau of Economic Analysis, 'Table SAGDP1 Gross Domestic Product' and 'Table SA6N Compensation of Employees by NAICS Industry,' respectively. Percentage changes in inflation-adjusted (real) dollar terms are calculated using the annual Gross Domestic Product implicit price deflator, which was obtained from the Federal Reserve Bank of St. Louis (https://fred.stlouisfed.org/series/USAGDPDEFAISMEI).
[13] U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

Retail Seafood Sales: In 2018, there were 21 non-employer firms in seafood retail sales in Hawai`i (a 43% decrease from 2010). Annual receipts for these firms totaled $2.4 million (a 50% decrease in real terms from 2010). There were 21 employer firms in the seafood retail sector (a 12% decrease from 2010).

Wholesale Seafood Sales: There were 31 employer firms in the seafood wholesale sector in Hawai`i in 2018 (a 16% decrease from 2010).

Transportation Support and Marine Operations

Data for the transportation support and marine operations sectors of Hawai`i's economy were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the regional economy. For example, in 2018, the marine cargo handling sector in Hawai`i accounted for $92.3 million in payroll.

Tables | Hawai‘i

2019 Economic Impacts of the Hawai'i Seafood Industry (jobs, thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	7,693	785,982	229,494	340,904	5,818	369,810	144,985	198,171
Commercial Harvesters	3,247	190,992	69,998	100,435	3,247	190,992	69,998	100,435
Seafood Processors & Dealers	683	70,665	27,973	36,077	375	38,775	15,349	19,796
Importers	1,040	340,156	54,516	103,694	0	0	0	0
Seafood Wholesalers & Distributors	414	46,323	16,247	21,613	181	20,262	7,107	9,454
Retail	2,308	137,845	60,760	79,085	2,014	119,780	52,532	68,486

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	84,091	91,611	112,343	108,031	101,313	103,424	118,182	116,423	119,158	109,751
Finfish	83,002	90,074	110,326	105,775	98,975	101,933	115,814	114,354	116,988	108,145
Shellfish and Other	1,090	1,537	2,018	2,256	2,338	1,491	2,368	2,069	2,171	1,606
Key Species	-	-	-	-	-	-	-	-	-	
Dolphinfish (*mahi-mahi*)	3,303	4,314	5,309	4,130	4,412	3,427	4,512	3,451	3,493	3,454
Lobsters (*ula*)	117	104	98	95	105	NA	28	21	14	32
Marlin (*a'u*)	1,124	1,238	1,455	1,467	1,607	1,639	2,097	2,120	1,617	1,333
Moonfish (*opah*)	2,591	2,853	3,163	3,203	2,910	3,151	NA	3,203	3,301	3,121
Pomfrets (*monchong*)	1,549	1,449	2,097	2,576	2,466	2,874	3,502	3,287	2,855	2,734
Scad (*opelu*)	1,251	964	1,181	1,147	1,128	108	1,173	996	998	1,009
Snappers	1,696	1,425	1,750	2,024	2,250	1,136	2,302	2,645	1,824	1,762
Swordfish (*mekajiki*)	7,303	6,669	6,693	4,493	5,405	4,629	4,813	5,823	3,699	3,805
Tunas (*aku*)	59,775	66,628	83,298	81,819	73,657	81,576	88,467	87,285	94,223	85,537
Wahoo (*ono*)	1,746	1,806	2,330	2,375	2,800	2,328	3,279	3,066	3,040	3,638

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	28,074	29,295	31,053	32,453	33,480	34,625	35,055	37,166	35,497	34,684
Finfish	27,618	28,278	30,271	31,338	32,269	33,425	33,966	36,076	34,169	33,214
Shellfish and Other	456	1,017	783	1,116	1,211	1,200	1,090	1,090	1,328	1,471
Key Species	-	-	-	-	-	-	-	-	-	-
Dolphinfish (*mahi-mahi*)	1,518	1,423	1,746	1,515	1,689	1,132	1,193	954	1,008	943
Lobsters (*ula*)	9	10	8	9	10	NA	3	3	2	3
Marlin (*a'u*)	878	916	800	948	1,220	1,440	1,302	1,544	1,329	1,888
Moonfish (*opah*)	1,824	1,564	1,549	2,072	2,004	2,067	NA	1,812	2,327	1,614
Pomfrets (*monchong*)	593	427	731	1,142	1,243	1,339	1,166	980	930	781
Scad (*opelu*)	460	323	383	361	356	36	368	306	299	313
Snappers	346	272	311	363	376	181	387	427	271	283
Swordfish (*mekajiki*)	3,153	2,592	2,381	1,674	2,480	2,044	1,640	2,561	1,744	1,491
Tunas (*aku*)	16,706	18,519	20,147	20,900	20,296	22,932	23,507	25,028	23,913	23,271
Wahoo (*ono*)	600	564	652	744	1,056	993	1,144	973	1,148	1,523

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Dolphinfish (*mahimahi*)	2.18	3.03	3.04	2.73	2.61	3.03	3.78	3.62	3.46	3.66
Lobsters (*ula*)	12.36	10.39	11.84	10.71	10.21	NA	8.56	6.48	8.97	9.22
Marlin (*a'u*)	1.28	1.35	1.82	1.55	1.32	1.14	1.61	1.37	1.22	0.71
Moonfish (*opah*)	1.42	1.82	2.04	1.55	1.45	1.52	NA	1.77	1.42	1.93
Pomfrets (*monchong*)	2.61	3.39	2.87	2.25	1.98	2.15	3.00	3.35	3.07	3.50
Scad (*opelu*)	2.72	2.98	3.08	3.18	3.17	2.99	3.19	3.25	3.34	3.23
Snappers	4.90	5.24	5.63	5.57	5.99	6.27	5.95	6.20	6.73	6.24
Swordfish (*mekajiki*)	2.32	2.57	2.81	2.68	2.18	2.26	2.93	2.27	2.12	2.55
Tunas (*aku*)	3.58	3.60	4.13	3.91	3.63	3.56	3.76	3.49	3.94	3.68
Wahoo (*ono*)	2.91	3.20	3.57	3.19	2.65	2.34	2.87	3.15	2.65	2.39

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of Hawai'i Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	NA	NA	NA	NA
	Private Boat	933	147,592	41,424	76,359
	Shore	1,978	252,375	82,311	145,794
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		2,911	399,967	123,736	222,153

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	NA
Private Boat	122,449
Shore	207,626
Total	330,075

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	330,075

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Private Boat	484	224	325	297	324	273	235	261	670	632
Shore	1,907	1,158	1,195	1,216	1,051	1,158	790	1,019	2,750	2,847
Total Trips	2,390	1,382	1,519	1,513	1,374	1,431	1,024	1,280	3,421	3,479

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bigeye (*akule*) and mackerel (*opelu*) scad	H	840	662	608	889	899	1,245	690	1,172	4,043	5,232
	R	0	0	0	2	0	< 1	4	7	2	8
Blue marlin (*a'u*)	H	1	2	3	4	3	5	2	4	13	10
	R	0	0	0	0	< 1	0	0	< 1	5	< 1
Deep 7 bottomfish	H	1	< 1	1	2	2	< 1	< 1	NA	2	3
	R	0	0	0	0	0	0	0	NA	0	0
Dolphinfish (*mahimahi*)	H	164	63	163	94	92	78	44	47	216	125
	R	0	0	0	0	< 1	0	< 1	< 1	2	2
Goatfishes	H	270	173	158	873	537	1,052	246	420	2,037	1,167
	R	18	13	13	3	22	15	16	18	69	34
Jacks (trevallys and other jacks)	H	140	99	110	144	156	170	112	115	202	310
	R	126	59	129	126	263	319	122	154	413	395
Other snappers	H	340	113	195	152	220	119	119	126	336	252
	R	25	14	15	10	3	9	14	10	19	29
Skipjack tuna (*aku*)	H	289	125	197	380	199	268	88	113	213	270
	R	0	< 1	0	0	0	< 1	2	2	6	3
Wahoo (*ono*)	H	41	15	32	37	43	55	45	32	127	88
	R	0	0	0	0	< 1	< 1	< 1	0	0	0
Yellowfin tuna (*'ahi*)	H	302	141	182	150	220	292	85	82	215	287
	R	1	0	0	0	< 1	1	< 1	0	6	5

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Hawai'i State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
112,589 (0.4%)	32,952 (0.4%)	551,681 (0.4%)	25.1 (0.4%)	49.3 (0.5%)	90.3	3.55

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	11	14	14	16	14	12	12	10	18
	Receipts	741	866	965	821	1,048	1,271	1,071	717	1,529
Seafood sales, retail	Firms	37	39	42	40	38	39	31	27	21
	Receipts	4,124	3,558	4,086	3,764	3,727	4,053	4,025	2,106	2,364

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	1	1	2	2	2	2	2	3	3
	Employees	ds	ds	ds	ds	ds	ds	ds	0	30
	Payroll	ds	ds	ds	ds	ds	ds	ds	0	922
Seafood sales, wholesale	Establishments	37	40	33	32	30	30	30	32	31
	Employees	531	538	483	542	567	639	697	621	688
	Payroll	19,290	19,416	19,413	20,039	21,369	24,477	26,323	22,856	25,515
Seafood sales, retail	Establishments	24	25	24	25	26	25	22	21	21
	Employees	177	187	303	318	305	293	313	308	534
	Payroll	3,533	3,521	6,493	7,366	7,142	7,410	7,849	8,500	12,273

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	15	15	18	18	14	14	15	15	15
	Employees	ds	ds	ds	ds	ds	660	727	927	646
	Payroll	ds	ds	ds	ds	ds	46,560	45,051	66,270	45,133
Deep Sea Freight Transportation	Establishments	1	1	2	1	1	1	1	3	4
	Employees	ds	ds	ds	ds	ds	ds	ds	0	55
	Payroll	ds	ds	ds	ds	ds	ds	ds	0	6,491
Deep Sea Passenger Transportation	Establishments	1	1	1	1	1	1	1	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	2	2	5	5	6	7	7	6	6
	Employees	ds	ds	431	ds	ds	452	425	275	270
	Payroll	ds	ds	34,538	ds	ds	36,675	50,267	42,282	44,039
Port and Harbor Operations	Establishments	2	2	2	1	1	1	NA	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	NA	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	NA	NA	NA
Marine Cargo Handling	Establishments	14	14	11	10	10	11	12	11	12
	Employees	1,236	1,278	664	709	700	782	846	869	857
	Payroll	109,059	109,134	54,309	61,651	66,034	83,408	115,582	86,285	92,308
Navigational Services to Shipping	Establishments	11	8	8	9	9	11	11	8	9
	Employees	90	105	97	100	80	70	69	51	148
	Payroll	5,113	5,310	5,567	6,518	5,416	4,463	5,697	4,304	5,389
Marinas	Establishments	13	13	9	11	9	9	9	9	9
	Employees	189	208	162	166	153	120	113	123	116
	Payroll	5,362	5,237	3,779	4,003	3,304	3,412	3,421	3,756	3,664

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = not available.

New England Region

- Connecticut
- Maine
- Massachusetts
- New Hampshire
- Rhode Island

Acadian redfish to be used as bait at Gloucester Fisherman's Wharf.
Photo: New England Fishery Management Council/Janice Plante

MANAGEMENT CONTEXT

The New England Region includes Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island. Federal fisheries in this region are managed by the New England Fishery Management Council (NEFMC) and NOAA Fisheries under nine fishery management plans (FMPs). Two of these FMPs, monkfish and spiny dogfish, are developed in conjunction with the Mid-Atlantic Fisheries Management Council (MAFMC). The MAFMC is the lead council for the Spiny Dogfish FMP; the NEFMC is the lead for the Monkfish FMP.

New England Regional FMPs

- Northeast multi-species
- Sea scallops
- Monkfish (with the MAFMC)
- Atlantic herring
- Small mesh multi-species
- Spiny dogfish (with the MAFMC)
- Red crab
- Northeast skate complex
- Atlantic salmon

Fifteen of the stocks or stock complexes covered in these FMPs were listed as overfished in 2019: Atlantic cod (Georges Bank stock and Gulf of Maine stock), windowpane (Gulf of Maine/Georges Bank stock), witch flounder, yellowtail flounder (Georges Bank stock and Southern New England/Mid-Atlantic stock), thorny skate (Gulf of Maine stock), Atlantic halibut, Atlantic salmon, Atlantic wolffish, ocean pout, winter flounder (Southern New England stock and Georges Bank stock), red hake (Southern Georges Bank/Mid-Atlantic stock), and white hake (Gulf of Maine/Georges Bank stock). Yellowtail flounder (Cape Cod/Gulf of Maine stock) was removed from the overfished list in 2019.

Four stocks/complexes were subject to overfishing in 2019: Atlantic cod (Georges Bank stock and Gulf of Maine stock), yellowtail flounder (Georges Bank stock), and red hake (Southern Georges Bank/Mid-Atlantic stock). Two yellowtail flounder stocks (Cape Cod/Gulf of Maine stock and Southern New England/Mid-Atlantic stock) were removed from the overfishing list in 2019.

Catch Share Programs

Two catch share programs operate in the New England Region: 1) Northeast Multispecies Sectors: Georges Bank Cod – Hook Gear (2004) and Georges Bank Cod – Fixed Gear (2007); and 2) Northeast General Category Sea Scallop Individual Fishing Quota (IFQ) Program. The landings revenues for these programs totaled $79.7 million (in inflation-adjusted 2018 dollars) in 2018. The following are descriptions of these catch share programs and their performance.

Northeast Multispecies Sectors: This program was developed between 2004 and 2006 and included two pilot sectors that operated with an allocation of Georges Bank cod. The program was expanded in 2010 to 17 sectors and approximately 55% of eligible, limited-access permit holders joined a sector. At the same time, annual catch limits were implemented for the first time and sharply reduced the available quota for fishermen. The 2018 key performance indicators of the program show that relative to the baseline period (the three-year period prior to implementation), quota, landings, the number of active vessels, and inflation-adjusted landings revenue decreased, while inflation-adjusted revenue per active vessel increased.

Atlantic General Category Sea Scallop IFQ Program: This program began in 2010 with two primary objectives: 1) Control capacity and mortality in the General Category Scallop fishery, and 2) allow better and timelier integration of sea scallop assessment results in management. The 2018 key performance indicators of the program show that relative to the baseline period, landings, the number of active vessels, and inflation-adjusted landings revenue decreased, while quota and inflation-adjusted revenue per active vessel increased.

COMMERCIAL FISHERIES — NEW ENGLAND REGION

In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

Key New England Region Commercial Species

- American lobster
- Atlantic herring
- Atlantic mackerel
- Bluefin tuna
- Cod and haddock
- Flounders
- Goosefish
- Quahog clam
- Sea scallop
- Squid

Economic Impacts

The premise behind economic impact modeling is that every dollar spent in a regional economy (direct impact) is either saved or re-spent on additional goods or services. If those dollars are re-spent on other goods and services in the regional economy, this spending generates additional economic activity in the region.[1]

Four different measures are commonly used to show how commercial fisheries landings affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as commercial fishing. The category includes both the direct sales of fish landed and sales made between businesses and households resulting from the original sale. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the sales of seafood or purchases of inputs to commercial fishing. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. The United States seafood industry is defined here as the commercial fishing sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers.[2]

This report provides estimates of total economic impacts for the nation and for each of the 23 coastal states. Total economic impacts for each state and the nation represent the sum of direct impacts; indirect impacts (in this case, the impact from suppliers to the seafood industry); and induced impacts (spending by employees on personal and household expenditures, where employees of both the seafood industry and its full supply chain are included). That is, the total economic impact estimates reported here measure jobs, sales, value-added, and income impacts from the seafood industry as well as the economic activity generated throughout each region's broader economy from this industry.

In 2019, the commercial fishing and seafood industry in Massachusetts generated the largest employment impacts in New England with 148,437 full- and part-time jobs. Massachusetts also generated the largest sales impacts ($16.3 billion), value-added impacts ($6.3 billion), and income impacts ($4 billion).

Landings Revenue

In 2019, landings revenue in New England totaled $1.5 billion, a 45% increase from 2010 (a 24% increase in real terms after adjusting for inflation) and a 3% increase from 2018. Landings revenue was highest in Massachusetts ($681 million), followed by Maine ($657 million).

Shellfish and other landings revenue accounted for 92% of all landings revenue. In 2019, American lobster ($634.8 million), sea scallop ($433.8 million), and squid ($46.3 million) had the highest landings revenue in this region. Together, these top three species accounted for 74% of total landings revenue.

From 2010 to 2019, squid (213%, 168% in real terms), sea scallop (63%, 40% in real terms), and American lobster (60%, 37% in real terms) had the largest

[1] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]
[2] The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates. [Available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf.]

increases, while Atlantic herring (-57%, -63% in real terms), cod and haddock (-52%, -59% in real terms), and Atlantic mackerel (-51%, -58% in real terms) had the largest decreases. From 2018 to 2019, cod and haddock (32%), squid (19%), and quahog clam (18%) had the largest increases, while Atlantic herring (-60%), Atlantic mackerel (-43%), and bluefin tuna (-14%) had the largest decreases.

Commercial Revenue: Largest Increases

From 2010:
- Squid (213%, 168% in real terms)
- Sea scallop (63%, 40% in real terms)
- American lobster (60%, 37% in real terms)

From 2018:
- Cod and haddock (32%)
- Squid (19%)
- Quahog clam (18%)

Commercial Revenue: Largest Decreases

From 2010:
- Atlantic herring (-57%, -63% in real terms)
- Cod and haddock (-52%, -59% in real terms)
- Atlantic mackerel (-51%, -58% in real terms)

From 2018:
- Atlantic herring (-60%)
- Atlantic mackerel (-43%)
- Bluefin tuna (-14%)

Landings

In 2019, New England commercial fishermen landed over 516.7 million pounds of finfish and shellfish. This represents a 15% decrease from 2010 and a 13% decrease from 2018. American lobster contributed the highest landings volume in the region, accounting for 25% of total landing weight.

From 2010 to 2019, squid (152%), goosefish (57%), and bluefin tuna (50%) had the largest increases, while Atlantic herring (-83%), Atlantic mackerel (-68%), and cod and haddock (-45%) had the largest decreases. From 2018 to 2019, squid (33%), cod and haddock (29%), and flounders (11%) had the largest increases, while Atlantic herring (-73%), Atlantic mackerel (-54%), and American lobster (-14%) had the largest decreases.

Commercial Landings: Largest Increases

From 2010:
- Squid (152%)
- Goosefish (57%)
- Bluefin tuna (50%)

From 2018:
- Squid (33%)
- Cod and haddock (29%)
- Flounders (11%)

Commercial Landings: Largest Decreases

From 2010:
- Atlantic herring (-83%)
- Atlantic mackerel (-68%)
- Cod and haddock (-45%)

From 2018:
- Atlantic herring (-73%)
- Atlantic mackerel (-54%)
- American lobster (-14%)

Prices

In 2019, quahog clam ($10.61 per pound) received the highest ex-vessel price in the region. Landings of Atlantic mackerel ($0.31 per pound) had the lowest ex-vessel price. From 2010 to 2019, Atlantic herring (149%, 113% in real terms), quahog clam (95%, 67% in real terms), and Atlantic mackerel (52%, 30% in real terms) had the largest increases, while goosefish (-46%, -54% in real terms), bluefin tuna (-36%, -46% in real terms), and cod and haddock (-12%, -24% in real terms) had the largest decreases. From 2018 to 2019, Atlantic herring (50%), Atlantic mackerel (25%), and American lobster (17%) had the largest increases, while bluefin tuna (-20%), flounders (-12%), and squid (-10%) had the largest decreases.

RECREATIONAL FISHERIES — NEW ENGLAND REGION

In this report, recreational fishing refers to fishing for leisure rather than to sell fish (commercial fishing) or for

subsistence. This recreational fisheries section reports on economic impacts and expenditures, angler participation, fishing trips, and catch of key species/species groups.[3]

Key New England Recreational Species[4]

- Atlantic cod
- Atlantic mackerel
- Bluefin tuna
- Bluefish
- Little tunny
- Scup
- Striped bass
- Summer flounder
- Winter flounder

Economic Impacts and Expenditures

The economic contribution of recreational fishing activities in the New England Region is based on spending by recreational anglers.[5] Total annual trip expenditures are estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusting by the CPI (consumer price index) to the current year. After 2018, state level durable expenditures and durable impacts will no longer be available due to changes in the availability of angler participation data at the state level.

Four different measures are commonly used to show how angler expenditures affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as recreational fishing. The category includes both the direct sales made by the angler and sales made between businesses and households resulting from that original sale by the angler. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in number of jobs. Note that these categories are not additive. NOAA Fisheries uses a regional impact modeling software, called IMPLAN, to estimate these four types of impacts.

The economic contributions for trip expenditures from recreational fishing in 2019 were estimated using IMPLAN version 3, with base year data from 2017. Models for each state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2019 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the New England Region were generated in Massachusetts (2,602 jobs), followed by Connecticut (895 jobs) and Rhode Island (891 jobs).The largest sales impacts were observed in Massachusetts ($313.4 million), followed by Connecticut ($108.4 million) and Rhode Island ($94.6 million). The biggest income impacts were generated in Massachusetts ($150.9 million), followed by Rhode Island ($46.9 million) and Connecticut ($46 million). The greatest value-added impacts were in Massachusetts ($217.3 million), followed by Connecticut ($83.2 million) and Rhode Island ($68.3 million).

A large portion of the approximately 566.7 million in trip expenses came from trips in the Private Boat (45.8%) and Shore (45.6%) sectors.

Participation

Due to changes in data availability after 2018, angler participation data is not being reported at the state level for 2019.

Fishing Trips

In 2019, recreational fishermen took 17.2 million fishing trips in the New England Region. This number represented a 31% decrease from 2010 and a 14% increase from 2018. The largest proportions of trips were taken in the shore mode (62%) and private boat (36%). States with the highest number of recorded trips in the New England Region were Massachusetts (7.4 million trips) and Connecticut (3.8 million trips).

Harvest and Release Trends

Of the New England Region's key species and species groups, scup (14.4 million fish), striped bass (12.3 million fish), and Atlantic mackerel (10.6 million fish), were most frequently caught by recreational fishermen. The text box below shows the species with the largest

[3] Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.
[4] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[5] Trip expenditure estimates were generated from the 2016/2017 National Marine Recreational Fishing Expenditure Survey (Lovell et al., 2020). Durable goods expenditures were generated from the 2019 National Marine Recreational Fishing Expenditure Survey. [For citations: Publications-Recreational Fisheries Economics Research.]

percentage increases and decreases in the past 10 years and in the past year.

Harvest and Release: Largest Increases

From 2010:

- Little tunny (298%)
- Bluefin tuna (271%)
- Tautog (127%)

From 2018:

- Bluefin tuna (212%)
- Bluefish (79%)
- Summer flounder (35%)

Harvest and Release: Largest Decreases

From 2010:

- Atlantic cod (-83%)
- Winter flounder (-73%)
- Bluefish (-60%)

From 2018:

- Atlantic cod (-54%)
- Little tunny (-46%)
- Winter flounder (-37%)

MARINE ECONOMY — NEW ENGLAND REGION

For this report, the marine economy refers to the fishing and marine-related industries in a coastal state. The state marine economy consists of two industry sectors: 1) seafood sales and processing (employer establishments and non-employer firms); and 2) transportation support and marine operations (employer establishments). These sectors include several different marine-related industries.[6]

The Commercial Fishing Location Quotient (CFLQ) measures the size of the commercial fishing sector in a state's economy relative to the size of the commercial fishing sector in the national economy.[7] The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The U.S. CFLQ is 1. If a state CFLQ is less than 1, then less commercial fishing occurs in this state than the national average. If a state CFLQ is greater than 1, then more commercial fishing occurs in this state than the national average.

The Bureau of Labor Statistics suppressed the CFLQ value for Massachusetts and New Hampshire for 2018. Maine had the highest CFLQ at 27.83. Rhode Island had a CFLQ value of 3.38.

In 2018, 378,211 employer establishments operated throughout the entire New England Region (including marine and non-marine related establishments). These establishments employed 6.4 million workers and had a total annual payroll of $402.7 billion. The combined gross state product of Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island was approximately $1.1 trillion in 2018.

Seafood Sales and Processing

Seafood Product Preparation and Packaging: In 2018, the New England Region had 118 non-employer firms in the seafood product preparation and packaging sector (a 5% increase from 2010). Annual receipts for these firms totaled $10.8 million (a 2% decrease in real terms from 2010). There were 63 employer firms in the seafood product preparation and packaging sector (a 27% decrease from 2010). The greatest number of establishments in this sector was in Massachusetts (85), followed by Maine (60) and Connecticut (17).

Retail Seafood Sales: In 2018, there were 152 non-employer firms in seafood retail sales in the New England Region (a 6% decrease from 2010). Annual receipts for these firms totaled $17 million (a 21% decrease in real terms from 2010). There were 217 employer firms in the seafood retail sector (a 10% decrease from 2010). The greatest number of establishments in this sector was in Massachusetts (164), followed by Maine (94) and Connecticut (62).

Wholesale Seafood Sales: There were 325 employer firms in the seafood wholesale sector in the New England Region in 2018 (a 14% decrease from 2010). The

[6] Unless otherwise stated, data are from the U.S. Census Bureau. County Business Patterns data and Nonemployer Statistics available at https://www.census.gov. The Census data are only available through 2018. GDP and Compensation of Employees data was obtained from the U.S. Bureau of Economic Analysis, 'Table SAGDP1 Gross Domestic Product' and 'Table SA6N Compensation of Employees by NAICS Industry,' respectively. Percentage changes in inflation-adjusted (real) dollar terms are calculated using the annual Gross Domestic Product implicit price deflator, which was obtained from the Federal Reserve Bank of St. Louis (https://fred.stlouisfed.org/series/USAGDPDEFAISMEI).
[7] U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

greatest number of establishments in this sector was in Maine (148), followed by Massachusetts (129) and Rhode Island (23).

Transportation Support and Marine Operations

Data for the transportation support and marine operations sectors of the New England Region's economy were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the regional economy. For example, in 2018, the ship and boat building sector in the New England Region accounted for $1.5 billion in payroll.

Tables | New England Region

2019 Economic Impacts of the New England Seafood Industry (jobs, thousands of dollars)

		With Imports				Without Imports			
	Landings Revenue	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Connecticut	16,600	3,069	589,593	123,125	205,702	813	57,106	19,423	27,153
Maine	657,033	45,674	3,641,818	1,076,489	1,606,570	38,264	2,332,580	800,582	1,148,488
Massachusetts	681,044	148,437	16,334,748	4,044,374	6,273,163	75,604	3,382,243	1,262,772	1,706,938
New Hampshire	39,550	6,155	837,995	204,694	321,307	2,746	183,008	67,162	92,093
Rhode Island	109,306	8,024	886,930	239,748	365,973	5,580	377,124	137,080	191,798

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	1,035,995	1,125,527	1,271,021	1,161,953	1,242,803	1,278,017	1,431,066	1,334,134	1,453,944	1,503,532
Finfish	167,943	190,565	219,605	179,414	159,743	151,661	148,540	136,865	125,180	117,394
Shellfish and Other	868,053	934,961	1,051,416	982,539	1,083,060	1,126,357	1,282,525	1,197,269	1,328,764	1,386,138
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	397,817	418,118	426,233	456,652	563,255	618,839	667,261	564,599	627,677	634,830
Atlantic herring	21,009	24,753	28,549	31,381	27,947	24,280	28,613	26,560	22,798	9,098
Atlantic mackerel	3,459	295	3,480	1,738	3,111	3,355	3,149	3,390	2,974	1,704
Bluefin tuna	8,470	9,258	8,388	3,649	6,108	7,716	11,932	7,554	9,344	8,081
Cod and haddock	49,698	48,747	29,697	16,288	20,307	18,897	19,189	16,355	18,107	23,972
Flounders	27,951	31,178	35,616	32,560	31,116	29,506	28,335	26,835	21,800	21,159
Goosefish	14,064	19,791	19,675	13,575	14,101	14,628	15,042	15,300	12,147	11,902
Quahog clam	9,713	8,317	9,276	9,077	9,922	11,223	11,935	11,568	12,580	14,872
Sea scallop	266,305	353,106	389,980	366,305	297,793	287,478	305,566	372,158	410,927	433,821
Squid	14,788	22,889	18,187	15,547	21,412	24,264	41,861	31,539	39,011	46,337

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	607,038	619,939	691,103	634,506	659,379	608,160	624,066	578,811	596,618	516,729
Finfish	296,942	311,735	332,277	317,736	317,014	280,978	247,510	221,138	205,206	142,557
Shellfish and Other	310,096	308,204	358,826	316,771	342,365	327,182	376,556	357,674	391,412	374,172
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	116,035	125,215	149,134	149,275	147,169	146,379	158,832	136,469	147,139	126,970
Atlantic herring	141,955	174,291	190,558	203,673	197,908	171,779	135,156	104,578	93,100	24,702
Atlantic mackerel	16,904	913	9,680	9,049	12,934	10,140	12,080	12,488	11,958	5,478
Bluefin tuna	1,201	1,085	914	523	970	1,502	1,664	1,437	1,665	1,801
Cod and haddock	39,249	30,090	14,671	9,042	15,133	15,257	14,237	13,932	16,569	21,453
Flounders	14,564	17,950	18,408	16,367	14,270	12,510	9,143	10,048	7,902	8,739
Goosefish	12,378	14,699	16,406	14,320	14,557	15,272	15,984	21,072	19,314	19,373
Quahog clam	1,782	1,513	1,570	1,558	1,503	1,353	1,354	1,262	1,303	1,401
Sea scallop	32,987	35,339	39,251	32,093	23,470	23,343	24,918	36,503	44,435	45,808
Squid	21,722	27,909	16,155	14,576	28,783	23,698	39,377	35,851	41,235	54,703

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	3.43	3.34	2.86	3.06	3.83	4.23	4.20	4.14	4.27	5.00
Atlantic herring	0.15	0.14	0.15	0.15	0.14	0.14	0.21	0.25	0.24	0.37
Atlantic mackerel	0.20	0.32	0.36	0.19	0.24	0.33	0.26	0.27	0.25	0.31
Bluefin tuna	7.05	8.54	9.18	6.98	6.29	5.14	7.17	5.26	5.61	4.49
Cod and haddock	1.27	1.62	2.02	1.80	1.34	1.24	1.35	1.17	1.09	1.12
Flounders	1.92	1.74	1.93	1.99	2.18	2.36	3.10	2.67	2.76	2.42
Goosefish	1.14	1.35	1.20	0.95	0.97	0.96	0.94	0.73	0.63	0.61
Quahog clam	5.45	5.50	5.91	5.82	6.60	8.29	8.81	9.17	9.65	10.61
Sea scallop	8.07	9.99	9.94	11.41	12.69	12.32	12.26	10.20	9.25	9.47
Squid	0.68	0.82	1.13	1.07	0.74	1.02	1.06	0.88	0.95	0.85

2019 Economic Impacts of the New England Recreational Fishing Expenditures (thousands of dollars, trips)

	Trips	#Jobs	Sales	Income	Value Added
Connecticut	3,766	895	108,405	45,953	83,221
Maine	1,675	730	79,136	28,411	46,865
Massachusetts	7,422	2,602	313,363	150,864	217,343
New Hampshire	609	258	26,113	10,673	17,092
Rhode Island	3,739	891	94,558	46,904	68,279

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)[1]

Fishing Mode	Trip Expenditures
For-Hire	48,694
Private Boat	259,542
Shore	258,428
Total	566,665

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	566,665

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	1,317	1,156	1,171	1,043	1,080	924	1,104	916	832	NA
Non-Coastal	169	131	144	100	99	95	94	53	55	NA
Total Anglers	1,486	1,288	1,316	1,143	1,179	1,018	1,198	969	887	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	322	380	374	515	488	348	237	362	277	349
Private Boat	8,982	8,888	8,347	7,962	7,552	7,017	6,625	6,580	5,944	6,211
Shore	15,550	14,004	13,818	11,272	10,690	9,581	10,620	9,808	8,883	10,652
Total Trips	24,855	23,271	22,538	19,749	18,730	16,945	17,482	16,750	15,104	17,211

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic cod	H	957	967	690	842	408	59	167	87	16	55
	R	2,350	1,684	991	1,799	1,168	1,074	1,787	2,226	1,173	491
Atlantic mackerel	H	16,156	15,554	10,443	9,986	8,440	15,579	16,577	17,301	9,452	8,556
	R	1,447	1,867	1,456	716	1,253	3,194	2,027	3,138	1,779	2,015
Bluefin tuna	H	2	6	12	< 1	14	2	12	14	3	7
	R	< 1	11	5	< 1	< 1	7	7	55	< 1	3
Bluefish	H	3,279	1,799	4,744	5,720	2,383	1,293	1,676	1,601	614	1,316
	R	4,809	5,033	4,819	5,304	4,215	2,781	2,464	2,406	1,189	1,903
Little tunny	H	6	0	18	3	15	54	70	28	16	41
	R	42	85	202	26	1,034	159	811	285	341	153
Scup	H	5,405	5,261	5,421	8,170	6,655	4,394	4,693	5,167	8,714	7,724
	R	9,386	7,161	8,249	7,298	6,481	5,325	9,253	9,928	8,048	6,675
Striped bass	H	1,199	1,270	1,347	1,373	930	718	454	607	543	419
	R	7,808	6,872	6,635	10,837	8,942	8,971	11,905	23,539	17,602	11,876
Summer flounder	H	568	663	592	844	878	686	556	342	389	359
	R	1,854	3,143	2,138	2,765	3,101	1,947	2,153	1,705	1,806	2,610
Tautog	H	798	294	849	1,087	1,199	873	730	995	483	1,042
	R	1,488	1,369	2,481	3,081	5,498	3,045	3,124	3,906	3,420	4,156
Winter flounder	H	287	431	162	115	178	194	83	317	145	76
	R	187	305	73	53	134	214	296	133	61	53

[1] NA = not available.
[2] Connecticut and Rhode Island anglers estimates are not available for the non-coastal mode.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

Tables | Connecticut

2019 Economic Impacts of the Connecticut Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	3,069	589,593	123,125	205,702	813	57,106	19,423	27,153
Commercial Harvesters	419	29,438	8,074	12,441	419	29,438	8,074	12,441
Seafood Processors & Dealers	127	15,569	5,946	7,686	52	6,372	2,433	3,146
Importers	1,380	451,473	72,357	137,629	0	0	0	0
Seafood Wholesalers & Distributors	202	38,056	12,457	16,736	16	3,097	1,014	1,362
Retail	941	55,056	24,291	31,210	325	18,198	7,901	10,204

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	16,095	20,031	21,128	14,629	14,089	15,782	15,006	13,808	16,540	16,600
Finfish	3,646	4,726	5,352	5,022	4,257	5,179	3,791	3,551	4,206	3,893
Shellfish and Other	12,449	15,305	15,777	9,607	9,832	10,603	11,215	10,257	12,334	12,708
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	1,894	943	1,057	577	608	1,073	1,298	725	629	674
Goosefish	564	976	1,040	1,022	510	680	468	360	334	215
Loligo squid	473	694	1,861	1,257	1,354	1,631	2,199	996	2,246	3,558
Other flounders	40	25	62	182	88	161	250	168	312	99
Red hake	1,341	1,617	1,380	1,301	1,586	1,164	916	647	943	530
Scups or porgies	272	408	837	705	573	819	779	559	631	807
Sea scallop	9,458	13,007	12,005	7,220	7,219	7,039	5,881	7,205	7,727	6,505
Silver hake	76	89	88	115	104	112	109	88	61	35
Summer flounder	850	1,005	940	902	921	1,078	808	674	857	1,120
Whelks and conchs	452	482	625	295	347	487	997	585	1,019	1,386

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	6,698	7,403	8,940	7,957	7,509	9,390	12,148	10,170	11,473	9,191
Finfish	4,332	5,094	5,607	5,751	5,086	6,482	3,951	4,380	5,156	3,592
Shellfish and Other	2,366	2,310	3,333	2,205	2,423	2,908	8,196	5,790	6,317	5,599
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	442	199	248	127	127	205	254	130	111	112
Goosefish	358	630	765	967	493	605	432	398	532	321
Loligo squid	366	498	1,518	1,098	1,318	1,317	1,823	650	1,346	2,165
Other flounders	24	16	36	138	57	81	105	71	155	50
Red hake	1,973	2,041	1,848	1,647	2,037	1,320	948	746	1,010	705
Scups or porgies	324	644	907	1,195	811	983	942	748	793	1,141
Sea scallop	1,260	1,318	1,231	640	609	577	530	777	877	706
Silver hake	176	158	185	173	167	146	164	133	138	99
Summer flounder	308	401	315	284	253	287	191	135	177	291
Whelks and conchs	115	82	94	81	103	81	211	194	448	465

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	4.29	4.74	4.26	4.53	4.78	5.23	5.10	5.57	5.69	6.05
Goosefish	1.58	1.55	1.36	1.06	1.04	1.12	1.08	0.90	0.63	0.67
Loligo squid	1.29	1.39	1.23	1.15	1.03	1.24	1.21	1.53	1.67	1.64
Other flounders	1.67	1.56	1.72	1.32	1.55	1.98	2.39	2.38	2.01	1.98
Red hake	0.68	0.79	0.75	0.79	0.78	0.88	0.97	0.87	0.93	0.75
Scups or porgies	0.84	0.63	0.92	0.59	0.71	0.83	0.83	0.75	0.80	0.71
Sea scallop	7.51	9.87	9.75	11.29	11.85	12.20	11.09	9.27	8.81	9.21
Silver hake	0.43	0.56	0.47	0.66	0.62	0.77	0.66	0.66	0.44	0.35
Summer flounder	2.76	2.50	2.98	3.18	3.63	3.76	4.23	5.01	4.83	3.86
Whelks and conchs	3.94	5.91	6.67	3.65	3.37	6.04	4.72	3.01	2.27	2.98

2019 Economic Impacts of Connecticut Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	63	7,155	2,813	4,630
	Private Boat	385	50,081	21,027	38,024
	Shore	446	51,169	22,113	40,567
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		895	108,405	45,953	83,221

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	4,919
Private Boat	59,794
Shore	49,825
Total	114,537

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	114,537

Recreational Anglers by Residential Area (thousands of anglers)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	402	420	397	198	209	252	297	296	292	NA
Non-Coastal	0	0	0	0	0	0	0	0	0	NA
Out-of-State	112	98	67	43	64	57	88	102	96	NA
Total Anglers	514	518	464	240	273	309	385	398	389	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	42	45	27	64	62	77	38	36	38	41
Private Boat	1,807	1,688	1,776	1,730	1,693	1,576	1,629	1,337	1,422	1,453
Shore	1,847	1,746	1,931	1,712	1,885	2,192	2,563	2,565	2,083	2,272
Total Trips	3,696	3,479	3,734	3,506	3,641	3,844	4,230	3,937	3,543	3,766

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic cod	H	NA	NA	2	NA	NA	NA	19	2	2	26
	R	NA	NA	0	NA	NA	NA	12	< 1	< 1	12
Bluefish	H	1,482	697	1,399	3,476	1,179	501	554	586	312	670
	R	1,552	1,958	1,495	1,594	1,062	890	818	1,763	505	820
Hickory shad	H	4	65	61	15	92	0	36	19	2	NA
	R	0	0	0	4	29	7	40	22	40	NA
Little tunny	H	2	0	< 1	NA	2	0	< 1	14	3	< 1
	R	15	20	105	NA	17	3	45	50	158	20
Scup	H	2,217	1,940	1,840	1,879	1,189	1,198	1,352	1,695	3,071	2,491
	R	2,305	1,170	2,052	2,775	2,729	1,814	3,288	4,646	3,029	2,396
Striped bass	H	170	91	137	270	132	141	63	95	85	67
	R	1,416	1,571	892	2,312	740	1,761	1,208	4,994	7,514	2,287
Summer flounder	H	73	99	135	529	281	252	338	121	153	90
	R	801	778	650	1,684	1,544	1,075	1,409	811	877	1,065
Tautog	H	274	42	411	307	516	389	312	218	75	504
	R	576	72	1,287	1,276	2,908	1,260	1,809	1,472	1,014	1,718
White perch	H	NA	0	50	0	9	< 1	22	114	0	< 1
	R	NA	2	115	6	26	< 1	29	5	37	1
Winter flounder	H	39	44	52	0	1	45	1	< 1	2	0
	R	33	2	29	8	1	83	7	< 1	< 1	1

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Connecticut State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
286,874 (1.1%)	89,054 (1.1%)	1,528,867 (1.2%)	97.7 (1.4%)	143 (1.3%)	281	0.48

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	17	14	13	25	26	25	22	19	17
	Receipts	1,518	1,066	882	3,058	3,969	2,692	1,635	1,397	1,135
Seafood sales, retail	Firms	25	21	21	20	18	19	33	26	27
	Receipts	2,473	2,165	1,388	1,543	1,655	1,813	3,965	2,520	3,963

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	2	2	1	1	1	1	NA	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	NA	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	NA	NA	NA
Seafood sales, wholesale	Establishments	23	24	16	17	19	20	18	17	15
	Employees	216	212	187	178	172	211	158	153	155
	Payroll	9,219	9,224	8,237	7,920	8,174	20,558	18,205	6,966	7,286
Seafood sales, retail	Establishments	39	37	37	36	35	34	32	33	35
	Employees	204	171	233	218	244	230	261	230	227
	Payroll	5,563	4,824	6,349	6,344	7,380	7,533	8,742	8,264	8,327

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	12	11	8	7	9	8	10	9	11
	Employees	ds	ds	ds	ds	ds	ds	ds	0	11,373
	Payroll	ds	ds	ds	ds	ds	ds	ds	0	959,192
Deep Sea Freight Transportation	Establishments	10	11	14	11	11	11	12	10	9
	Employees	225	225	297	184	ds	164	162	146	97
	Payroll	29,407	41,302	37,711	28,513	26,891	26,880	27,211	25,371	19,429
Deep Sea Passenger Transportation	Establishments	1	1	1	NA	NA	NA	1	NA	NA
	Employees	ds	ds	ds	NA	NA	NA	ds	NA	NA
	Payroll	ds	ds	ds	NA	NA	NA	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	6	5	10	9	9	9	8	8	8
	Employees	ds	95	256	ds	ds	216	232	298	265
	Payroll	8,148	7,856	32,789	ds	ds	27,698	34,550	37,814	32,252
Port and Harbor Operations	Establishments	6	5	4	5	5	5	4	3	4
	Employees	122	34	ds	ds	ds	22	19	0	38
	Payroll	2,162	848	1,414	ds	ds	1,142	1,465	0	3,755
Marine Cargo Handling	Establishments	3	3	NA	1	1	1	2	4	4
	Employees	ds	ds	NA	ds	ds	ds	ds	0	85
	Payroll	ds	ds	NA	ds	ds	ds	ds	0	9,494
Navigational Services to Shipping	Establishments	6	5	2	2	4	3	1	3	3
	Employees	ds	5	ds	ds	3	2	ds	4	2
	Payroll	242	898	ds	ds	185	159	ds	175	265
Marinas	Establishments	129	128	130	130	128	125	125	116	125
	Employees	1,284	1,283	1,257	1,265	1,174	1,153	1,193	1,167	1,105
	Payroll	58,877	59,851	60,803	63,211	59,054	59,526	62,504	51,217	57,582

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

Tables | Maine

2019 Economic Impacts of the Maine Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	45,674	3,641,818	1,076,489	1,606,570	38,264	2,332,580	800,582	1,148,488
Commercial Harvesters	18,544	1,261,097	345,139	564,283	18,544	1,261,097	345,139	564,283
Seafood Processors & Dealers	3,473	287,008	115,230	147,238	2,866	236,857	95,095	121,511
Importers	3,205	1,048,510	168,044	319,632	0	0	0	0
Seafood Wholesalers & Distributors	1,753	197,856	70,973	92,355	1,082	122,128	43,809	57,006
Retail	18,698	847,346	377,102	483,062	15,772	712,498	316,539	405,688

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	458,447	434,805	530,398	478,881	595,694	628,954	735,803	577,459	645,338	657,033
Finfish	16,296	29,631	62,964	57,269	34,675	33,498	29,782	25,747	24,985	14,767
Shellfish and Other	442,151	405,174	467,435	421,611	561,019	595,456	706,022	551,712	620,353	642,265
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	318,299	334,702	342,529	371,078	461,851	502,565	541,318	439,300	491,574	491,643
Atlantic herring	8,966	14,396	14,494	15,492	16,212	13,526	19,488	17,768	16,701	5,979
Bloodworms	5,893	5,847	5,191	5,644	6,085	6,333	6,585	6,444	6,659	NA
Blue mussel	2,074	1,969	1,930	2,341	2,153	2,458	2,422	2,126	2,738	3,406
Cod and haddock	1,520	1,653	1,337	951	1,267	1,069	886	770	978	745
Goosefish	393	578	1,059	773	566	616	459	623	675	762
Ocean quahog clam	1,721	2,117	1,737	1,378	1,238	1,311	1,299	1,203	1,072	894
Pollock	1,502	1,929	2,527	2,562	2,878	1,965	1,663	1,182	988	639
Sea urchins	5,490	5,113	5,024	5,781	5,282	NA	6,619	6,118	6,211	5,836
Softshell clam	13,025	15,944	15,668	18,104	20,233	22,841	16,231	12,347	12,922	18,282

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	226,763	256,584	289,860	267,003	278,048	252,484	276,904	231,220	252,171	181,315
Finfish	64,800	102,710	99,087	105,521	110,682	92,216	86,720	72,728	72,258	26,795
Shellfish and Other	161,963	153,874	190,773	161,482	167,365	160,268	190,183	158,492	179,913	154,520
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	96,244	104,957	127,464	128,016	124,941	122,686	132,750	112,169	121,226	101,940
Atlantic herring	58,753	97,066	92,528	98,769	103,530	86,441	78,425	65,485	62,272	13,638
Bloodworms	534	526	457	470	448	401	413	403	415	NA
Blue mussel	2,589	2,810	2,427	2,282	2,270	2,401	1,745	1,233	1,674	1,965
Cod and haddock	869	835	536	400	685	658	489	449	747	459
Goosefish	404	533	1,075	874	633	740	542	883	1,149	1,292
Ocean quahog clam	549	645	698	557	438	416	367	346	295	233
Pollock	1,640	2,325	2,666	2,227	2,319	1,381	1,049	848	818	488
Sea urchins	2,592	2,407	1,904	1,988	1,958	NA	2,058	1,956	2,045	1,707
Softshell clam	2,087	2,383	2,260	2,297	2,080	1,891	1,560	1,411	1,468	1,606

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	3.31	3.19	2.69	2.90	3.70	4.10	4.08	3.92	4.06	4.82
Atlantic herring	0.15	0.15	0.16	0.16	0.16	0.16	0.25	0.27	0.27	0.44
Bloodworms	11.03	11.12	11.36	12.00	13.59	15.80	15.93	15.99	16.04	NA
Blue mussel	0.80	0.70	0.80	1.03	0.95	1.02	1.39	1.73	1.64	1.73
Cod and haddock	1.75	1.98	2.50	2.38	1.85	1.62	1.81	1.72	1.31	1.63
Goosefish	0.97	1.09	0.99	0.88	0.89	0.83	0.85	0.71	0.59	0.59
Ocean quahog clam	3.13	3.28	2.49	2.47	2.82	3.15	3.54	3.48	3.63	3.84
Pollock	0.92	0.83	0.95	1.15	1.24	1.42	1.58	1.39	1.21	1.31
Sea urchins	2.12	2.12	2.64	2.91	2.70	NA	3.22	3.13	3.04	3.42
Softshell clam	6.24	6.69	6.93	7.88	9.73	12.08	10.40	8.75	8.81	11.39

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of Maine Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	85	7,975	2,775	4,636
	Private Boat	119	14,311	4,801	8,080
	Shore	526	56,850	20,835	34,148
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		730	79,136	28,411	46,865

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	4,832
Private Boat	13,742
Shore	41,878
Total	60,452

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	60,452

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	122	85	116	102	79	67	114	114	57	NA
Non-Coastal	9	7	6	4	5	4	13	10	2	NA
Out-of-State	159	107	126	129	129	74	110	145	71	NA
Total Anglers	290	198	248	235	213	145	237	269	130	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	24	23	23	30	27	23	17	16	29	26
Private Boat	857	892	788	821	711	660	664	650	575	562
Shore	1,177	856	958	1,045	1,239	1,022	1,268	1,082	1,022	1,087
Total Trips	2,058	1,771	1,768	1,896	1,976	1,705	1,948	1,748	1,626	1,675

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American shad	H	0	0	0	0	6	6	4	4	4	0
	R	20	15	43	5	0	50	20	40	41	92
Atlantic cod	H	21	98	48	110	70	3	4	< 1	< 1	9
	R	97	309	207	157	147	225	148	127	82	67
Atlantic mackerel	H	3,402	5,416	3,917	2,268	2,331	3,172	4,929	1,934	2,698	2,670
	R	643	1,215	739	214	603	488	963	215	154	605
Blue shark[4]	H	NA	0	0	0	0	0	0	NA	0	0
	R	NA	24	7	36	20	35	2	NA	10	6
Bluefin tuna[5]	H	0	0	0	0	0	0	0	0	0	0
	R	0	0	0	0	0	0	0	0	0	0
Bluefish	H	26	2	22	67	< 1	1	< 1	< 1	NA	NA
	R	22	10	144	65	0	0	< 1	0	NA	NA
Haddock	H	5	25	6	13	9	36	45	62	98	75
	R	10	8	30	94	212	122	166	182	88	123
Pollock	H	133	206	122	267	371	194	82	123	139	110
	R	289	493	291	839	441	310	206	134	239	249
Striped bass	H	37	49	31	73	86	14	14	22	16	38
	R	522	453	657	985	1,023	824	2,162	2,719	2,174	1,525
Winter flounder	H	NA	NA	NA	0	0	NA	0	12	NA	15
	R	NA	NA	NA	2	17	NA	47	0	NA	19

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[4] Blue shark include blue shark and albacore.
[5] Bluefin tuna include bluefin tuna and blue shark.

2018 Maine State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
117,341 (0.4%)	41,727 (0.5%)	516,240 (0.4%)	23.1 (0.3%)	37.5 (0.3%)	65.5	27.83

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	59	51	51	36	37	32	31	32	36
	Receipts	4,480	3,077	3,294	2,757	4,142	2,583	3,070	2,715	3,676
Seafood sales, retail	Firms	47	48	46	49	57	50	47	54	39
	Receipts	5,835	4,608	4,492	4,200	4,664	5,848	7,586	5,814	5,442

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	27	28	29	28	30	32	27	22	24
	Employees	594	500	492	376	546	552	509	494	546
	Payroll	12,851	10,353	12,011	11,797	18,713	18,506	18,774	16,933	18,587
Seafood sales, wholesale	Establishments	164	152	136	150	142	146	150	146	148
	Employees	1,153	1,109	1,047	1,340	1,047	1,123	1,174	1,165	1,255
	Payroll	39,915	38,412	40,734	46,782	40,392	42,337	49,043	52,014	55,388
Seafood sales, retail	Establishments	51	51	48	51	54	60	59	53	55
	Employees	176	177	215	243	235	237	229	209	197
	Payroll	5,126	5,108	6,902	7,618	7,558	9,601	9,162	9,890	8,475

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	75	76	76	79	84	84	83	82	81
	Employees	ds	ds	ds	ds	ds	6,654	7,091	6,787	6,856
	Payroll	ds	ds	ds	ds	ds	418,591	422,525	397,918	423,509
Deep Sea Freight Transportation	Establishments	1	NA	NA	NA	NA	NA	NA	NA	NA
	Employees	ds	NA	NA	NA	NA	NA	NA	NA	NA
	Payroll	ds	NA	NA	NA	NA	NA	NA	NA	NA
Deep Sea Passenger Transportation	Establishments	1	1	NA	NA	NA	NA	NA	NA	NA
	Employees	ds	ds	NA	NA	NA	NA	NA	NA	NA
	Payroll	ds	ds	NA	NA	NA	NA	NA	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	4	4	3	3	3	3	3	3	3
	Employees	28	ds	ds	ds	ds	17	ds	0	12
	Payroll	1,067	1,105	ds	ds	ds	1,071	ds	0	1,102
Port and Harbor Operations	Establishments	1	1	6	3	3	3	3	4	3
	Employees	ds	ds	ds	2	ds	4	ds	0	33
	Payroll	ds	ds	ds	130	113	142	ds	0	1,599
Marine Cargo Handling	Establishments	2	2	1	2	2	2	4	3	3
	Employees	ds	ds	ds	ds	ds	ds	20	0	32
	Payroll	ds	ds	ds	ds	ds	ds	1,857	0	1,823
Navigational Services to Shipping	Establishments	13	13	13	14	14	13	13	15	14
	Employees	68	63	65	86	75	77	65	61	77
	Payroll	4,928	4,776	4,730	5,660	5,243	4,752	3,852	4,477	5,000
Marinas	Establishments	86	84	80	79	79	80	79	77	75
	Employees	395	349	428	403	435	430	471	376	378
	Payroll	14,699	15,426	17,102	17,476	19,694	20,400	22,618	18,912	19,728

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

Tables | Massachusetts

2019 Economic Impacts of the Massachusetts Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	148,437	16,334,748	4,044,374	6,273,163	75,604	3,382,243	1,262,772	1,706,938
Commercial Harvesters	13,641	1,244,436	399,226	583,806	13,641	1,244,436	399,226	583,806
Seafood Processors & Dealers	15,408	2,352,924	897,075	1,166,354	3,704	565,642	215,657	280,391
Importers	29,745	9,731,310	1,559,628	2,966,529	0	0	0	0
Seafood Wholesalers & Distributors	5,414	1,013,014	331,036	449,166	1,388	259,651	84,850	115,128
Retail	84,230	1,993,064	857,409	1,107,308	56,872	1,312,514	563,039	727,613

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	478,132	571,278	615,122	562,193	522,314	523,410	551,877	605,213	647,824	681,044
Finfish	121,664	126,973	118,925	87,251	93,123	88,753	91,642	86,004	74,277	76,326
Shellfish and Other	356,468	444,306	496,198	474,941	429,191	434,657	460,235	519,210	573,547	604,718
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	50,384	53,365	53,360	58,663	68,336	78,290	82,383	81,193	88,845	95,456
Atlantic herring	10,251	8,802	11,529	10,750	9,432	8,787	7,589	7,019	5,069	2,685
Atlantic mackerel	1,487	137	654	1,223	2,421	1,952	2,600	2,775	1,579	1,134
Cod and haddock	45,206	43,379	25,847	14,037	18,065	17,433	17,735	15,131	16,477	22,798
Eastern oyster	8,227	9,080	12,072	13,896	19,575	22,679	22,512	28,387	28,387	30,147
Flounders	20,048	22,124	25,191	20,780	18,183	18,118	18,317	18,505	14,762	12,483
Goosefish	9,922	13,429	13,578	8,869	10,028	10,251	11,291	11,833	8,453	8,101
Ocean quahog clam	8,974	NA	NA	NA	9,814	9,063	NA	10,719	NA	8,233
Other clams	11,971	14,424	20,026	23,675	22,221	22,769	24,017	25,056	25,364	24,645
Sea scallop	252,292	330,954	364,902	334,221	271,373	264,741	281,191	331,278	373,829	397,180

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	284,078	264,891	294,923	261,451	272,926	259,464	244,388	242,826	241,753	234,198
Finfish	188,548	164,278	178,295	150,372	161,303	146,249	127,170	115,257	102,156	86,061
Shellfish and Other	95,530	100,613	116,628	111,079	111,622	113,215	117,218	127,569	139,597	148,136
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	12,772	13,385	14,486	15,159	15,313	16,450	17,785	16,493	17,697	17,029
Atlantic herring	71,922	66,970	81,781	74,992	77,873	70,888	47,149	31,687	27,078	9,873
Atlantic mackerel	12,156	515	4,131	7,279	10,755	7,059	10,556	10,403	7,534	3,575
Cod and haddock	36,457	27,153	13,028	8,107	13,977	14,393	13,445	13,280	15,378	20,760
Eastern oyster	213	227	308	328	444	504	494	618	651	687
Flounders	11,170	13,707	14,264	11,541	9,050	8,412	6,144	7,456	6,178	5,945
Goosefish	8,887	10,142	11,567	9,498	10,533	11,084	12,476	17,181	14,034	14,025
Ocean quahog clam	15,645	NA	NA	NA	13,422	13,340	NA	14,190	NA	11,070
Other clams	9,052	12,514	18,378	21,787	20,195	19,567	20,390	19,246	17,895	16,523
Sea scallop	31,160	33,093	36,722	29,253	21,316	21,491	22,844	32,488	40,382	41,851

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	3.94	3.99	3.68	3.87	4.46	4.76	4.63	4.92	5.02	5.61
Atlantic herring	0.14	0.13	0.14	0.14	0.12	0.12	0.16	0.22	0.19	0.27
Atlantic mackerel	0.12	0.27	0.16	0.17	0.23	0.28	0.25	0.27	0.21	0.32
Cod and haddock	1.24	1.60	1.98	1.73	1.29	1.21	1.32	1.14	1.07	1.10
Eastern oyster	38.64	39.99	39.19	42.41	44.12	44.98	45.58	45.96	43.63	43.90
Flounders	1.79	1.61	1.77	1.80	2.01	2.15	2.98	2.48	2.39	2.10
Goosefish	1.12	1.32	1.17	0.93	0.95	0.92	0.90	0.69	0.60	0.58
Ocean quahog clam	0.57	NA	NA	NA	0.73	0.68	NA	0.76	NA	0.74
Other clams	1.32	1.15	1.09	1.09	1.10	1.16	1.18	1.30	1.42	1.49
Sea scallop	8.10	10.00	9.94	11.43	12.73	12.32	12.31	10.20	9.26	9.49

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of Massachusetts Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	411	45,799	17,811	29,317
	Private Boat	828	106,862	52,472	73,194
	Shore	1,362	160,702	80,582	114,831
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		2,602	313,363	150,864	217,343

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	28,143
Private Boat	139,681
Shore	118,275
Total	286,099

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	286,099

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	586	490	502	546	582	428	476	350	335	NA
Non-Coastal	152	115	130	77	82	85	73	38	45	NA
Out-of-State	433	293	309	275	532	199	289	211	169	NA
Total Anglers	1,171	897	941	898	1,196	711	837	599	550	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	151	197	227	260	238	117	95	224	130	199
Private Boat	5,027	4,721	4,380	3,898	3,695	3,064	3,069	3,390	2,673	2,511
Shore	8,980	8,544	7,614	5,967	4,875	4,102	4,080	4,161	3,903	4,713
Total Trips	14,158	13,462	12,221	10,125	8,808	7,282	7,244	7,775	6,705	7,422

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic bonito	H	4	15	12	0	31	12	1	3	24	68
	R	15	0	< 1	2	42	13	13	< 1	378	24
Atlantic cod	H	782	697	486	544	252	5	56	48	5	5
	R	1,969	1,006	533	1,382	806	317	1,145	1,728	605	204
Atlantic mackerel	H	12,007	6,911	4,165	5,114	4,334	11,514	9,199	12,295	4,983	4,412
	R	744	261	403	417	524	2,385	684	2,689	1,414	1,235
Bluefish	H	1,361	684	977	1,520	739	693	977	595	182	266
	R	3,060	1,877	1,808	1,644	2,888	479	1,059	528	532	471
Haddock	H	318	123	189	189	153	74	741	1,465	504	602
	R	63	41	215	583	666	213	2,487	2,048	703	251
Scup	H	2,349	2,125	2,549	3,783	2,802	1,977	1,791	2,086	3,266	1,961
	R	5,687	4,506	4,527	2,854	2,302	1,906	3,004	3,419	3,223	1,985
Striped bass	H	808	873	1,011	659	524	485	230	392	389	196
	R	5,090	4,036	3,629	4,670	6,425	4,471	6,299	12,866	5,377	5,499
Summer flounder	H	149	184	233	80	256	213	106	65	67	55
	R	460	594	560	144	643	242	267	110	138	224
Tautog	H	154	173	96	240	444	188	74	636	78	169
	R	533	817	348	1,012	2,168	670	261	1,889	399	1,191
Winter flounder	H	237	365	110	115	168	134	71	285	126	55
	R	134	299	35	40	101	113	230	125	52	28

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Massachusett State Economy (% of national total)[1]

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[2]
573,754 (2.2%)	180,307 (2.3%)	3,323,852 (2.5%)	228 (3.2%)	325 (3%)	564	ds

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	27	36	25	28	33	38	38	40	51
	Receipts	2,082	2,433	1,699	1,857	2,356	4,474	3,800	4,462	4,757
Seafood sales, retail	Firms	61	66	65	51	56	52	46	53	65
	Receipts	6,287	7,640	5,213	3,842	5,782	5,154	4,566	5,153	5,147

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	44	44	39	40	42	41	37	36	34
	Employees	2,159	2,214	1,638	1,755	1,819	1,948	1,967	2,153	2,227
	Payroll	107,635	112,399	74,541	87,153	99,445	108,090	108,850	134,273	131,856
Seafood sales, wholesale	Establishments	149	141	140	142	130	129	128	133	129
	Employees	1,591	2,013	1,841	1,910	1,859	1,808	1,865	1,753	1,890
	Payroll	83,467	94,105	100,801	104,637	101,512	102,009	107,494	108,426	112,782
Seafood sales, retail	Establishments	112	106	114	114	114	106	107	101	99
	Employees	584	576	576	708	647	641	690	657	632
	Payroll	16,495	16,037	15,776	18,304	19,516	20,201	21,909	21,734	22,756

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	37	37	40	41	43	39	38	34	37
	Employees	535	445	446	463	623	576	525	495	680
	Payroll	20,196	22,066	23,195	23,615	31,451	31,153	30,808	28,965	38,046
Deep Sea Freight Transportation	Establishments	8	7	9	8	9	8	8	8	7
	Employees	313	381	ds	ds	ds	ds	ds	0	57
	Payroll	36,069	38,797	ds	ds	ds	ds	ds	0	5,493
Deep Sea Passenger Transportation	Establishments	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Employees	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Payroll	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	12	10	14	8	12	12	10	7	5
	Employees	ds	ds	ds	22	25	36	34	35	33
	Payroll	ds	ds	3,266	1,352	1,478	2,766	3,026	2,542	4,020
Port and Harbor Operations	Establishments	8	6	5	3	1	1	1	NA	NA
	Employees	86	95	35	ds	ds	ds	ds	NA	NA
	Payroll	2,662	3,035	1,519	ds	ds	ds	ds	NA	NA
Marine Cargo Handling	Establishments	2	2	4	3	3	2	2	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Navigational Services to Shipping	Establishments	9	9	8	11	9	8	10	16	16
	Employees	150	139	120	94	83	88	106	156	162
	Payroll	9,413	6,980	5,965	6,578	6,645	7,311	8,984	10,898	14,837
Marinas	Establishments	175	176	172	178	177	178	175	176	173
	Employees	1,150	1,125	977	1,054	1,161	1,076	1,143	1,230	1,215
	Payroll	57,002	58,251	48,657	55,053	57,797	63,422	67,077	68,756	67,405

[1] ds = Data are suppressed.
[2] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[3] NA = Not applicable.

Tables | New Hampshire

2019 Economic Impacts of the New Hampshire Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	6,155	837,995	204,694	321,307	2,746	183,008	67,162	92,093
Commercial Harvesters	1,001	69,366	19,605	30,446	1,001	69,366	19,605	30,446
Seafood Processors & Dealers	431	55,257	21,713	27,997	230	29,408	11,556	14,900
Importers	1,602	524,019	83,984	159,744	0	0	0	0
Seafood Wholesalers & Distributors	336	50,631	17,848	23,487	89	13,426	4,733	6,228
Retail	2,786	138,722	61,545	79,633	1,427	70,809	31,269	40,519

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	20,597	23,482	23,236	20,188	24,288	27,794	33,480	35,691	39,121	39,550
Finfish	5,101	6,119	5,541	2,851	1,855	2,514	2,484	3,123	3,040	2,812
Shellfish and Other	15,496	17,363	17,695	17,337	22,433	25,280	30,996	32,567	36,080	36,738
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	14,836	16,343	17,169	16,602	20,751	24,544	30,373	32,365	35,673	36,021
Atlantic cod	2,186	2,500	1,750	546	571	93	109	150	209	244
Atlantic herring	375	208	349	232	NA	586	NA	827	436	NA
Flounder	103	102	217	106	NA	156	191	269	198	124
Goosefish	212	207	153	186	NA	351	338	422	355	312
Haddock	29	35	91	20	18	8	14	22	107	133
Hake	237	445	475	373	NA	261	270	186	278	288
Pollock	839	1,355	1,224	1,133	860	356	207	189	284	269
Sea scallop	3	26	143	296	345	398	284	66	155	385
Spiny dogfish	291	451	419	94	NA	NA	NA	178	NA	NA

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	11,802	12,311	12,145	8,247	9,117	11,093	7,937	10,799	10,119	13,225
Finfish	6,993	7,108	7,487	3,961	1,203	5,168	1,081	4,982	2,995	5,993
Shellfish and Other	4,809	5,203	4,659	4,285	7,913	5,926	6,856	5,817	7,124	7,232
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	3,648	3,919	4,229	3,818	4,375	4,722	5,782	5,645	6,199	6,094
Atlantic cod	1,226	1,286	725	230	263	45	55	71	89	98
Atlantic herring	2,830	1,514	2,391	1,579	NA	3,999	NA	2,829	1,511	NA
Flounder	58	70	133	61	NA	97	86	119	98	61
Goosefish	172	153	126	162	NA	314	331	549	540	577
Haddock	18	19	43	9	10	6	9	18	80	107
Hake	322	587	1,136	393	NA	309	330	267	288	307
Pollock	1,041	1,732	1,049	982	629	270	98	108	186	175
Sea scallop	NA	3	12	25	27	31	24	5	12	36
Spiny dogfish	1,207	1,643	1,788	508	NA	NA	NA	858	NA	NA

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	4.07	4.17	4.06	4.35	4.74	5.20	5.25	5.73	5.75	5.91
Atlantic cod	1.78	1.94	2.41	2.38	2.17	2.09	1.97	2.11	2.36	2.48
Atlantic herring	0.13	0.14	0.15	0.15	NA	0.15	NA	0.29	0.29	NA
Flounder	1.78	1.46	1.63	1.74	NA	1.61	2.21	2.27	2.01	2.04
Goosefish	1.23	1.36	1.21	1.15	NA	1.12	1.02	0.77	0.66	0.54
Haddock	1.57	1.91	2.14	2.28	1.74	1.41	1.55	1.26	1.34	1.24
Hake	0.74	0.76	0.42	0.95	NA	0.85	0.82	0.70	0.96	0.94
Pollock	0.81	0.78	1.17	1.15	1.37	1.32	2.12	1.74	1.53	1.54
Sea scallop	8.82	10.35	11.68	11.93	12.68	12.83	12.02	13.19	13.19	10.77
Spiny dogfish	0.24	0.27	0.23	0.19	NA	NA	NA	0.21	NA	NA

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of New Hampshire Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	95	9,235	3,532	5,584
	Private Boat	65	6,941	3,175	4,632
	Shore	98	9,937	3,965	6,876
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		258	26,113	10,673	17,092

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	6,064
Private Boat	8,845
Shore	7,717
Total	22,626

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	22,626

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	46	56	58	68	50	54	69	24	39	NA
Non-Coastal	7	10	9	19	11	6	8	4	8	NA
Out-of-State	33	30	54	66	58	54	57	19	41	NA
Total Anglers	86	96	121	153	120	115	134	48	88	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	65	76	55	114	110	82	38	51	38	48
Private Boat	313	341	375	404	395	407	438	430	299	301
Shore	410	393	427	389	449	492	585	492	339	260
Total Trips	788	810	858	906	954	981	1,061	972	676	609

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic cod	H	148	165	97	188	66	3	12	32	< 1	3
	R	247	333	248	259	209	499	423	370	482	202
Atlantic mackerel	H	746	3,227	2,360	2,537	1,768	880	2,431	3,031	1,753	1,474
	R	60	391	312	51	125	315	362	232	208	163
Bluefin tuna[4]	H	0	0	< 1	NA	NA	NA	NA	NA	< 1	3
	R	< 1	3	0	NA	NA	NA	NA	NA	0	0
Bluefish	H	4	1	33	0	2	8	< 1	NA	NA	NA
	R	3	3	16	< 1	9	0	0	NA	NA	NA
Haddock	H	75	94	101	107	104	153	195	165	263	212
	R	18	25	177	404	582	1,062	553	441	314	265
Other flounders[5]	H	0	0	1	0	0	NA	0	0	0	0
	R	5	3	2	10	< 1	NA	3	5	< 1	1
Pollock	H	135	186	119	228	268	149	213	258	87	70
	R	197	243	282	469	459	1,273	294	321	147	157
Striped bass	H	21	54	37	63	17	10	18	38	13	15
	R	161	191	164	295	316	262	819	1,418	356	435
Winter flounder	H	5	21	< 1	0	8	15	8	11	17	6
	R	17	4	5	3	13	18	12	8	9	6

[1] 'NA' = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[4] Bluefin tuna include bluefin tuna and blue shark.
[5] Unidentified flounder include flatfish order and unidentified flounder or sole.

2018 New Hampshire State Economy (% of national total)[1]

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[2]
108,327 (0.4%)	38,375 (0.5%)	612,420 (0.5%)	31.6 (0.4%)	47.2 (0.4%)	83.8	ds

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)[1]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	3	7	7	6	6	4	4	5	6
	Receipts	687	856	1,166	1,239	1,019	1,411	1,435	1,416	1,128
Seafood sales, retail	Firms	11	11	12	15	15	9	8	9	9
	Receipts	1,502	2,152	2,096	1,861	2,419	1,722	899	1,134	1,200

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	8	8	8	7	6	8	6	5	5
	Employees	292	231	229	225	ds	182	ds	0	221
	Payroll	10,971	12,010	12,181	13,751	ds	11,160	ds	0	13,941
Seafood sales, wholesale	Establishments	8	7	8	9	8	9	9	9	10
	Employees	80	84	99	113	106	108	95	100	102
	Payroll	4,171	4,123	5,738	4,562	4,271	4,543	5,480	5,863	6,105
Seafood sales, retail	Establishments	12	16	9	9	9	9	9	7	6
	Employees	102	88	48	45	ds	57	58	138	44
	Payroll	2,296	1,934	870	966	1,699	1,659	1,397	2,900	1,163

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	7	7	7	7	8	6	7	6	6
	Employees	ds	ds	ds	ds	ds	181	190	174	217
	Payroll	ds	ds	ds	ds	ds	9,800	9,413	11,357	12,563
Deep Sea Freight Transportation	Establishments	1	1	1	1	1	NA	NA	NA	NA
	Employees	ds	ds	ds	ds	ds	NA	NA	NA	NA
	Payroll	ds	ds	ds	ds	ds	NA	NA	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	NA	NA	1	NA	NA	NA	NA	NA	NA
	Employees	NA	NA	ds	NA	NA	NA	NA	NA	NA
	Payroll	NA	NA	ds	NA	NA	NA	NA	NA	NA
Port and Harbor Operations	Establishments	NA	NA	2	2	1	1	1	NA	NA
	Employees	NA	NA	ds	ds	ds	ds	ds	NA	NA
	Payroll	NA	NA	ds	ds	ds	ds	ds	NA	NA
Navigational Services to Shipping	Establishments	2	2	3	3	3	3	2	3	3
	Employees	ds	ds	ds	ds	ds	18	ds	0	17
	Payroll	ds	ds	ds	ds	ds	1,920	ds	0	1,973
Marinas	Establishments	35	34	31	35	35	35	35	31	31
	Employees	135	139	131	155	144	153	162	145	169
	Payroll	6,920	7,090	6,927	8,031	8,043	8,788	10,070	9,282	10,483

[1] ds = Data are suppressed.
[2] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[3] NA = Not applicable.

Tables | Rhode Island

2019 Economic Impacts of the Rhode Island Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	8,024	886,930	239,748	365,973	5,580	377,124	137,080	191,798
Commercial Harvesters	2,625	189,141	58,632	90,357	2,625	189,141	58,632	90,357
Seafood Processors & Dealers	408	50,457	19,552	25,408	359	44,373	17,195	22,345
Importers	1,295	423,566	67,885	129,122	0	0	0	0
Seafood Wholesalers & Distributors	402	57,008	20,199	26,578	146	20,694	7,332	9,648
Retail	3,294	166,758	73,479	94,508	2,451	122,916	53,920	69,448

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	62,724	75,930	81,136	86,063	86,419	82,077	94,899	101,962	105,122	109,306
Finfish	21,235	23,116	26,823	27,020	25,834	21,716	20,841	18,440	18,672	19,596
Shellfish and Other	41,489	52,814	54,312	59,043	60,586	60,361	74,057	83,523	86,450	89,709
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	12,404	12,765	12,119	9,732	11,709	12,368	11,889	11,016	10,957	11,036
Atlantic herring	1,417	1,343	2,174	4,907	2,303	1,373	1,525	939	572	427
Atlantic mackerel	1,886	100	2,804	339	309	1,074	448	286	1,287	389
Goosefish	2,973	4,600	3,844	2,725	2,996	2,730	2,486	2,062	2,330	2,512
Other flounders	590	805	1,025	2,125	2,948	1,774	1,465	1,546	626	375
Quahog clam	3,293	3,919	5,169	4,727	5,099	5,453	5,612	5,011	4,798	5,364
Scups and porgies	2,833	3,312	3,904	3,666	4,118	4,278	4,053	3,078	2,740	2,571
Sea scallop	2,156	6,834	9,191	18,639	10,273	8,079	10,242	22,785	22,050	24,517
Squid	12,590	20,381	12,744	13,207	17,718	20,288	33,938	28,333	32,571	31,073
Summer flounder	5,534	6,408	6,937	6,751	7,298	6,107	5,480	4,299	4,710	5,617

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	77,696	78,749	85,234	89,850	91,780	75,728	82,689	83,797	81,102	78,801
Finfish	32,270	32,545	41,801	52,130	38,739	30,864	28,587	23,792	22,640	20,117
Shellfish and Other	45,427	46,204	43,433	37,719	53,041	44,865	54,102	60,005	58,462	58,684
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	2,929	2,754	2,706	2,156	2,413	2,316	2,260	2,031	1,906	1,795
Atlantic herring	8,449	8,729	13,839	28,330	16,505	10,431	9,539	4,535	2,159	1,180
Atlantic mackerel	4,356	162	5,497	714	539	1,906	1,143	695	3,994	1,295
Goosefish	2,556	3,242	2,873	2,818	2,898	2,529	2,202	2,061	3,059	3,159
Other flounders	351	614	663	1,367	2,158	1,057	766	938	215	122
Quahog clam	599	666	903	784	764	684	660	546	512	518
Scups and porgies	4,298	6,336	6,311	7,346	6,949	6,794	6,809	5,973	4,714	4,584
Sea scallop	267	690	944	1,646	841	677	897	2,310	2,482	2,714
Squid	19,799	25,997	11,689	12,609	24,938	20,495	32,914	33,776	34,871	32,012
Summer flounder	2,289	2,824	2,409	2,193	2,056	1,716	1,306	896	1,023	1,661

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	4.24	4.64	4.48	4.51	4.85	5.34	5.26	5.42	5.75	6.15
Atlantic herring	0.17	0.15	0.16	0.17	0.14	0.13	0.16	0.21	0.26	0.36
Atlantic mackerel	0.43	0.62	0.51	0.47	0.57	0.56	0.39	0.41	0.32	0.30
Goosefish	1.16	1.42	1.34	0.97	1.03	1.08	1.13	1.00	0.76	0.80
Other flounders	1.68	1.31	1.55	1.55	1.37	1.68	1.91	1.65	2.91	3.08
Quahog clam	5.50	5.89	5.72	6.03	6.67	7.98	8.51	9.17	9.37	10.35
Scups and porgies	0.66	0.52	0.62	0.50	0.59	0.63	0.60	0.52	0.58	0.56
Sea scallop	8.07	9.90	9.73	11.32	12.21	11.94	11.42	9.86	8.88	9.03
Squid	0.64	0.78	1.09	1.05	0.71	0.99	1.03	0.84	0.93	0.97
Summer flounder	2.42	2.27	2.88	3.08	3.55	3.56	4.20	4.80	4.61	3.38

2019 Economic Impacts of Rhode Island Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	79	7,684	3,030	4,626
	Private Boat	327	35,657	18,861	26,397
	Shore	485	51,218	25,012	37,256
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		891	94,558	46,904	68,279

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	4,737
Private Boat	37,481
Shore	40,733
Total	82,951

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	82,951

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	161	105	99	129	160	123	149	132	109	NA
Non-Coastal	0	0	0	0	0	0	0	0	0	NA
Out-of-State	225	190	169	255	304	175	243	194	233	NA
Total Anglers	387	296	268	383	464	298	392	326	342	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	41	39	41	47	52	50	49	35	43	34
Private Boat	978	1,247	1,028	1,109	1,058	1,310	825	774	974	1,384
Shore	3,136	2,464	2,888	2,159	2,241	1,774	2,124	1,508	1,536	2,321
Total Trips	4,155	3,750	3,957	3,316	3,351	3,134	2,999	2,318	2,553	3,739

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic bonito	H	< 1	NA	< 1	9	1	1	0	10	11	33
	R	0	NA	0	11	9	5	23	< 1	26	35
Atlantic cod	H	6	7	57	< 1	19	49	77	5	9	12
	R	37	36	3	< 1	7	33	59	< 1	3	5
Black seabass	H	346	102	226	166	404	434	508	328	706	517
	R	433	489	2,145	1,623	1,981	1,405	2,319	1,867	2,671	3,436
Bluefish	H	406	414	2,312	658	463	90	145	419	120	380
	R	173	1,185	1,356	2,000	257	1,412	587	116	152	612
Scup	H	839	1,196	1,032	2,508	2,664	1,219	1,551	1,383	2,377	3,272
	R	1,394	1,486	1,670	1,669	1,451	1,604	2,961	1,863	1,796	2,294
Striped bass	H	162	202	131	308	172	67	128	60	39	104
	R	619	621	1,292	2,574	438	1,653	1,416	1,543	2,180	2,132
Summer flounder	H	346	380	224	235	340	222	113	156	169	214
	R	594	1,772	928	938	910	630	476	784	791	1,319
Tautog	H	370	79	341	540	239	296	344	141	330	369
	R	378	480	846	793	422	1,113	1,052	545	2,006	1,243
Winter flounder	H	5	0	0	NA	< 1	< 1	2	8	< 1	< 1
	R	3	< 1	3	NA	1	0	< 1	< 1	0	0
Yellowfin tuna[5]	H	NA	NA	NA	13	1	8	< 1	NA	NA	< 1
	R	NA	NA	NA	0	0	11	0	NA	NA	< 1

[1] NA = not available.
[2] Non-coastal data are not available because all of the state's residents are considered coastal county residents.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[5] Yellowfin tuna include yellowfin tuna and swordfish.

2018 Rhode Island's State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
83,145 (0.3%)	28,748 (0.4%)	442,449 (0.3%)	22.3 (0.3%)	34.5 (0.3%)	59.1	3.38

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	6	9	10	8	8	6	6	0	8
	Receipts	907	1,168	1,441	1,393	1,418	1,381	1,374	0	154
Seafood sales, retail	Firms	17	25	20	22	16	15	14	16	12
	Receipts	2,769	3,033	2,536	2,501	1,331	1,259	1,569	1,059	1,243

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	5	4	3	3	3	3	2	NA	NA
	Employees	193	178	ds	ds	ds	71	ds	NA	NA
	Payroll	6,096	5,544	ds	ds	ds	2,243	ds	NA	NA
Seafood sales, wholesale	Establishments	32	34	32	31	28	28	26	22	23
	Employees	204	230	278	182	188	182	164	130	131
	Payroll	9,815	10,264	13,064	8,412	8,763	8,140	8,567	7,308	7,261
Seafood sales, retail	Establishments	26	23	24	24	27	26	24	24	22
	Employees	113	109	111	113	114	113	100	106	112
	Payroll	2,309	2,232	2,388	2,610	2,608	2,925	2,932	2,971	3,052

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	29	30	37	33	33	33	30	27	26
	Employees	954	916	717	768	939	902	757	565	535
	Payroll	40,004	33,316	32,070	34,483	42,200	41,096	34,132	28,098	27,363
Deep Sea Freight Transportation	Establishments	2	2	2	1	1	2	2	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Deep Sea Passenger Transportation	Establishments	1	1	1	2	3	3	2	NA	NA
	Employees	ds	ds	ds	ds	ds	18	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	1,574	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	1	2	1	1	1	1	1	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Port and Harbor Operations	Establishments	1	1	5	2	3	3	3	3	3
	Employees	ds	ds	ds	ds	ds	18	14	19	20
	Payroll	ds	ds	ds	ds	ds	951	813	1,040	1,025
Marine Cargo Handling	Establishments	5	5	4	4	3	2	3	3	3
	Employees	ds	ds	ds	ds	ds	ds	244	0	97
	Payroll	ds	ds	ds	ds	ds	ds	6,495	0	5,795
Navigational Services to Shipping	Establishments	8	8	7	7	6	6	6	7	6
	Employees	ds	107	ds	ds	ds	69	81	83	72
	Payroll	3,955	4,002	3,272	ds	ds	4,209	3,771	4,578	4,502
Marinas	Establishments	72	71	67	71	65	72	71	63	74
	Employees	428	460	424	466	449	409	435	375	433
	Payroll	22,227	22,618	20,811	24,214	24,876	25,206	26,264	20,323	26,166

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

Mid-Atlantic Region

- Delaware
- Maryland
- New Jersey
- New York
- Virginia

Commercial fishermen pulling up black sea bass pot traps.
Photo: NOAA Fisheries/Noelle Olsen

MANAGEMENT CONTEXT

The Mid-Atlantic Region includes Delaware, Maryland, New Jersey, New York, and Virginia. Federal fisheries in this region are managed by the Mid-Atlantic Fishery Management Council (MAFMC) and NOAA Fisheries under seven fishery management plans (FMPs). Two of these FMPs are developed in conjunction with the New England Fishery Management Council (NEFMC). The MAFMC is the lead council for the Spiny Dogfish FMP; the NEFMC is the lead for the Monkfish FMP.

Mid-Atlantic Region FMPs

- Atlantic mackerel, squid and butterfish
- Atlantic bluefish
- Spiny dogfish (with the NEFMC)
- Summer flounder, scup and black sea bass
- Surfclam and ocean quahog
- Golden tilefish
- Monkfish (with the NEFMC)

Bluefish (Atlantic coast stock) and Atlantic mackerel (Gulf of Maine/Cape Hatteras stock) were the only stock/stock complexes in the Mid-Atlantic region listed as overfished in 2019; bluefish was added to the overfished list in 2019. Atlantic mackerel (Gulf of Maine/Cape Hatteras stock) was also determined to be experiencing overfishing in 2019; no other stock managed by the MAFMC was determined to be experiencing overfishing in 2019.

Catch Share Programs

Two catch share programs operate in the Mid-Atlantic: 1) Surfclam and Ocean Quahog IFQ Program, and 2) Golden Tilefish IFQ Program. Following is a description of these catch share programs and their performance. The landings revenues for these programs totaled $62.3 million (in inflation-adjusted 2018 dollars) in 2018.

Surfclam and Ocean Quahog IFQ Program: This program was implemented in 1990 to conserve the surfclam and quahog resource and stabilize harvest rates; simplify regulatory requirements to minimize public and private management costs; promote economic efficiency by bringing harvest capacity in line with processing and biological capacity; and create a management approach that is flexible and adaptive to short-term events or circumstances. The performance metrics for the surfclam and ocean quahog fisheries are presented separately here because these fisheries are prosecuted as independent fisheries despite being in the same catch share program. The 2018 key performance indicators of the surfclam program show that relative to the baseline period (the three-year period prior to implementation), landings, the number of active vessels, and inflation-adjusted landings revenue decreased, while quota and inflation-adjusted revenue per active vessel increased.

The 2018 key performance indicators of the quahog program show that relative to the baseline period, quota, landings, the number of active vessels, and inflation-adjusted landings revenue decreased, while inflation-adjusted revenue per active vessel increased.

Golden Tilefish IFQ Program: This program was implemented in 2009 to reduce over-capacity and eliminate problems associated with the race to fish golden tilefish. This IFQ program is unique because many key events occurred outside the traditional management process. Prior to the implementation of the IFQ program, fishermen crafted internal agreements that promoted cooperation. Their cooperative processes helped fishing businesses stay viable under new regulations, which laid the foundation for implementing the IFQ program. The 2018 key performance indicators of the program show that relative to the baseline period (the three-year period prior to implementation), quota, landings, the number of active vessels, and inflation-adjusted landings revenue decreased, while inflation-adjusted revenue per active vessel increased.

COMMERCIAL FISHERIES — MID-ATLANTIC REGION

In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries

section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

Key Mid-Atlantic Region Commercial Species

- American lobster
- Atlantic surf clam
- Blue crab
- Eastern oyster
- Menhaden
- Quahog clam
- Sea scallop
- Squid
- Striped bass
- Summer flounder

Economic Impacts

The premise behind economic impact modeling is that every dollar spent in a regional economy (direct impact) is either saved or re-spent on additional goods or services. If those dollars are re-spent on other goods and services in the regional economy, this spending generates additional economic activity in the region.[1]

Four different measures are commonly used to show how commercial fisheries landings affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as commercial fishing. The category includes both the direct sales of fish landed and sales made between businesses and households resulting from the original sale. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the sales of seafood or purchases of inputs to commercial fishing. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. The United States seafood industry is defined here as the commercial fishing sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers.[2]

This report provides estimates of total economic impacts for the nation and for each of the 23 coastal states. Total economic impacts for each state and the nation represent the sum of direct impacts; indirect impacts (in this case, the impact from suppliers to the seafood industry); and induced impacts (spending by employees on personal and household expenditures, where employees of both the seafood industry and its full supply chain are included). That is, the total economic impact estimates reported here measure jobs, sales, value-added, and income impacts from the seafood industry as well as the economic activity generated throughout each region's broader economy from this industry.

In 2019, the commercial fishing and seafood industry in New Jersey generated the largest employment impacts in the Mid-Atlantic Region with 52,262 full- and part-time jobs. New Jersey also generated the largest sales impacts ($10.8 billion), value-added impacts ($3.8 billion), and income impacts ($2.2 billion).

Landings Revenue

In 2019, landings revenue in the Mid-Atlantic Region totaled $498 million, a 5% decrease from 2010 (an 18% decrease in real terms after adjusting for inflation) and a 4% increase from 2018. Landings revenue was highest in Virginia ($184.3 million), followed by New Jersey ($181.7 million).

Shellfish and other landings revenue accounted for 78% of all landings revenue. In 2019, sea scallop ($134.8 million), blue crab ($98.7 million), and eastern oyster ($51.3 million) had the highest landings revenue in this region. Together, these top three species accounted for 57% of total landings revenue.

From 2010 to 2019, quahog clam (336%, 274% in real terms), eastern oyster (327%, 265% in real terms), and squid (102%, 73% in real terms) had the largest increases, while American lobster (-61%, -66% in real terms), Atlantic surf clam (-40%, -49% in real terms), and sea scallop (-27%, -37% in real terms) had the largest decreases. From 2018 to 2019, summer flounder (17%), blue crab (17%), and sea scallop (12%) had the largest increases, while American lobster (-15%), striped bass (-9%), and Atlantic surf clam

[1] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]
[2] The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates. [Available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf.]

(-5%) had the largest decreases.

Commercial Revenue: Largest Increases

From 2010:
- Quahog clam (336%, 274% in real terms)
- Eastern oyster (327%, 265% in real terms)
- Squid (102%, 73% in real terms)

From 2018:
- Summer flounder (17%)
- Blue crab (17%)
- Sea scallop (12%)

Commercial Revenue: Largest Decreases

From 2010:
- American lobster (-61%, -66% in real terms)
- Atlantic surf clam (-40%, -49% in real terms)
- Sea scallop (-27%, -37% in real terms)

From 2018:
- American lobster (-15%)
- Striped bass (-9%)
- Atlantic surf clam (-5%)

Landings

In 2019, Mid-Atlantic Region commercial fishermen landed over 644.5 million pounds of finfish and shellfish. This represents a 21% decrease from 2010 and a 2% increase from 2018. Menhaden contributed the highest landings volume in the region, accounting for 65% of total landing weight.

From 2010 to 2019, quahog clam (306%), eastern oyster (158%), and squid (20%) had the largest increases, while American lobster (-73%), blue crab (-45%), and Atlantic surf clam (-43%) had the largest decreases. From 2018 to 2019, summer flounder (56%), blue crab (12%), and sea scallop (10%) had the largest increases, while American lobster (-14%), squid (-14%), and Atlantic surf clam (-5%) had the largest decreases.

Commercial Landings: Largest Increases

From 2010:
- Quahog clam (306%)
- Eastern oyster (158%)
- Squid (20%)

From 2018:
- Summer flounder (56%)
- Blue crab (12%)
- Sea scallop (10%)

Commercial Landings: Largest Decreases

From 2010:
- American lobster (-73%)
- Blue crab (-45%)
- Atlantic surf clam (-43%)

From 2018:
- American lobster (-14%)
- Squid (-14%)
- Atlantic surf clam (-5%)

Prices

In 2019, eastern oyster ($11.29 per pound) received the highest ex-vessel price in the region. Landings of menhaden ($0.1 per pound) had the lowest ex-vessel price. From 2010 to 2019, squid (69%, 44% in real terms), striped bass (67%, 43% in real terms), and eastern oyster (65%, 41% in real terms) had the largest increases, while There were no percent decreases. had the largest decreases. From 2018 to 2019, squid (22%), blue crab (4%), and sea scallop (1%) had the largest increases, while summer flounder (-25%), striped bass (-13%), and quahog clam (-6%) had the largest decreases.

RECREATIONAL FISHERIES — MID-ATLANTIC REGION

In this report, recreational fishing refers to fishing for leisure rather than to sell fish (commercial fishing) or for subsistence. This recreational fisheries section reports on economic impacts and expenditures, angler participation, fishing trips, and catch of key species/species groups.[3]

[3] Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.

Key Mid-Atlantic Region Recreational Species[4]

- Atlantic croaker
- Black sea bass
- Bluefish
- Scup
- Spot
- Striped bass
- Summer flounder
- Tautog
- Weakfish
- Winter flounder

Economic Impacts and Expenditures

The economic contribution of recreational fishing activities in the Mid-Atlantic Region is based on spending by recreational anglers.[5] Total annual trip expenditures are estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusting by the CPI (consumer price index) to the current year. After 2018, state level durable expenditures and durable impacts will no longer be available due to changes in the availability of angler participation data at the state level.

Four different measures are commonly used to show how angler expenditures affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as recreational fishing. The category includes both the direct sales made by the angler and sales made between businesses and households resulting from that original sale by the angler. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in number of jobs. Note that these categories are not additive. NOAA Fisheries uses a regional impact modeling software, called IMPLAN, to estimate these four types of impacts.

The economic contributions for trip expenditures from recreational fishing in 2019 were estimated using IMPLAN version 3, with base year data from 2017. Models for each state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2019 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the Mid-Atlantic Region were generated in New York (4,706 jobs), followed by New Jersey (3,890 jobs) and Virginia (3,111 jobs). The largest sales impacts were observed in New Jersey ($598.8 million), followed by New York ($404.4 million) and Virginia ($342.8 million). The biggest income impacts were generated in New Jersey ($244.2 million), followed by New York ($178.1 million) and Virginia ($125.4 million). The greatest value-added impacts were in New Jersey ($387.9 million), followed by New York ($309.3 million) and Virginia ($222.7 million).

A large portion of the approximately 1.6 billion in trip expenses came from trips in the Private Boat (54.9%) and Shore (37.9%) sectors.

Participation

Due to changes in data availability after 2018, angler participation data is not being reported at the state level for 2019.

Fishing Trips

In 2019, recreational fishermen took 43 million fishing trips in the Mid-Atlantic Region. This number represented a 21% decrease from 2010 and a 10% increase from 2018. The largest proportions of trips were taken in the shore mode (60%) and private boat (38%). States with the highest number of recorded trips in the Mid-Atlantic Region were New York (13.4 million trips) and New Jersey (13.4 million trips).

Harvest and Release Trends

Of the Mid-Atlantic Region's key species and species groups, summer flounder (27.7 million fish), black sea bass (21.8 million fish), and striped bass (18.6 million

[4] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[5] Trip expenditure estimates were generated from the 2016/2017 National Marine Recreational Fishing Expenditure Survey (Lovell et al., 2020). Durable goods expenditures were generated from the 2019 National Marine Recreational Fishing Expenditure Survey. [For citations: Publications-Recreational Fisheries Economics Research.]

fish), were most frequently caught by recreational fishermen. The text box below shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2010 to 2019, scup (38%), weakfish (24%), and tautog (17%) had the largest increases, while winter flounder (-93%), Atlantic croaker (-67%), and bluefish (-41%) had the largest decreases. From 2018 to 2019, weakfish (242%), tautog (51%), and spot (44%) had the largest increases, while winter flounder (-56%) and Atlantic croaker (-4%) had the largest decreases.

Harvest and Release: Largest Increases

From 2010:
- Scup (38%)
- Weakfish (24%)
- Tautog (17%)

From 2018:
- Weakfish (242%)
- Tautog (51%)
- Spot (44%)

Harvest and Release: Largest Decreases

From 2010:
- Winter flounder (-93%)
- Atlantic croaker (-67%)
- Bluefish (-41%)

From 2018:
- Winter flounder (-56%)
- Atlantic croaker (-4%)

MARINE ECONOMY — MID-ATLANTIC REGION

For this report, the marine economy refers to the fishing and marine-related industries in a coastal state. The state marine economy consists of two industry sectors: 1) seafood sales and processing (employer establishments and non-employer firms); and 2) transportation support and marine operations (employer establishments). These sectors include several different marine-related industries.[6]

The Commercial Fishing Location Quotient (CFLQ) measures the size of the commercial fishing sector in a state's economy relative to the size of the commercial fishing sector in the national economy.[7] The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The U.S. CFLQ is 1. If a state CFLQ is less than 1, then less commercial fishing occurs in this state than the national average. If a state CFLQ is greater than 1, then more commercial fishing occurs in this state than the national average.

The Bureau of Labor Statistics suppressed the CFLQ value for Delaware for 2018. Virginia had the highest CFLQ at 1.08. New Jersey had a CFLQ value of 0.94.

In 2018, 1.1 million employer establishments operated throughout the entire Mid-Atlantic Region (including marine and non-marine related establishments). These establishments employed 18.3 million workers and had a total annual payroll of $1.1 trillion. The combined gross state product of Delaware, Maryland, New Jersey, New York, and Virginia was approximately $3.3 trillion in 2018.

Seafood Sales and Processing

Seafood Product Preparation and Packaging: In 2018, the Mid-Atlantic Region had 359 non-employer firms in the seafood product preparation and packaging sector. Annual receipts for these firms totaled $24.9 million.[8] There were 69 employer firms in the seafood product preparation and packaging sector (a 1% increase from 2010). The greatest number of establishments in this sector was in New York (207), followed by Virginia (85) and Maryland (69).

Retail Seafood Sales: In 2018, there were 389 non-employer firms in seafood retail sales in the Mid-Atlantic Region (a 15% decrease from 2010). Annual receipts for these firms totaled $45.4 million (a 5% decrease in real terms from 2010). There were 635 employer firms in the seafood retail sector (a 4% decrease from 2010).

[6] Unless otherwise stated, data are from the U.S. Census Bureau. County Business Patterns data and Nonemployer Statistics available at https://www.census.gov. The Census data are only available through 2018. GDP and Compensation of Employees data was obtained from the U.S. Bureau of Economic Analysis, 'Table SAGDP1 Gross Domestic Product' and 'Table SA6N Compensation of Employees by NAICS Industry,' respectively. Percentage changes in inflation-adjusted (real) dollar terms are calculated using the annual Gross Domestic Product implicit price deflator, which was obtained from the Federal Reserve Bank of St. Louis (https://fred.stlouisfed.org/series/USAGDPDEFAISMEI).
[7] U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'
[8] The Census Bureau suppressed number of firms and receipt data for this sector in one or more states in the this region in either 2018 or 2010, and thus cannot be compared.

The greatest number of establishments in this sector was in New York (540), followed by New Jersey (186) and Maryland (150).

Wholesale Seafood Sales: There were 444 employer firms in the seafood wholesale sector in the Mid-Atlantic Region in 2018 (an 11% decrease from 2010). The greatest number of establishments in this sector was in New York (252), followed by New Jersey (77) and Virginia (57).

Transportation Support and Marine Operations

Data for the transportation support and marine operations sectors of the Mid-Atlantic Region's economy were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the regional economy. For example, in 2018, the ship and boat building sector in the Mid-Atlantic Region accounted for $2.1 billion in payroll.

Tables | Mid-Atlantic Region

2019 Economic Impacts of the Mid-Atlantic Seafood Industry (jobs, thousands of dollars)

		With Imports				Without Imports			
	Landings Revenue	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Delaware	11,831	774	156,991	29,749	51,198	415	55,667	11,883	18,915
Maryland	77,944	18,248	2,778,243	645,919	1,027,469	5,782	359,481	131,425	179,457
New Jersey	181,741	52,262	10,808,641	2,238,502	3,761,959	7,028	676,709	223,053	321,329
New York	42,176	42,006	6,492,898	1,346,110	2,257,380	2,708	150,209	51,853	72,716
Virginia	184,269	23,523	3,230,751	803,235	1,250,426	12,726	840,664	318,232	432,103

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	523,231	554,607	509,999	440,098	478,267	528,072	550,673	510,777	477,763	497,961
Finfish	106,972	116,351	125,577	115,568	114,664	110,358	103,625	110,557	104,197	109,956
Shellfish and Other	416,258	438,256	384,422	324,530	363,604	417,714	447,048	400,220	373,566	388,005
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	6,281	4,762	5,271	4,062	3,853	3,308	3,125	3,420	2,909	2,476
Atlantic surf clam	19,940	18,737	16,813	13,688	11,455	13,004	12,477	1,465	12,546	11,910
Blue crab	127,735	101,638	101,947	78,901	89,022	96,449	108,083	90,693	84,659	98,665
Eastern oyster	12,038	13,043	20,231	43,700	54,577	60,951	46,551	61,899	52,503	51,349
Menhaden	40,345	39,675	40,043	33,778	33,332	40,325	34,081	40,405	41,477	41,453
Quahog clam	7,886	27,608	29,502	35,902	38,153	28,133	45,239	38,390	35,773	34,422
Sea scallop	184,289	227,449	168,921	100,411	125,679	150,716	180,782	137,369	120,817	134,770
Squid	11,806	20,562	17,661	12,039	8,294	8,378	15,325	15,412	22,625	23,830
Striped bass	11,306	12,680	13,877	17,802	16,057	12,189	14,077	15,447	12,733	11,594
Summer flounder	12,850	15,614	17,190	17,150	13,195	14,398	13,913	12,061	11,948	14,019

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	812,738	798,970	762,886	586,783	595,694	644,299	589,376	617,657	629,462	644,498
Finfish	568,242	568,383	562,347	431,484	448,349	493,628	418,489	440,535	456,118	469,739
Shellfish and Other	244,495	230,587	200,539	155,299	147,345	150,670	170,886	177,122	173,344	174,760
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	1,553	1,105	1,546	1,228	844	654	601	623	485	416
Atlantic surf clam	30,946	30,272	27,008	22,788	19,447	21,392	20,169	2,167	18,580	17,573
Blue crab	119,283	104,425	88,974	51,667	54,414	59,730	74,652	63,253	58,998	65,929
Eastern oyster	1,761	2,031	2,738	4,922	5,456	6,626	5,036	5,110	4,689	4,549
Menhaden	499,747	496,876	492,532	366,584	379,997	435,313	363,902	388,167	401,358	415,720
Quahog clam	1,246	3,551	3,730	4,586	5,016	3,256	6,114	5,203	4,935	5,053
Sea scallop	23,999	23,386	17,627	8,855	10,256	12,202	15,619	15,235	13,376	14,713
Squid	25,853	33,150	25,435	14,516	8,142	7,102	15,078	30,116	35,792	30,929
Striped bass	5,582	5,464	5,337	4,676	4,878	3,556	3,520	3,601	3,275	3,422
Summer flounder	6,385	8,673	7,794	8,025	4,901	4,975	3,725	2,846	2,907	4,539

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	4.04	4.31	3.41	3.31	4.56	5.06	5.20	5.49	6.00	5.95
Atlantic surf clam	0.64	0.62	0.62	0.60	0.59	0.61	0.62	0.68	0.68	0.68
Blue crab	1.07	0.97	1.15	1.53	1.64	1.61	1.45	1.43	1.43	1.50
Eastern oyster	6.84	6.42	7.39	8.88	10.00	9.20	9.24	12.11	11.20	11.29
Menhaden	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10
Quahog clam	6.33	7.77	7.91	7.83	7.61	8.64	7.40	7.38	7.25	6.81
Sea scallop	7.68	9.73	9.58	11.34	12.25	12.35	11.57	9.02	9.03	9.16
Squid	0.46	0.62	0.69	0.83	1.02	1.18	1.02	0.51	0.63	0.77
Striped bass	2.03	2.32	2.60	3.81	3.29	3.43	4.00	4.29	3.89	3.39
Summer flounder	2.01	1.80	2.21	2.14	2.69	2.89	3.74	4.24	4.11	3.09

2019 Economic Impacts of the Mid-Atlantic Recreational Fishing Expenditures (thousands of dollars, trips)

	Trips	#Jobs	Sales	Income	Value Added
Delaware	2,108	912	106,776	35,726	69,787
Maryland	6,836	2,975	286,237	106,480	183,219
New Jersey	13,380	3,890	598,835	244,181	387,921
New York	13,412	4,706	404,394	178,122	309,283
Virginia	7,238	3,111	342,782	125,411	222,703

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)[1]

Fishing Mode	Trip Expenditures
For-Hire	114,187
Private Boat	863,890
Shore	596,472
Total	1,574,549

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	1,574,549

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	2,598	2,244	2,093	2,080	2,111	1,860	2,238	1,751	1,811	NA
Non-Coastal	178	145	175	139	130	124	169	147	106	NA
Total Anglers	2,776	2,389	2,268	2,219	2,241	1,984	2,407	1,898	1,917	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	871	1,031	983	1,361	1,209	1,299	688	743	770	839
Private Boat	24,273	22,649	22,528	21,648	20,821	18,975	19,112	18,863	14,692	16,312
Shore	29,410	29,535	29,617	28,119	29,679	27,409	28,558	26,399	23,569	25,823
Total Trips	54,554	53,214	53,129	51,128	51,710	47,683	48,359	46,005	39,030	42,974

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	16,307	10,726	12,385	18,080	13,390	10,437	7,969	8,134	5,894	3,181
	R	17,969	15,564	26,605	30,906	15,221	8,602	8,250	11,677	5,792	8,021
Black sea bass	H	3,221	1,092	2,171	2,054	2,062	3,146	3,935	4,292	2,222	2,812
	R	18,521	8,802	24,303	15,652	11,901	14,406	23,076	28,100	13,787	18,996
Bluefish	H	7,770	8,379	7,886	5,807	10,557	5,256	6,108	6,720	3,419	4,799
	R	13,328	13,772	15,150	9,207	15,481	10,901	11,933	12,805	6,596	7,691
Scup	H	5,189	2,336	1,912	3,376	2,832	7,101	4,450	8,653	5,831	7,228
	R	5,150	3,760	5,647	7,025	4,907	8,331	13,098	17,450	7,781	7,037
Spot	H	11,511	12,741	14,839	16,002	18,694	3,174	6,456	19,198	8,787	10,628
	R	7,705	8,266	11,896	18,447	6,604	2,746	3,591	5,644	4,109	7,969
Striped bass	H	4,122	3,529	2,699	3,785	3,103	2,368	3,047	2,331	1,701	1,731
	R	11,705	9,350	13,897	15,757	15,196	16,664	21,183	14,468	13,802	16,891
Summer flounder	H	2,698	3,477	4,969	5,633	4,337	3,249	3,680	2,741	1,966	1,990
	R	53,519	48,568	36,828	35,595	36,106	28,159	24,784	23,194	19,327	25,749
Tautog	H	2,053	972	577	1,055	1,667	987	1,349	1,048	584	999
	R	6,669	5,018	5,626	7,082	5,460	7,617	10,302	9,736	6,149	9,196
Weakfish	H	37	28	386	135	59	100	58	120	33	127
	R	1,239	1,215	1,972	626	652	1,219	1,978	819	431	1,455
Winter flounder	H	167	234	177	21	124	18	93	9	14	< 1
	R	296	259	125	104	47	105	31	23	57	30

[1] NA = not available.
[2] Delaware anglers estimates are not available for the non-coastal mode.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.

Tables | Delaware

2019 Economic Impacts of the Delaware Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	774	156,991	29,749	51,198	415	55,667	11,883	18,915
Commercial Harvesters	211	21,677	5,158	6,984	211	21,677	5,158	6,984
Seafood Processors & Dealers	77	16,171	2,845	5,470	40	8,392	1,477	2,839
Importers	253	82,642	13,245	25,193	0	0	0	0
Seafood Wholesalers & Distributors	68	10,853	4,127	4,920	27	4,238	1,612	1,921
Retail	166	25,649	4,374	8,631	138	21,360	3,637	7,171

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	7,845	7,092	8,464	7,307	7,220	6,843	11,494	9,807	10,557	11,831
Finfish	834	906	679	940	283	506	506	308	664	1,033
Shellfish and Other	7,011	6,186	7,785	6,368	6,937	6,337	10,987	9,499	9,892	10,798
Key Species	-	-	-	-	-	-	-	-	-	
American eel	206	274	159	244	156	127	130	NA	97	43
Black drum	17	NA	4	11	NA	17	20	NA	11	4
Black sea bass	190	196	NA	NA	NA	304	301	278	513	494
Blue crab	5,957	4,819	6,664	4,576	4,379	4,498	9,145	7,318	7,574	8,479
Eastern oyster	404	347	345	407	420	358	498	701	644	994
Knobbed whelk	123	106	18	299	438	381	294	237	640	518
Northern quahog clam	110	143	123	177	133	97	69	101	73	73
Quahog clam	110	143	123	177	133	97	69	101	73	73
Summer flounder	5	2	NA	NA	5	4	7	5	2	4
Weakfish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	5,214	4,921	5,640	4,048	3,727	3,529	5,684	5,080	5,283	5,994
Finfish	476	448	424	441	337	390	329	215	455	428
Shellfish and Other	4,738	4,473	5,216	3,607	3,390	3,139	5,356	4,864	4,828	5,565
Key Species	-	-	-	-	-	-	-	-	-	-
American eel	69	91	54	83	62	45	45	NA	31	14
Black drum	50	NA	11	25	NA	39	49	1	32	6
Black sea bass	80	86	NA	NA	NA	112	97	117	172	173
Blue crab	4,110	3,502	4,571	2,488	2,000	2,124	4,555	3,788	3,842	4,659
Eastern oyster	71	62	60	71	73	61	72	79	107	120
Knobbed whelk	89	74	12	125	189	159	123	99	267	149
Northern quahog clam	30	39	32	43	41	30	18	28	20	21
Quahog clam	30	39	32	43	41	30	18	28	20	21
Summer flounder	2	1	NA	NA	2	1	2	1	1	1
Weakfish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American eel	3.00	3.03	2.93	2.94	2.50	2.83	2.93	NA	3.08	3.13
Black drum	0.35	NA	0.35	0.43	NA	0.44	0.41	0.61	0.35	0.67
Black sea bass	2.38	2.29	NA	NA	NA	2.73	3.11	2.36	2.98	2.86
Blue crab	1.45	1.38	1.46	1.84	2.19	2.12	2.01	1.93	1.97	1.82
Eastern oyster	5.67	5.56	5.76	5.71	5.71	5.85	6.90	8.83	6.03	8.27
Knobbed whelk	1.39	1.43	1.43	2.40	2.31	2.40	2.40	2.40	2.40	3.47
Northern quahog clam	3.69	3.72	3.84	4.07	3.25	3.26	3.75	3.61	3.61	3.52
Quahog clam	3.69	3.72	3.84	4.07	3.25	3.26	3.75	3.61	3.61	3.52
Summer flounder	2.47	2.42	NA	NA	2.90	3.09	3.24	3.27	2.95	3.11
Weakfish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of Delaware Recreational Fishing Expenditures (thousands of dollars)

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	52	4,555	1,706	2,583
	Private Boat	244	33,050	10,155	20,474
	Shore	617	69,171	23,865	46,730
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		912	106,776	35,726	69,787

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)[1]

Fishing Mode	Trip Expenditures
For-Hire	2,978
Private Boat	31,218
Shore	61,038
Total	95,233

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	95,233

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	128	129	111	82	93	67	104	80	64	NA
Non-Coastal	0	0	0	0	0	0	0	0	0	NA
Out-of-State	165	190	151	97	146	84	168	94	69	NA
Total Anglers	293	318	262	179	239	151	272	174	133	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	19	18	21	37	39	37	14	14	7	21
Private Boat	1,065	1,028	973	950	858	744	637	680	701	596
Shore	2,012	1,832	1,523	1,448	1,593	1,289	1,480	1,297	1,439	1,491
Total Trips	3,097	2,878	2,516	2,435	2,491	2,071	2,130	1,991	2,147	2,108

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	208	213	202	530	806	335	25	66	12	53
	R	1,057	215	1,036	1,812	1,397	309	391	230	85	102
Atlantic mackerel	H	NA	NA	0	< 1	NA	< 1	0	< 1	NA	NA
	R	NA	NA	< 1	< 1	NA	0	< 1	0	NA	NA
Black sea bass	H	70	121	108	48	48	57	95	112	88	43
	R	708	580	605	512	528	526	780	485	371	378
Bluefish	H	98	124	95	57	333	235	110	261	76	151
	R	210	396	400	161	802	464	359	612	536	430
Striped bass	H	61	44	51	71	26	42	6	28	4	11
	R	256	338	358	273	530	309	218	254	352	368
Summer flounder	H	144	141	101	120	189	120	173	98	85	91
	R	1,669	1,330	556	518	651	431	557	591	513	441
Tautog	H	182	118	95	97	132	29	46	32	9	24
	R	868	312	226	322	200	113	277	388	250	453
Weakfish	H	< 1	< 1	11	16	7	2	1	1	2	10
	R	42	14	213	52	55	34	63	38	27	105
White perch	H	638	344	183	331	305	118	10	99	117	318
	R	1,232	876	534	1,139	186	355	46	179	416	189
Yellowfin tuna[5]	H	< 1	1	< 1	2	1	5	< 1	NA	1	< 1
	R	0	< 1	0	< 1	< 1	< 1	0	NA	< 1	0

[1] NA = not available.
[2] Non-coastal data are not available because all of the state's residents are considered coastal county residents.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[5] Yellowfin tuna include yellowfin tuna and swordfish.

2018 Delaware State Economy (% of national total)[1]

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[2]
68,623 (0.3%)	25,771 (0.3%)	405,809 (0.3%)	23.0 (0.3%)	33.2 (0.3%)	72.5	ds

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	ds	ds	ds	ds	ds	ds	3	5	9
	Receipts	ds	ds	ds	ds	ds	ds	558	458	786
Seafood sales, retail	Firms	9	9	11	8	13	11	11	12	11
	Receipts	1,107	1,226	1,333	520	452	479	608	2,868	914

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	1	1	1	1	2	1	2	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Seafood sales, wholesale	Establishments	7	7	7	9	8	6	6	5	6
	Employees	ds	ds	ds	ds	ds	54	56	67	112
	Payroll	ds	ds	ds	3,020	2,381	2,404	2,707	3,072	5,222
Seafood sales, retail	Establishments	15	18	16	17	17	14	12	12	10
	Employees	47	49	ds	60	52	36	45	40	39
	Payroll	1,414	1,493	1,545	1,396	1,261	1,224	1,037	1,370	1,352

Transport, Support and Marine Operations — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	2	3	4	4	6	6	5	4	4
	Employees	ds	ds	50	61	55	57	53	0	45
	Payroll	ds	ds	2,313	2,516	2,174	2,168	2,410	0	1,683
Deep Sea Freight Transportation	Establishments	5	2	1	1	2	4	2	NA	NA
	Employees	120	ds	ds	ds	ds	98	ds	NA	NA
	Payroll	10,768	ds	ds	ds	ds	8,771	ds	NA	NA
Deep Sea Passenger Transportation	Establishments	1	NA	NA	2	2	1	1	NA	NA
	Employees	ds	NA	NA	ds	ds	ds	ds	NA	NA
	Payroll	ds	NA	NA	ds	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	1	NA	NA	NA	NA	1	2	5	3
	Employees	ds	NA	NA	NA	NA	ds	ds	38	33
	Payroll	ds	NA	NA	NA	NA	ds	ds	4,534	2,528
Port and Harbor Operations	Establishments	3	3	4	3	2	2	2	NA	3
	Employees	29	44	ds	ds	ds	ds	ds	NA	11
	Payroll	1,182	1,512	ds	ds	ds	ds	ds	NA	5,092
Marine Cargo Handling	Establishments	3	3	2	3	3	3	3	4	3
	Employees	434	511	ds	565	541	577	540	513	574
	Payroll	16,835	19,203	ds	20,698	22,789	23,370	22,994	25,453	25,421
Navigational Services to Shipping	Establishments	8	8	8	8	10	10	11	12	12
	Employees	76	78	ds	82	92	81	92	101	92
	Payroll	5,176	5,096	3,111	5,330	5,350	5,938	6,709	6,796	7,494
Marinas	Establishments	19	17	18	19	18	18	18	15	17
	Employees	65	ds	67	64	95	86	86	67	71
	Payroll	2,342	3,106	1,963	2,196	2,293	2,527	2,527	2,128	2,478

[1] ds = Data are suppressed.
[2] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[3] NA = Not applicable.

Tables | Maryland

2019 Economic Impacts of the Maryland Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	18,248	2,778,243	645,919	1,027,469	5,782	359,481	131,425	179,457
Commercial Harvesters	2,426	137,459	39,318	61,273	2,426	137,459	39,318	61,273
Seafood Processors & Dealers	2,304	241,576	94,140	120,212	549	57,521	22,416	28,624
Importers	5,745	1,879,713	301,260	573,019	0	0	0	0
Seafood Wholesalers & Distributors	1,107	172,697	58,704	77,948	173	27,033	9,189	12,201
Retail	6,666	346,798	152,497	195,018	2,635	137,467	60,503	77,359

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	103,821	82,565	84,305	81,136	92,117	88,313	90,749	81,512	71,985	77,944
Finfish	9,765	11,278	14,659	12,710	18,530	12,706	15,621	13,469	10,972	12,817
Shellfish and Other	94,056	71,287	69,646	68,427	73,587	75,607	75,128	68,043	61,014	65,127
Key Species	-	-	-	-	-	-	-	-	-	-
Atlantic croaker	507	482	689	455	492	342	179	138	77	5
Black sea bass	590	507	421	710	834	792	896	1,236	1,254	1,192
Blue crab	79,055	60,326	60,467	50,167	52,849	52,084	54,534	48,535	45,308	48,058
Eastern oyster	4,385	3,691	5,710	13,827	15,687	15,093	12,265	10,473	6,741	9,949
Menhaden	729	685	1,669	902	1,380	1,222	1,036	648	733	627
Sea scallop	1,188	552	202	8	1,328	3,077	1,804	945	1,209	2,403
Shad	164	118	151	146	486	361	233	3	566	248
Shark	246	422	385	349	299	228	327	364	137	73
Striped bass	5,425	5,623	6,172	8,043	8,092	6,194	7,131	7,061	6,022	6,015
Summer flounder	541	463	380	541	598	597	668	564	608	402

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	101,735	78,163	77,264	47,200	50,210	53,988	59,150	51,213	48,967	47,211
Finfish	22,905	18,195	28,784	15,353	20,917	16,920	16,308	11,082	13,176	12,257
Shellfish and Other	78,829	59,968	48,480	31,847	29,293	37,068	42,841	40,131	35,790	34,954
Key Species	-	-	-	-	-	-	-	-	-	-
Atlantic croaker	628	804	1,091	864	504	340	162	94	53	3
Black sea bass	203	182	144	234	252	236	272	410	374	370
Blue crab	66,262	51,163	43,741	24,797	24,690	28,759	36,734	30,655	27,822	28,382
Eastern oyster	432	356	618	1,404	1,196	1,191	887	671	465	657
Menhaden	15,467	8,016	16,383	7,674	8,363	8,786	6,473	3,568	4,388	4,165
Sea scallop	153	58	20	1	110	248	151	98	144	253
Shad	425	974	1,514	1,449	1,639	2,145	1,148	3	3,289	1,655
Shark	659	1,434	1,334	1,426	1,304	1,259	1,669	2,039	787	105
Striped bass	2,510	2,343	2,285	1,981	2,353	1,708	1,718	1,829	1,760	1,747
Summer flounder	261	259	165	194	192	188	159	137	143	155

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	0.81	0.60	0.63	0.53	0.98	1.01	1.10	1.47	1.46	1.70
Black sea bass	2.90	2.78	2.92	3.03	3.31	3.35	3.30	3.02	3.35	3.23
Blue crab	1.19	1.18	1.38	2.02	2.14	1.81	1.48	1.58	1.63	1.69
Eastern oyster	10.15	10.37	9.24	9.85	13.11	12.67	13.83	15.60	14.50	15.13
Menhaden	0.05	0.09	0.10	0.12	0.17	0.14	0.16	0.18	0.17	0.15
Sea scallop	7.77	9.54	10.23	12.77	12.11	12.40	11.94	9.68	8.38	9.51
Shad	0.38	0.12	0.10	0.10	0.30	0.17	0.20	1.18	0.17	0.15
Shark	0.37	0.29	0.29	0.24	0.23	0.18	0.20	0.18	0.17	0.69
Striped bass	2.16	2.40	2.70	4.06	3.44	3.63	4.15	3.86	3.42	3.44
Summer flounder	2.07	1.78	2.30	2.80	3.11	3.18	4.20	4.10	4.24	2.60

2019 Economic Impacts of Maryland Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	598	61,329	23,740	37,717
	Private Boat	1,147	117,168	43,210	74,052
	Shore	1,231	107,741	39,530	71,450
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		2,975	286,237	106,480	183,219

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	38,401
Private Boat	121,568
Shore	94,472
Total	254,441

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	254,441

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	552	415	374	404	413	364	453	353	406	NA
Non-Coastal	54	49	40	36	41	31	23	41	30	NA
Out-of-State	462	372	258	329	338	352	352	265	274	NA
Total Anglers	1,068	836	672	769	792	748	829	659	709	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	136	154	156	153	189	177	131	211	145	223
Private Boat	4,897	4,708	5,150	4,861	4,167	4,366	4,160	3,415	2,692	2,756
Shore	4,829	4,859	4,234	4,695	5,038	4,586	5,073	4,717	3,924	3,857
Total Trips	9,862	9,721	9,539	9,710	9,394	9,129	9,364	8,343	6,762	6,836

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	2,995	1,531	2,566	2,309	2,197	1,739	659	424	305	70
	R	3,061	937	7,091	7,557	2,807	1,236	727	2,829	203	1,244
Black sea bass	H	42	79	161	27	63	89	207	149	154	129
	R	2,027	811	1,323	768	956	763	1,054	865	1,282	1,636
Bluefish	H	739	731	349	119	396	287	212	176	275	112
	R	572	1,037	521	723	491	662	556	197	418	227
Spot	H	2,840	2,125	2,121	2,456	4,396	1,352	1,145	3,251	1,210	2,634
	R	2,773	783	3,292	7,621	2,207	642	713	2,280	943	3,312
Striped bass	H	1,152	1,113	720	1,185	1,640	1,112	1,546	1,092	993	765
	R	5,390	3,484	9,001	6,676	8,304	8,524	13,781	7,788	7,458	6,998
Summer flounder	H	76	47	99	119	118	98	40	57	48	79
	R	4,082	1,632	852	915	1,358	719	1,712	862	793	938
Tautog	H	290	64	20	23	1	12	4	19	18	< 1
	R	1,318	340	651	325	5	267	530	761	215	722
Weakfish drum	H	13	< 1	39	4	2	13	2	9	0	7
	R	417	51	72	20	27	341	161	41	5	19
White perch	H	7,239	4,341	5,820	6,827	2,746	3,817	6,028	4,380	2,808	5,223
	R	8,715	7,837	16,250	18,587	7,879	7,200	10,339	7,388	4,141	8,130
Yellowfin tuna	H	1	< 1	NA	4	17	12	23	112	< 1	34
	R	< 1	0	NA	10	4	0	24	10	< 1	20

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Maryland State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
510,744 (1.9%)	139,497 (1.8%)	2,366,053 (1.8%)	132 (1.9%)	223 (2%)	411	0.44

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	43	55	67	49	60	53	64	70	50
	Receipts	2,138	2,374	3,030	3,158	3,230	3,133	3,440	3,676	2,971
Seafood sales, retail	Firms	85	86	96	95	87	87	91	79	77
	Receipts	6,177	7,396	6,454	6,147	8,437	8,104	9,426	8,653	10,149

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	18	17	16	16	17	17	19	15	19
	Employees	273	264	266	309	284	288	260	280	261
	Payroll	12,652	12,773	13,587	12,455	13,131	13,631	17,775	18,251	18,156
Seafood sales, wholesale	Establishments	63	57	60	58	58	53	60	54	52
	Employees	795	775	724	636	630	605	654	752	1,072
	Payroll	39,067	38,971	34,194	30,119	31,503	33,739	36,196	41,754	63,195
Seafood sales, retail	Establishments	87	88	87	87	83	79	85	77	73
	Employees	526	562	575	574	562	539	561	522	541
	Payroll	11,810	12,883	13,027	13,623	13,907	15,033	15,910	15,031	15,125

Transport, Support and Marine Operations — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	35	35	34	31	35	36	36	31	30
	Employees	ds	633	378	371	449	456	482	474	441
	Payroll	ds	36,675	14,619	16,822	18,130	20,599	21,425	20,616	21,008
Deep Sea Freight Transportation	Establishments	15	16	14	10	11	11	9	10	10
	Employees	390	329	245	139	135	118	140	119	112
	Payroll	24,185	25,071	17,938	10,041	11,600	11,097	10,396	10,504	12,296
Deep Sea Passenger Transportation	Establishments	1	NA	NA	1	NA	NA	NA	NA	NA
	Employees	ds	NA	NA	ds	NA	NA	NA	NA	NA
	Payroll	ds	NA	NA	ds	NA	NA	NA	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	8	6	4	4	8	6	8	5	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	0	NA
	Payroll	ds	ds	ds	538	ds	ds	ds	0	NA
Port and Harbor Operations	Establishments	5	5	22	16	17	15	14	19	18
	Employees	ds	ds	1,875	962	1,220	1,349	1,080	1,211	1,401
	Payroll	ds	ds	93,001	44,436	57,543	55,375	52,510	62,934	69,177
Marine Cargo Handling	Establishments	17	17	6	12	12	12	13	11	11
	Employees	2,742	1,924	ds	1,519	1,132	1,140	1,424	1,292	1,597
	Payroll	95,182	86,680	ds	60,500	60,962	81,751	75,022	78,142	96,776
Navigational Services to Shipping	Establishments	10	11	10	11	10	11	11	16	19
	Employees	84	84	ds	245	131	125	114	194	942
	Payroll	4,015	4,259	ds	17,066	6,345	6,411	6,055	11,241	75,779
Marinas	Establishments	175	172	159	170	166	172	171	161	165
	Employees	1,275	1,294	1,276	1,328	1,366	1,380	1,396	1,234	1,300
	Payroll	43,508	43,330	43,531	45,540	47,443	50,633	51,934	47,963	52,729

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = not applicable.

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2019 Economic Impacts of the New Jersey Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	52,262	10,808,641	2,238,502	3,761,959	7,028	676,709	223,053	321,329
Commercial Harvesters	2,611	362,195	95,155	154,337	2,611	362,195	95,155	154,337
Seafood Processors & Dealers	1,762	193,834	73,409	95,813	670	73,661	27,897	36,411
Importers	25,615	8,380,138	1,343,077	2,554,633	0	0	0	0
Seafood Wholesalers & Distributors	4,214	797,105	256,189	348,367	193	36,440	11,712	15,926
Retail	18,061	1,075,369	470,672	608,808	3,554	204,412	88,289	114,655

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	178,542	220,346	187,675	131,345	149,324	166,222	191,154	184,667	169,702	181,741
Finfish	22,342	25,416	27,412	24,472	23,451	28,326	25,366	32,851	29,889	30,761
Shellfish and Other	156,200	194,930	160,263	106,874	125,873	137,896	165,789	151,816	139,813	150,981
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	2,911	3,088	3,938	2,797	2,380	2,248	1,883	2,245	2,052	1,690
Atlantic herring	416	414	145	401	615	308	292	482	354	NA
Atlantic mackerel	812	53	577	18	12	535	79	596	1,298	990
Black sea bass	996	970	1,054	1,370	1,603	1,763	1,945	2,823	2,809	2,679
Blue crab	12,028	9,429	10,011	NA	4,157	8,699	5,668	8,946	8,607	8,032
Goosefish	2,752	3,654	3,301	2,453	2,428	2,364	2,470	1,558	1,349	1,415
Sea scallop	109,120	142,510	110,560	65,190	87,745	97,855	123,362	99,253	83,181	96,386
Squid	7,242	12,806	8,949	5,804	2,643	2,798	7,209	10,437	14,464	16,382
Summer flounder	4,553	5,461	5,433	4,899	4,862	5,059	5,442	4,296	4,549	5,094
Tilefish	1,026	1,063	1,168	1,154	1,760	1,604	1,261	1,217	1,190	1,315

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	161,609	187,153	180,436	119,518	124,925	148,353	132,342	197,584	189,551	175,341
Finfish	71,575	91,423	100,764	54,356	61,113	89,910	68,067	114,825	104,947	93,806
Shellfish and Other	90,034	95,730	79,673	65,162	63,813	58,443	64,275	82,759	84,604	81,535
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	693	698	919	660	526	445	350	409	345	291
Atlantic herring	4,107	2,380	1,106	2,344	4,087	3,428	2,798	3,353	3,374	NA
Atlantic mackerel	4,633	106	1,997	46	17	2,188	306	2,778	7,108	5,514
Black sea bass	305	294	311	421	494	468	526	899	700	720
Blue crab	9,458	9,611	7,396	NA	3,233	7,247	6,816	6,410	5,435	5,314
Goosefish	2,024	2,275	2,212	2,231	2,172	1,903	1,885	1,388	1,719	1,895
Sea scallop	14,171	14,545	11,379	5,640	7,133	7,847	10,491	10,961	9,206	10,464
Squid	21,893	25,956	17,521	9,189	2,773	2,647	8,512	26,749	30,730	26,464
Summer flounder	2,166	2,831	2,269	2,004	1,826	1,682	1,297	962	1,046	1,599
Tilefish	396	360	406	377	582	434	335	438	411	405

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	4.20	4.42	4.28	4.23	4.52	5.05	5.38	5.49	5.96	5.81
Atlantic herring	0.10	0.17	0.13	0.17	0.15	0.09	0.10	0.14	0.10	NA
Atlantic mackerel	0.18	0.50	0.29	0.40	0.73	0.24	0.26	0.21	0.18	0.18
Black sea bass	3.26	3.30	3.39	3.25	3.25	3.76	3.70	3.14	4.01	3.72
Blue crab	1.27	0.98	1.35	NA	1.29	1.20	0.83	1.40	1.58	1.51
Goosefish	1.36	1.61	1.49	1.10	1.12	1.24	1.31	1.12	0.78	0.75
Sea scallop	7.70	9.80	9.72	11.56	12.30	12.47	11.76	9.05	9.04	9.21
Squid	0.33	0.49	0.51	0.63	0.95	1.06	0.85	0.39	0.47	0.62
Summer flounder	2.10	1.93	2.39	2.44	2.66	3.01	4.20	4.47	4.35	3.19
Tilefish	2.59	2.95	2.88	3.06	3.02	3.69	3.76	2.78	2.89	3.25

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of New Jersey Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	469	50,683	18,483	31,849
	Private Boat	1,858	321,869	127,356	204,360
	Shore	1,563	226,283	98,343	151,712
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		3,890	598,835	244,181	387,921

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	31,517
Private Boat	277,969
Shore	180,349
Total	489,835

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	489,835

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	776	687	662	581	607	515	507	447	411	NA
Non-Coastal	36	23	27	20	17	24	32	16	17	NA
Out-of-State	449	357	431	330	566	448	378	253	322	NA
Total Anglers	1,261	1,067	1,121	931	1,189	987	916	716	750	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	331	370	388	532	494	450	234	215	289	292
Private Boat	8,126	7,129	7,107	6,476	6,260	5,013	4,741	4,848	4,432	4,357
Shore	10,228	10,033	10,659	8,759	10,259	9,021	8,877	7,225	7,772	8,732
Total Trips	18,685	17,532	18,153	15,767	17,012	14,485	13,852	12,288	12,493	13,380

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[1,2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Black sea bass	H	2,006	285	1,364	934	639	440	517	1,500	1,040	831
	R	11,907	4,454	11,111	8,612	4,789	4,984	6,239	7,939	5,613	5,353
Bluefin tuna[4]	H	16	13	< 1	30	11	2	5	22	23	33
	R	20	31	0	0	2	2	9	22	30	55
Bluefish	H	3,036	3,934	3,133	2,322	4,557	1,765	3,282	3,047	1,421	742
	R	6,367	6,867	6,407	3,540	7,411	4,001	7,084	7,677	2,512	2,569
Red hake	H	196	220	71	104	218	51	41	58	165	278
	R	71	29	259	157	33	17	13	57	93	24
Striped bass	H	1,091	1,039	742	1,324	502	600	660	626	465	413
	R	2,436	2,447	1,822	4,349	2,840	2,440	1,808	2,317	2,756	2,709
Summer flounder	H	1,318	1,969	3,086	3,450	2,418	1,180	1,456	1,211	1,045	1,108
	R	28,058	24,558	22,080	19,160	22,209	10,821	12,299	7,785	10,371	13,068
Tautog	H	717	314	92	443	533	339	190	569	385	311
	R	2,491	2,518	1,754	1,811	2,040	1,614	1,984	3,048	2,572	1,787
Weakfish	H	4	8	277	90	16	73	12	79	16	35
	R	240	288	1,384	331	194	598	278	147	41	202
Winter flounder	H	37	122	< 1	21	52	3	56	8	14	< 1
	R	60	92	2	89	19	102	21	15	13	1
Yellowfin tuna[5]	H	84	18	183	148	22	13	29	33	147	19
	R	< 1	< 1	8	6	0	23	20	4	78	6

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[4] Bluefin tuna include bluefin tuna and blue shark.
[5] Yellowfin tuna include yellowfin tuna and swordfish.

2018 New Jersey State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
745,483 (2.8%)	233,806 (3%)	3,739,076 (2.9%)	231 (3.2%)	337 (3.1%)	614	0.94

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2009	2010	2011	2012	2013	2014	2015	2016	2017
Seafood product prep. & packaging	Firms	47	29	35	48	45	39	44	44	43
	Receipts	3,613	3,447	3,565	4,981	5,736	3,603	3,811	3,701	4,135
Seafood sales, retail	Firms	66	68	77	74	74	70	68	68	75
	Receipts	8,265	8,049	8,972	8,257	7,135	7,711	7,042	9,733	11,051

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2009	2010	2011	2012	2013	2014	2015	2016	2017
Seafood product prep. & packaging	Establishments	11	12	11	13	13	15	13	18	15
	Employees	482	518	404	671	647	715	452	716	458
	Payroll	17,427	17,940	13,747	22,764	21,933	25,929	17,030	27,436	18,988
Seafood sales, wholesale	Establishments	90	91	82	80	78	78	73	73	77
	Employees	848	935	1,058	765	795	784	753	775	768
	Payroll	38,065	40,103	44,033	37,405	36,773	39,900	41,239	42,765	41,658
Seafood sales, retail	Establishments	108	109	114	114	108	115	116	115	111
	Employees	332	332	382	419	434	446	471	428	412
	Payroll	9,094	9,264	11,561	11,657	12,520	12,591	13,351	12,696	12,556

Transport, Support and Marine Operations — Employer Establishments (thousands of dollars)[2,3]

		2009	2010	2011	2012	2013	2014	2015	2016	2017
Ship and Boat Building	Establishments	24	23	21	24	24	23	24	23	20
	Employees	1,056	864	901	917	1,080	1,329	1,417	1,594	1,605
	Payroll	37,920	39,810	36,334	41,886	50,459	59,130	64,354	78,326	78,044
Deep Sea Freight Transportation	Establishments	26	26	25	20	21	24	22	18	17
	Employees	ds	ds	390	225	212	193	187	137	140
	Payroll	78,898	81,936	27,481	12,263	11,271	11,522	11,988	9,580	9,468
Deep Sea Passenger Transportation	Establishments	2	2	2	NA	2	1	1	NA	NA
	Employees	ds	ds	ds	NA	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	NA	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	18	20	16	16	13	13	15	15	16
	Employees	600	508	402	367	365	414	404	419	441
	Payroll	44,246	40,587	32,007	32,431	33,308	37,888	38,330	45,683	47,778
Port and Harbor Operations	Establishments	11	7	25	18	18	17	18	14	18
	Employees	124	163	ds	ds	ds	106	105	79	865
	Payroll	10,463	16,933	139,276	5,995	6,334	6,305	6,202	5,457	140,095
Marine Cargo Handling	Establishments	21	22	15	20	21	20	20	20	17
	Employees	3,292	3,744	2,582	6,912	6,082	5,005	4,692	4,454	4,218
	Payroll	260,894	273,636	203,148	538,991	563,746	521,401	519,594	553,019	560,509
Navigational Services to Shipping	Establishments	16	17	18	18	18	20	18	23	21
	Employees	75	110	96	106	92	88	75	123	135
	Payroll	6,125	5,619	5,983	6,057	5,597	6,914	5,851	7,635	8,248
Marinas	Establishments	212	206	210	206	190	196	194	191	194
	Employees	781	773	811	787	737	776	826	811	877
	Payroll	35,475	34,675	35,760	37,606	36,583	38,469	40,971	41,403	44,425

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = not available.

Tables | New York

2019 Economic Impacts of the New York Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	42,006	6,492,898	1,346,110	2,257,380	2,708	150,209	51,853	72,716
Commercial Harvesters	1,324	75,451	21,690	33,356	1,324	75,451	21,690	33,356
Seafood Processors & Dealers	956	163,160	62,036	80,692	99	16,946	6,443	8,381
Importers	15,719	5,142,677	824,212	1,567,713	0	0	0	0
Seafood Wholesalers & Distributors	4,585	392,557	132,709	178,936	98	8,352	2,824	3,807
Retail	19,421	719,054	305,463	396,683	1,187	49,460	20,896	27,172

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	49,844	50,627	55,030	57,291	56,775	69,163	52,574	46,787	46,864	42,176
Finfish	19,959	21,736	22,705	22,574	18,597	18,541	18,299	17,104	14,996	18,387
Shellfish and Other	29,885	28,891	32,325	34,718	38,178	50,622	34,275	29,683	31,868	23,789
Key Species	-	-	-	-	-	-	-	-	-	
American lobster	3,165	1,398	999	938	985	711	1,037	761	658	690
Atlantic surf clam	3,929	545	3,096	2,410	NA	2,115	2,507	1,465	1,019	NA
Eastern oyster	2,047	2,174	2,227	4,149	9,372	9,001	NA	1,442	1,666	1,772
Loligo squid	4,516	7,250	8,648	5,949	5,448	5,413	7,830	4,924	7,946	6,793
Quahog clam	7,774	6,905	9,218	13,475	11,777	NA	11,957	11,678	9,573	8,766
Scups and porgies	2,114	2,554	3,536	2,971	2,313	3,138	2,897	2,492	2,800	3,200
Sea scallop	3,778	4,960	4,083	2,602	2,963	978	3,783	2,136	1,361	998
Softshell clam	710	351	332	848	982	2,854	1,137	596	603	892
Summer flounder	3,550	3,732	3,653	3,197	2,997	3,043	2,527	2,402	2,219	3,488
Tilefishes	4,077	4,525	4,260	4,675	4,255	3,656	2,985	3,329	3,651	4,060

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	33,775	32,152	37,104	34,440	27,669	30,272	30,233	25,166	22,868	23,581
Finfish	17,571	17,397	16,758	17,239	13,643	13,486	13,271	12,349	10,503	12,474
Shellfish and Other	16,204	14,755	20,346	17,201	14,026	16,786	16,962	12,817	12,365	11,107
Key Species	-	-	-	-	-	-	-	-	-	-
American lobster	814	344	550	497	223	147	219	150	113	112
Atlantic surf clam	5,857	809	4,590	3,452	NA	3,110	3,677	2,167	1,518	NA
Eastern oyster	81	98	108	204	422	787	NA	273	316	337
Loligo squid	3,900	5,630	7,838	4,985	5,138	4,259	6,303	3,315	4,901	4,026
Quahog clam	1,216	1,131	1,299	1,932	1,781	NA	2,174	2,027	1,787	1,952
Scups and porgies	2,691	3,735	4,307	4,575	3,175	4,050	3,504	3,465	3,354	4,068
Sea scallop	508	522	430	256	262	87	398	251	157	103
Softshell clam	116	57	54	138	160	499	243	127	129	190
Summer flounder	1,364	1,517	1,238	1,033	833	830	604	491	463	866
Tilefishes	1,586	1,521	1,413	1,468	1,383	936	745	1,051	1,161	1,127

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
American lobster	3.89	4.06	1.81	1.89	4.42	4.82	4.74	5.06	5.84	6.15
Atlantic surf clam	0.67	0.67	0.67	0.70	NA	0.68	0.68	0.68	0.67	NA
Eastern oyster	25.41	22.23	20.58	20.32	22.23	11.43	NA	5.29	5.28	5.26
Loligo squid	1.16	1.29	1.10	1.19	1.06	1.27	1.24	1.49	1.62	1.69
Quahog clam	6.39	6.10	7.10	6.97	6.61	NA	5.50	5.76	5.36	4.49
Scups and porgies	0.79	0.68	0.82	0.65	0.73	0.77	0.83	0.72	0.83	0.79
Sea scallop	7.44	9.50	9.50	10.18	11.33	11.21	9.51	8.50	8.66	9.69
Softshell clam	6.13	6.13	6.12	6.13	6.13	5.73	4.69	4.69	4.69	4.69
Summer flounder	2.60	2.46	2.95	3.09	3.60	3.67	4.19	4.89	4.80	4.03
Tilefishes	2.57	2.97	3.01	3.18	3.08	3.90	4.01	3.17	3.14	3.60

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of New York Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	407	44,540	16,956	28,764
	Private Boat	2,958	248,038	110,510	193,293
	Shore	1,341	111,815	50,656	87,226
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		4,706	404,394	178,122	309,283

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	31,162
Private Boat	297,222
Shore	116,055
Total	444,439

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	444,439

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	646	497	533	595	657	555	780	541	605	NA
Non-Coastal	24	18	30	8	19	10	29	10	14	NA
Out-of-State	69	46	53	93	155	53	113	62	103	NA
Total Anglers	740	561	616	695	830	618	922	613	722	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	334	457	374	580	434	569	270	259	304	265
Private Boat	5,374	5,528	5,652	5,961	6,457	6,400	6,915	7,372	4,652	5,952
Shore	8,459	8,221	8,607	8,668	8,511	8,302	8,580	9,003	6,286	7,194
Total Trips	14,167	14,206	14,633	15,209	15,402	15,271	15,765	16,634	11,242	13,412

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic herring[4]	H	704	732	1,391	1,520	1,190	11,460	2,105	1,052	82	3,220
	R	156	< 1	0	409	41	229	161	104	0	188
Black seabass	H	1,040	570	526	999	1,234	2,494	3,035	2,434	853	1,577
	R	2,393	1,787	9,302	4,255	3,666	7,486	13,134	16,538	5,049	9,725
Bluefish	H	2,878	3,344	3,785	2,830	4,847	2,438	2,078	3,063	1,204	3,037
	R	5,079	5,001	7,100	4,248	6,228	5,090	3,368	3,936	2,702	3,339
Scup	H	3,277	2,141	1,636	2,907	2,787	7,013	3,645	6,473	5,371	7,122
	R	3,657	3,606	4,633	6,691	4,877	7,728	12,401	15,352	7,454	6,681
Shortfin mako shark[5]	H	1	0	< 1	0	35	22	4	41	< 1	3
	R	0	24	24	3	52	21	29	5	65	< 1
Striped bass	H	1,449	1,005	928	902	804	407	698	477	182	498
	R	3,036	2,692	2,428	3,956	2,784	3,682	3,739	2,771	1,989	6,161
Summer flounder	H	596	661	1,005	1,385	1,173	1,517	1,800	1,186	641	561
	R	13,931	16,598	10,682	13,492	9,658	14,470	9,651	12,345	6,776	9,002
Tautog	H	541	323	303	473	913	581	1,069	405	163	636
	R	1,628	1,738	2,935	4,570	3,017	5,577	7,367	5,462	3,040	6,159
Weakfish	H	8	< 1	13	21	2	2	5	17	9	37
	R	7	119	30	19	< 1	14	9	139	124	311
Winter flounder	H	130	113	177	< 1	72	16	37	< 1	< 1	< 1
	R	233	168	120	15	28	3	10	< 1	43	29

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[4] Atlantic herring include Atlantic herring and Pacific herring. This species may not be equivalent to species with similar names listed in the commercial tables.
[5] Shortfin mako shark include shortfin mako and shortfin mako shark.

2018 New York State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
1,804,188 (6.8%)	547,194 (6.9%)	8,410,206 (6.4%)	572 (8.1%)	874 (8%)	1,695	0.13

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	115	142	133	150	181	183	187	195	192
	Receipts	6,784	7,380	8,279	9,946	10,681	12,890	11,541	12,531	10,840
Seafood sales, retail	Firms	214	183	205	197	188	172	161	179	157
	Receipts	18,999	16,286	16,714	15,923	14,369	13,299	12,089	13,667	15,754

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	15	18	17	17	17	17	18	16	15
	Employees	272	299	265	280	ds	310	284	232	218
	Payroll	16,976	21,372	25,666	22,776	22,687	24,100	22,323	14,970	23,756
Seafood sales, wholesale	Establishments	263	291	243	264	270	275	286	259	252
	Employees	1,798	1,876	1,839	1,937	2,051	2,056	2,149	2,038	2,033
	Payroll	72,442	76,970	78,324	84,346	87,511	93,859	97,304	95,766	90,895
Seafood sales, retail	Establishments	394	391	385	399	401	409	406	385	383
	Employees	1,586	1,660	1,674	1,796	2,054	2,163	2,226	1,889	2,294
	Payroll	32,001	35,664	38,721	45,049	51,605	53,952	60,961	49,413	75,579

Transport, Support and Marine Operations — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	41	43	49	45	42	42	38	38	38
	Employees	575	552	560	ds	ds	487	479	517	521
	Payroll	26,771	25,998	24,599	24,338	28,028	25,591	26,257	28,329	30,221
Deep Sea Freight Transportation	Establishments	30	31	23	20	23	22	21	16	17
	Employees	704	752	214	ds	ds	174	212	208	244
	Payroll	98,499	88,354	31,229	22,691	19,387	26,452	19,416	28,951	48,632
Deep Sea Passenger Transportation	Establishments	2	1	2	3	2	2	1	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	65	62	42	59	72	73	73	70	69
	Employees	1,654	1,708	ds	ds	ds	1,551	1,732	1,696	1,462
	Payroll	136,577	154,087	ds	ds	ds	185,742	196,617	174,203	156,885
Port and Harbor Operations	Establishments	8	9	18	15	15	14	14	13	15
	Employees	ds	33	1,294	196	168	230	205	257	318
	Payroll	568	1,493	105,325	12,358	10,342	13,774	15,087	14,868	25,882
Marine Cargo Handling	Establishments	13	12	6	9	12	11	9	7	6
	Employees	1,086	1,019	ds	922	835	577	429	633	574
	Payroll	68,555	66,439	ds	60,079	52,523	52,731	41,922	45,977	66,905
Navigational Services to Shipping	Establishments	37	35	53	33	36	33	36	47	45
	Employees	598	596	712	687	722	695	709	933	945
	Payroll	50,119	54,406	63,334	68,141	74,395	73,699	76,693	99,475	97,292
Marinas	Establishments	429	431	415	424	427	429	422	402	415
	Employees	2,052	2,033	1,868	1,907	1,986	1,930	1,950	1,883	1,955
	Payroll	94,654	96,408	87,124	93,212	95,900	99,181	102,523	95,528	102,012

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[2] NA = Not applicable.

Tables | Virginia

2019 Economic Impacts of the Virginia Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	23,523	3,230,751	803,235	1,250,426	12,726	840,664	318,232	432,103
Commercial Harvesters	4,111	315,892	100,337	149,636	4,111	315,892	100,337	149,636
Seafood Processors & Dealers	3,142	327,228	127,316	164,314	1,309	136,319	53,038	68,451
Importers	5,948	1,945,984	311,881	593,221	0	0	0	0
Seafood Wholesalers & Distributors	1,495	215,189	74,390	99,144	445	64,048	22,141	29,509
Retail	8,826	426,458	189,312	244,111	6,861	324,404	142,715	184,506

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	183,179	193,976	174,524	163,017	172,831	197,531	204,703	188,004	178,655	184,269
Finfish	54,073	57,015	60,122	54,873	53,803	50,279	43,833	46,825	47,676	46,959
Shellfish and Other	129,106	136,961	114,402	108,144	119,028	147,252	160,869	141,179	130,979	137,310
Key Species	-	-	-	-	-	-	-	-	-	
Atlantic croaker	6,025	4,571	7,534	6,247	4,186	4,059	3,071	2,705	2,893	861
Black sea bass	928	1,003	1,401	1,716	1,365	1,607	2,071	2,074	1,829	2,011
Blue crab	29,133	26,274	24,561	23,991	27,047	30,607	38,267	25,245	22,394	33,408
Goosefish	594	752	1,217	920	654	516	401	170	150	121
Menhaden	34,476	32,995	31,107	25,343	26,046	28,202	24,236	22,865	27,716	26,922
Oysters	5,202	6,832	11,949	25,318	29,099	36,498	33,788	49,284	43,452	38,634
Sea scallop	70,204	79,427	54,076	32,610	33,643	48,806	51,832	35,036	35,067	34,983
Spot	975	3,431	770	2,406	5,763	2,263	449	3,439	1,034	2,523
Striped bass	3,635	4,497	5,542	5,701	6,390	4,363	4,664	5,912	5,994	4,581
Summer flounder	4,202	5,956	7,725	8,513	4,733	5,694	5,268	4,794	4,570	5,030

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	510,405	496,582	462,442	381,577	389,164	408,157	361,966	338,613	362,794	392,372
Finfish	455,715	440,920	415,617	344,094	352,340	372,922	320,514	302,063	327,036	350,774
Shellfish and Other	54,690	55,662	46,825	37,482	36,823	35,235	41,452	36,551	35,757	41,598
Key Species	-	-	-	-	-	-	-	-	-	-
Atlantic croaker	7,873	5,569	6,940	6,325	4,814	4,506	3,934	2,892	2,440	909
Black sea bass	264	275	392	496	388	422	553	745	606	646
Blue crab	38,490	39,656	33,143	24,258	24,205	21,378	26,298	22,011	21,384	27,119
Goosefish	596	604	907	846	587	445	366	216	203	176
Menhaden	433,241	414,159	390,318	317,950	326,817	352,855	302,899	284,226	311,544	332,512
Oysters	1,177	1,515	1,951	3,243	3,765	4,587	4,076	4,087	3,802	3,435
Sea scallop	9,167	8,260	5,798	2,958	2,752	4,020	4,579	3,925	3,869	3,894
Spot	1,024	3,741	613	2,085	3,983	1,457	275	1,635	601	1,186
Striped bass	2,139	2,077	2,175	1,680	1,995	1,331	1,241	1,082	1,277	1,389
Summer flounder	2,592	4,065	4,122	4,794	2,049	2,274	1,663	1,254	1,254	1,918

Average Annual Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	0.77	0.82	1.09	0.99	0.87	0.90	0.78	0.94	1.19	0.95
Black sea bass	3.52	3.65	3.57	3.46	3.52	3.80	3.74	2.78	3.02	3.11
Blue crab	0.76	0.66	0.74	0.99	1.12	1.43	1.46	1.15	1.05	1.23
Goosefish	1.00	1.25	1.34	1.09	1.11	1.16	1.10	0.79	0.74	0.69
Menhaden	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08
Oysters	4.42	4.51	6.12	7.81	7.73	7.96	8.29	12.06	11.43	11.25
Sea scallop	7.66	9.62	9.33	11.02	12.23	12.14	11.32	8.93	9.06	8.98
Spot	0.95	0.92	1.26	1.15	1.45	1.55	1.63	2.10	1.72	2.13
Striped bass	1.70	2.16	2.55	3.39	3.20	3.28	3.76	5.46	4.69	3.30
Summer flounder	1.62	1.47	1.87	1.78	2.31	2.50	3.17	3.82	3.64	2.62

2019 Economic Impacts of Virginia Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	174	16,632	5,540	9,847
	Private Boat	1,138	129,067	45,426	83,298
	Shore	1,798	197,083	74,445	129,558
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		3,111	342,782	125,411	222,703

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	10,129
Private Boat	135,913
Shore	144,558
Total	290,600

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	290,600

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	496	516	412	419	341	359	394	329	324	NA
Non-Coastal	63	56	78	74	53	59	86	80	45	NA
Out-of-State	279	320	193	267	206	203	244	263	218	NA
Total Anglers	838	892	684	760	600	620	724	672	587	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	52	31	45	59	53	66	39	43	25	37
Private Boat	4,811	4,256	3,646	3,399	3,079	2,451	2,660	2,548	2,215	2,651
Shore	3,882	4,590	4,596	4,549	4,277	4,210	4,549	4,157	4,147	4,550
Total Trips	8,745	8,876	8,287	8,007	7,410	6,727	7,247	6,749	6,386	7,238

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	12,962	8,891	8,786	12,517	9,534	8,024	7,277	7,645	5,472	3,056
	R	13,471	14,160	15,140	18,480	10,314	6,815	6,993	8,464	5,359	6,643
Black sea bass	H	63	36	13	46	78	66	81	97	87	231
	R	1,487	1,170	1,961	1,506	1,962	647	1,869	2,272	1,472	1,903
Cobia	H	17	13	1	24	22	39	44	15	81	56
	R	21	27	17	36	58	41	81	77	195	185
Red drum	H	44	0	91	334	252	22	16	347	6	206
	R	88	157	8,323	577	1,109	79	165	1,723	85	866
Spot	H	5,631	10,129	10,148	11,734	13,653	1,731	5,279	15,944	7,361	7,647
	R	4,081	7,291	6,371	7,549	4,125	1,897	2,858	3,336	3,043	4,510
Spotted seatrout	H	77	644	392	154	85	23	164	172	190	596
	R	2,530	3,463	1,257	738	1,059	834	3,709	3,155	4,455	2,866
Striped bass	H	369	328	258	302	131	208	138	108	57	45
	R	586	389	289	503	738	1,709	1,638	1,338	1,247	655
Summer flounder	H	564	659	678	560	439	334	212	188	146	150
	R	5,780	4,449	2,658	1,510	2,230	1,718	567	1,610	874	2,300
Tautog	H	324	153	66	20	87	24	40	22	8	27
	R	364	110	61	54	197	46	144	76	73	75
Weakfish	H	13	19	46	4	32	10	38	14	6	38
	R	533	744	274	205	375	232	1,467	455	234	817

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.

2018 Virginia State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
632,995 (2.4%)	202,379 (2.6%)	3,386,839 (2.6%)	189 (2.7%)	309 (2.8%)	532	1.08

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	56	73	76	84	83	85	94	66	65
	Receipts	3,698	3,792	4,691	4,276	5,720	5,849	7,389	5,476	6,149
Seafood sales, retail	Firms	82	78	87	94	90	80	80	75	69
	Receipts	6,951	7,819	8,373	7,612	7,084	7,489	7,698	8,170	7,499

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	23	18	19	18	20	17	18	21	20
	Employees	961	899	919	781	804	790	790	839	869
	Payroll	30,460	33,285	32,955	30,682	29,763	31,614	32,991	46,474	48,483
Seafood sales, wholesale	Establishments	76	62	64	70	65	65	60	58	57
	Employees	518	469	492	483	448	444	457	379	363
	Payroll	17,901	15,733	14,271	14,719	14,769	16,089	16,115	16,872	15,082
Seafood sales, retail	Establishments	59	58	51	55	57	59	56	56	58
	Employees	265	277	280	254	224	279	247	215	210
	Payroll	5,480	5,453	5,563	5,526	5,537	6,641	7,255	6,222	6,262

Transport, Support and Marine Operations — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	56	51	59	54	56	54	60	53	58
	Employees	ds	ds	ds	ds	ds	30,622	30,387	27,924	29,074
	Payroll	ds	ds	ds	ds	ds	1,955,354	1,922,736	1,817,205	2,000,127
Deep Sea Freight Transportation	Establishments	17	21	19	12	12	12	14	13	12
	Employees	421	492	ds	ds	ds	254	301	270	322
	Payroll	35,917	42,018	ds	ds	ds	33,057	38,674	34,928	35,942
Deep Sea Passenger Transportation	Establishments	1	2	1	1	1	1	1	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	7	7	12	11	12	10	12	12	12
	Employees	ds	ds	ds	177	152	186	325	387	447
	Payroll	ds	ds	ds	10,077	9,264	11,951	18,059	24,801	28,640
Port and Harbor Operations	Establishments	7	6	13	14	15	14	13	14	15
	Employees	ds	ds	ds	ds	ds	1,922	2,167	2,052	2,114
	Payroll	ds	ds	ds	ds	ds	132,983	125,111	144,903	156,178
Marine Cargo Handling	Establishments	7	11	6	8	8	8	8	6	7
	Employees	ds	ds	ds	ds	ds	ds	805	751	829
	Payroll	41,280	41,262	ds	ds	ds	ds	50,903	54,946	61,037
Navigational Services to Shipping	Establishments	26	21	20	18	20	20	18	26	28
	Employees	411	419	428	303	322	302	294	314	332
	Payroll	22,910	22,132	25,732	20,283	21,348	20,746	19,600	21,965	23,293
Marinas	Establishments	115	110	105	113	107	108	103	96	102
	Employees	868	818	673	840	814	818	821	636	773
	Payroll	24,182	23,379	18,874	24,468	24,436	25,146	25,777	19,270	25,297

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[2] NA = Not applicable.

South Atlantic Region

- East Florida
- Georgia
- North Carolina
- South Carolina

A commercial vessel in Florida.
Photo: NOAA Fisheries/Cameron Rhodes

MANAGEMENT CONTEXT

The South Atlantic Region includes East Florida, Georgia, North Carolina, and South Carolina. Federal fisheries in this region are managed by the South Atlantic Fishery Management Council and NOAA Fisheries under eight fishery management plans. The coastal migratory pelagic resources and spiny lobster FMPs are managed jointly with the Gulf of Mexico Fishery Management Council.

South Atlantic Region FMPs

- Coastal migratory pelagic resources (with GMFMC)
- Coral, coral reef and live/hardbottom habitat
- Dolphin/wahoo
- Golden crab
- Pelagic sargassum habitat
- Shrimp
- Snapper grouper
- Spiny lobster (with GMFMC)

Five of the stocks/complexes covered in these FMPs were listed as overfished in 2019: hogfish (Florida Keys / East Florida stock), red snapper (South Atlantic stock), red porgy, snowy grouper, and red grouper (South Atlantic stock).

Five stocks/complexes were subject to overfishing in 2019: red snapper (South Atlantic stock); speckled hind; Warsaw grouper; red grouper (South Atlantic stock); and greater amberjack (South Atlantic stock), which was added in 2019. Hogfish and blueline tilefish were removed from the overfishing list in 2019.

Catch Share Programs

One catch share program has been implemented in the South Atlantic: the South Atlantic Wreckfish ITQ Program. This catch share program is described below.

Wreckfish ITQ Program: This program was implemented in 1992 and is the only catch share program in the South Atlantic Region. The program was developed to create incentives for the conservation of wreckfish; provide a management regime that promotes stability and facilitates long-range planning and investment by harvesters and dealers; promote management regimes that minimize gear and area conflicts among fishermen; minimize the tendency for overcapitalization in the harvesting and processing/distribution sectors; and provide a reasonable opportunity for fishermen to make adequate returns from commercial fishing by limiting entry into the program. NOAA Fisheries continues to collect data on this program to develop standard performance indicators that measure its basic economic performance.

COMMERCIAL FISHERIES — SOUTH ATLANTIC REGION

In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

Key South Atlantic Commercial Species

- Blue crab
- Clams
- Flounders
- Groupers
- King mackerels
- Oysters
- Shrimp
- Snappers
- Swordfish
- Tunas

Economic Impacts

The premise behind economic impact modeling is that every dollar spent in a regional economy (direct impact) is either saved or re-spent on additional goods or services. If those dollars are re-spent on other goods and services in the regional economy, this spending generates additional economic activity in the region.[1]

Four different measures are commonly used to show how commercial fisheries landings affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected

[1] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]

by an activity, such as commercial fishing. The category includes both the direct sales of fish landed and sales made between businesses and households resulting from the original sale. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the sales of seafood or purchases of inputs to commercial fishing. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. The United States seafood industry is defined here as the commercial fishing sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers.[2,3]

This report provides estimates of total economic impacts for the nation and for each of the 23 coastal states. Total economic impacts for each state and the nation represent the sum of direct impacts; indirect impacts (in this case, the impact from suppliers to the seafood industry); and induced impacts (spending by employees on personal and household expenditures, where employees of both the seafood industry and its full supply chain are included). That is, the total economic impact estimates reported here measure jobs, sales, value-added, and income impacts from the seafood industry as well as the economic activity generated throughout each region's broader economy from this industry.

In 2019, the commercial fishing and seafood industry in Florida generated the largest employment impacts in the South Atlantic region with 81,647 full- and part-time jobs. Florida also generated the largest sales impacts ($19.4 billion), value-added impacts ($6.5 billion), and income impacts ($3.6 billion).

Landings Revenue

In 2019, landings revenue in the South Atlantic Region totaled $201.3 million, a 20% increase from 2010 (a 3% increase in real terms after adjusting for inflation) and a 14% increase from 2018. Landings revenue was highest in North Carolina ($87.5 million), followed by East Florida ($64.5 million).

Shellfish and other landings revenue accounted for 73% of all landings revenue. In 2019, shrimp ($71.9 million), blue crab ($40.8 million), and flounders ($10.8 million) had the highest landings revenue in this region. Together, these top three species accounted for 61% of total landings revenue.

From 2010 to 2019, shrimp (56%, 34% in real terms), tunas (40%, 20% in real terms), and snappers (37%, 17% in real terms) had the largest increases, while clams (-28%, -39% in real terms), groupers (-19%, -31% in real terms), and swordfish (-18%, -30% in real terms) had the largest decreases. From 2018 to 2019, oysters (26%), shrimp (22%), and snappers (21%) had the largest increases, while clams (-28%), tunas (-10%), and flounders (-2%) had the largest decreases.

Commercial Revenue: Largest Increases

From 2010:
- Shrimp (56%, 34% in real terms)
- Tunas (40%, 20% in real terms)
- Snappers (37%, 17% in real terms)

From 2018:
- Oysters (26%)
- Shrimp (22%)
- Snappers (21%)

Commercial Revenue: Largest Decreases

From 2010:
- Clams (-28%, -39% in real terms)
- Groupers (-19%, -31% in real terms)
- Swordfish (-18%, -30% in real terms)

From 2018:
- Clams (-28%)
- Tunas (-10%)
- Flounders (-2%)

Landings

In 2019, South Atlantic Region commercial fishermen landed over 124.6 million pounds of finfish and

[2] The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates. [Available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf.]
[3] Commercial economic impacts data were not available for East Florida specifically; data for the entire state of Florida are reported here.

shellfish. This represents a 3% increase from 2010 and a 16% increase from 2018. Shrimp contributed the highest landings volume in the region, accounting for 36% of total landing weight.

From 2010 to 2019, shrimp (92%), tunas (6%), and snappers (4%) had the largest increases, while oysters (-53%), clams (-47%), and groupers (-46%) had the largest decreases. From 2018 to 2019, shrimp (39%), blue crab (22%), and swordfish (21%) had the largest increases, while clams (-41%) and tunas (-2%) had the largest decreases.

Commercial Landings: Largest Increases

From 2010:
- Shrimp (92%)
- Tunas (6%)
- Snappers (4%)

From 2018:
- Shrimp (39%)
- Blue crab (22%)
- Swordfish (21%)

Commercial Landings: Largest Decreases

From 2010:
- Oysters (-53%)
- Clams (-47%)
- Groupers (-46%)

From 2018:
- Clams (-41%)
- Tunas (-2%)

Prices

In 2019, oysters ($13.38 per pound) received the highest ex-vessel price in the region. Landings of blue crab ($1.22 per pound) had the lowest ex-vessel price. From 2010 to 2019, oysters (168%, 129% in real terms), flounders (68%, 44% in real terms), and groupers (49%, 28% in real terms) had the largest increases, while shrimp (-19%, -30% in real terms) and swordfish (-4%, -18% in real terms) had the largest decreases. From 2018 to 2019, clams (21%), oysters (7%), and snappers (2%) had the largest increases, while shrimp (-12%), flounders (-12%), and tunas (-8%) had the largest decreases.

RECREATIONAL FISHERIES — SOUTH ATLANTIC REGION

In this report, recreational fishing refers to fishing for leisure rather than to sell fish (commercial fishing) or for subsistence. This recreational fisheries section reports on economic impacts and expenditures, angler participation, fishing trips, and catch of key species/species groups.[4]

Key South Atlantic Recreational Species[5]

- Atlantic croaker and spot
- Black sea bass
- Bluefish
- Dolphinfish
- King mackerel
- Red drum
- Sharks[6]
- Sheepshead
- Spanish mackerel
- Spotted seatrout

Economic Impacts and Expenditures

The economic contribution of recreational fishing activities in the South Atlantic Region is based on spending by recreational anglers.[7] Total annual trip expenditures are estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusting by the CPI (consumer price index) to the current year. After 2018, state level durable expenditures and durable impacts will no longer be available due to changes in the availability of angler participation data at the state level.

Four different measures are commonly used to show how angler expenditures affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as recreational fishing. The category includes both

[4] Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.
[5] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[6] Atlantic sharpnose shark, blacktip shark, requiem shark, requiem shark family, requiem shark genus, shark species, and unidentified (sharks).
[7] Trip expenditure estimates were generated from the 2016/2017 National Marine Recreational Fishing Expenditure Survey (Lovell et al., 2020). Durable goods expenditures were generated from the 2019 National Marine Recreational Fishing Expenditure Survey. [For citations: Publications-Recreational Fisheries Economics Research.]

the direct sales made by the angler and sales made between businesses and households resulting from that original sale by the angler. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in number of jobs. Note that these categories are not additive. NOAA Fisheries uses a regional impact modeling software, called IMPLAN, to estimate these four types of impacts.

The economic contributions for trip expenditures from recreational fishing in 2019 were estimated using IMPLAN version 3, with base year data from 2017. Models for each state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2019 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the South Atlantic Region were generated in North Carolina (16,421 jobs), followed by East Florida (13,097 jobs) and South Carolina (9,109 jobs).The largest sales impacts were observed in North Carolina ($1.7 billion), followed by East Florida ($1.3 billion) and South Carolina ($823.5 million). The biggest income impacts were generated in North Carolina ($584.5 million), followed by East Florida ($456.6 million) and South Carolina ($273 million). The greatest value-added impacts were in North Carolina ($1 billion), followed by East Florida ($899.4 million) and South Carolina ($520.1 million).

A large portion of the approximately 3.2 billion in trip expenses came from trips in the Shore (67.3%) and Private Boat (27.4%) sectors.

Participation

Due to changes in data availability after 2018, angler participation data is not being reported at the state level for 2019.

Fishing Trips

In 2019, recreational fishermen took 69.3 million fishing trips in the South Atlantic Region. This number represented a 13% decrease from 2010 and an 8% decrease from 2018. The largest proportions of trips were taken in the shore mode (69%) and private boat (30%). States with the highest number of recorded trips in the South Atlantic Region were East Florida (35.9 million trips) and North Carolina (17.5 million trips).

Harvest and Release Trends

Of the South Atlantic Region's key species and species groups, bluefish (22.9 million fish), Atlantic croaker and spot (21.9 million fish), and spotted seatrout (20.8 million fish), were most frequently caught by recreational fishermen. The text box below shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2010 to 2019, king mackerel (77%), dolphinfish (29%), and Spanish mackerel (18%) had the largest increases, while sharks (-45%), sheepshead (-15%), and red drum (-10%) had the largest decreases. From 2018 to 2019, black sea bass (32%), Spanish mackerel (31%), and king mackerel (16%) had the largest increases, while sheepshead (-32%), dolphinfish (-19%), and sharks (-15%) had the largest decreases.

Harvest and Release: Largest Increases

From 2010:

- King mackerel (77%)
- Dolphinfish (29%)
- Spanish mackerel (18%)

From 2018:

- Black sea bass (32%)
- Spanish mackerel (31%)
- King mackerel (16%)

Harvest and Release: Largest Decreases

From 2010:

- Sharks (-45%)
- Sheepshead (-15%)
- Red drum (-10%)

From 2018:

- Sheepshead (-32%)
- Dolphinfish (-19%)
- Sharks (-15%)

MARINE ECONOMY — SOUTH ATLANTIC REGION

For this report, the marine economy refers to the fishing and marine-related industries in a coastal state. The state marine economy consists of two industry sectors: 1) seafood sales and processing (employer establishments and non-employer firms); and 2) transportation support and marine operations (employer establishments). These sectors include several different marine-related industries.[8]

Note that when discussing the marine economy in the South Atlantic Region, all statistics include the entire state of Florida and not just East Florida.

The Commercial Fishing Location Quotient (CFLQ) measures the size of the commercial fishing sector in a state's economy relative to the size of the commercial fishing sector in the national economy.[9] The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The U.S. CFLQ is 1. If a state CFLQ is less than 1, then less commercial fishing occurs in this state than the national average. If a state CFLQ is greater than 1, then more commercial fishing occurs in this state than the national average.

Florida had the highest CFLQ at 0.84. South Carolina had a CFLQ value of 0.11.

In 2018, 1.1 million employer establishments operated throughout the entire South Atlantic Region (including marine and non-marine related establishments). These establishments employed 18.4 million workers and had a total annual payroll of $872.5 billion. The combined gross state product of East Florida, Georgia, North Carolina, and South Carolina was approximately $2.5 trillion in 2018.

Seafood Sales and Processing

Seafood Product Preparation and Packaging: In 2018, the South Atlantic Region had 484 non-employer firms in the seafood product preparation and packaging sector (a 23% increase from 2010). Annual receipts for these firms totaled $40.1 million (a 51% increase in real terms from 2010). There were 42 employer firms in the seafood product preparation and packaging sector (an 18% decrease from 2010). The greatest number of establishments in this sector was in East Florida (309), followed by Georgia (114) and North Carolina (66).

Retail Seafood Sales: In 2018, there were 614 non-employer firms in seafood retail sales in the South Atlantic Region (a 7% decrease from 2010). Annual receipts for these firms totaled $55.2 million (a 1% increase in real terms from 2010). There were 409 employer firms in the seafood retail sector (a 24% increase from 2010). The greatest number of establishments in this sector was in East Florida (535), followed by North Carolina (227) and Georgia (142).

Wholesale Seafood Sales: There were 318 employer firms in the seafood wholesale sector in the South Atlantic Region in 2018 (an 8% decrease from 2010). The greatest number of establishments in this sector was in East Florida (232), followed by North Carolina (50) and Georgia (21).

Transportation Support and Marine Operations

Data for the transportation support and marine operations sectors of the South Atlantic Region's economy were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the regional economy. For example, in 2018, the ship and boat building sector in the South Atlantic Region accounted for $1.4 billion in payroll. The deep sea passenger transportation sector in Florida alone accounted for $1 billion in payroll in 2018.

[8] Unless otherwise stated, data are from the U.S. Census Bureau. County Business Patterns data and Nonemployer Statistics available at https://www.census.gov. The Census data are only available through 2018. GDP and Compensation of Employees data was obtained from the U.S. Bureau of Economic Analysis, 'Table SAGDP1 Gross Domestic Product' and 'Table SA6N Compensation of Employees by NAICS Industry,' respectively. Percentage changes in inflation-adjusted (real) dollar terms are calculated using the annual Gross Domestic Product implicit price deflator, which was obtained from the Federal Reserve Bank of St. Louis (https://fred.stlouisfed.org/series/USAGDPDEFAISMEI).
[9] U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

Tables | South Atlantic Region

2019 Economic Impacts of the South Atlantic Seafood Industry (jobs, thousands of dollars)

		With Imports				Without Imports			
	Landings Revenue	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Florida[1]	237,631	81,647	19,373,993	3,619,588	6,476,479	9,338	964,486	254,045	389,720
Georgia	24,271	19,883	3,278,306	725,453	1,194,897	2,681	146,413	57,471	78,255
North Carolina	87,463	8,784	947,383	255,891	387,119	5,212	301,886	123,774	164,399
South Carolina	25,113	1,739	168,148	51,035	74,261	1,341	84,830	34,681	46,184

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	167,662	174,705	176,455	166,948	193,572	199,981	193,303	203,996	176,725	201,349
Finfish	54,653	57,159	56,582	55,043	57,158	51,133	51,522	55,728	51,033	54,371
Shellfish and Other	113,009	117,546	119,873	111,905	136,414	148,848	141,782	148,268	125,692	146,978
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	36,435	34,422	38,018	44,563	47,048	46,536	37,677	37,550	35,150	40,753
Clams	4,458	3,804	3,801	3,054	3,559	8,013	5,857	4,847	4,432	3,192
Flounders	11,179	9,530	8,014	7,538	13,495	13,133	12,428	12,255	10,969	10,800
Groupers	3,873	3,802	3,445	3,385	3,474	3,190	2,564	2,728	2,936	3,129
King mackerels	7,571	6,614	5,569	5,242	5,831	5,623	6,291	7,408	7,037	7,721
Oysters	7,131	6,852	5,492	6,080	7,209	16,536	7,234	8,610	7,197	9,038
Shrimp	45,938	53,765	55,002	39,023	50,967	51,568	67,249	76,514	58,875	71,871
Snappers	3,490	3,897	4,214	3,890	4,037	3,564	3,426	3,737	3,937	4,777
Swordfish	7,851	10,031	9,536	8,435	6,858	5,910	5,765	5,184	5,565	6,463
Tunas	4,075	5,162	7,053	6,107	7,053	5,673	5,003	7,260	6,300	5,687

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	121,218	126,496	111,388	103,238	115,313	115,535	108,134	119,846	107,277	124,643
Finfish	47,113	44,762	36,867	34,379	39,890	33,811	31,427	31,248	29,050	30,622
Shellfish and Other	74,105	81,735	74,522	68,859	75,422	81,724	76,706	88,598	78,227	94,021
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	39,014	42,564	40,721	33,042	34,392	40,593	35,251	30,008	27,440	33,518
Clams	681	630	661	472	529	887	775	702	609	361
Flounders	5,108	4,355	2,963	2,890	4,734	4,179	3,145	3,052	2,629	2,944
Groupers	1,105	953	859	787	762	675	537	546	571	599
King mackerels	4,245	3,048	2,457	1,913	2,381	2,267	2,634	3,113	2,729	3,204
Oysters	1,428	1,233	903	1,038	1,152	1,053	1,073	720	575	675
Shrimp	23,174	22,960	22,760	14,132	15,894	23,289	29,992	38,531	32,115	44,588
Snappers	1,196	1,295	1,349	1,221	1,191	1,042	973	1,033	1,045	1,247
Swordfish	2,379	2,721	2,734	2,466	1,629	1,731	1,695	1,456	1,688	2,049
Tunas	1,842	2,234	2,496	2,390	2,721	2,069	2,140	2,617	1,991	1,956

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Blue crab	0.93	0.81	0.93	1.35	1.37	1.15	1.07	1.25	1.28	1.22
Clams	6.55	6.04	5.75	6.47	6.73	9.03	7.56	6.91	7.28	8.83
Flounders	2.19	2.19	2.70	2.61	2.85	3.14	3.95	4.02	4.17	3.67
Groupers	3.51	3.99	4.01	4.30	4.56	4.73	4.78	5.00	5.15	5.23
King mackerels	1.78	2.17	2.27	2.74	2.45	2.48	2.39	2.38	2.58	2.41
Oysters	4.99	5.56	6.08	5.86	6.26	15.71	6.74	11.96	12.51	13.38
Shrimp	1.98	2.34	2.42	2.76	3.21	2.21	2.24	1.99	1.83	1.61
Snappers	2.92	3.01	3.12	3.19	3.39	3.42	3.52	3.62	3.77	3.83
Swordfish	3.30	3.69	3.49	3.42	4.21	3.41	3.40	3.56	3.30	3.15
Tunas	2.21	2.31	2.83	2.55	2.59	2.74	2.34	2.77	3.16	2.91

[1] Landings revenue is for East Florida. The rest of the information in this row is for the entire state of Florida.

2019 Economic Impacts of the South Atlantic Recreational Fishing Expenditures (thousands of dollars, trips)

	Trips	#Jobs	Sales	Income	Value Added
East Florida	35,930	13,097	1,345,167	456,601	899,445
Georgia	4,021	2,417	206,670	67,761	129,622
North Carolina	17,540	16,421	1,667,085	584,477	1,009,182
South Carolina	11,839	9,109	823,546	273,012	520,121

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)[1]

Fishing Mode	Trip Expenditures
For-Hire	169,249
Private Boat	877,300
Shore	2,151,384
Total	3,197,932

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	3,197,932

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	1,933	1,893	2,135	2,092	2,189	1,753	1,873	1,750	1,954	NA
Non-Coastal	536	450	502	396	530	475	472	401	465	NA
Total Anglers	2,470	2,343	2,637	2,488	2,719	2,229	2,345	2,151	2,419	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	350	360	362	392	448	508	540	560	523	578
Private Boat	25,415	23,391	20,786	20,495	22,194	21,753	21,252	21,506	22,890	20,754
Shore	54,096	52,923	48,186	47,627	52,768	53,562	51,317	54,849	51,687	47,997
Total Trips	79,861	76,674	69,334	68,513	75,410	75,824	73,109	76,914	75,101	69,329

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker and spot	H	9,229	15,301	11,548	14,762	17,704	18,413	12,502	7,209	6,247	6,768
	R	11,600	19,797	15,980	25,015	29,222	24,075	24,625	14,655	15,454	15,111
Black sea bass	H	1,330	933	687	629	1,113	727	553	620	351	417
	R	7,037	10,197	11,658	7,259	15,547	11,307	10,161	11,526	5,967	7,897
Bluefish	H	10,881	10,637	5,949	8,448	8,571	7,176	7,116	5,525	6,213	6,022
	R	22,284	18,670	12,110	19,009	13,887	14,742	13,232	13,106	12,898	16,901
Dolphinfish	H	1,212	1,421	1,436	1,142	1,618	2,255	1,345	1,666	1,807	1,196
	R	244	885	246	448	701	889	131	629	504	684
King mackerel	H	474	302	254	236	298	323	526	637	681	789
	R	160	104	97	78	199	144	123	323	285	332
Red drum	H	1,781	1,518	1,422	2,048	1,958	1,585	2,010	2,256	2,239	1,302
	R	11,626	6,767	8,857	9,458	8,787	7,835	9,806	10,164	9,644	10,784
Sharks	H	64	59	65	151	137	45	162	34	25	121
	R	7,485	6,357	6,689	12,893	8,491	10,102	6,926	4,522	4,879	4,047
Sheepshead	H	2,647	2,357	1,630	2,056	2,658	1,572	2,415	1,885	2,604	1,671
	R	2,281	2,089	2,805	2,288	3,474	3,177	2,944	2,536	3,525	2,511
Spanish mackerel	H	3,638	2,644	2,034	3,764	2,577	1,461	2,866	1,741	2,309	3,288
	R	2,193	1,411	1,164	2,708	1,878	1,060	2,017	1,460	2,944	3,597
Spotted seatrout	H	3,360	2,611	5,115	3,608	2,821	1,805	3,543	3,904	2,804	4,379
	R	20,219	17,352	18,486	13,513	14,324	13,867	15,163	15,380	23,720	16,410

[1] NA = not available.
[2] East Florida anglers estimates are not available for the non-coastal mode.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.

Tables | East Florida

2019 Economic Impacts of the Florida Seafood Industry (thousands of dollars)[1]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	81,647	19,373,993	3,619,588	6,476,479	9,338	964,486	254,045	389,720
Commercial Harvesters	6,098	473,077	147,440	196,494	6,098	473,077	147,440	196,494
Seafood Processors & Dealers	4,751	905,502	175,242	344,509	498	101,897	19,720	38,768
Importers	43,173	14,124,683	2,263,750	4,305,822	0	0	0	0
Seafood Wholesalers & Distributors	10,436	1,413,773	555,042	690,546	412	55,745	21,885	27,228
Retail	17,189	2,456,957	478,115	939,109	2,330	333,767	65,000	127,231

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	52,384	62,356	61,144	50,464	58,154	52,339	56,962	64,096	58,503	64,502
Finfish	25,419	25,921	25,929	23,897	26,663	23,302	22,818	23,027	23,441	24,854
Shellfish and Other	26,965	36,434	35,215	26,567	31,492	29,037	34,144	41,069	35,062	39,648
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	3,649	4,699	5,172	4,220	3,402	3,641	3,793	4,682	4,325	4,957
Clams	332	287	145	46	61	58	32	NA	1	NA
Groupers	620	631	906	744	799	883	685	674	729	674
King mackerel	6,902	5,534	4,695	4,348	4,585	4,805	5,314	6,058	5,831	6,097
Lobsters	2,825	3,213	1,891	3,442	5,152	3,736	3,032	1,966	3,580	2,631
Sharks	374	355	299	383	508	573	425	529	386	229
Shrimp	17,252	24,536	21,969	14,354	18,312	16,353	22,601	29,967	23,495	28,167
Snappers	1,454	1,808	1,979	1,898	2,224	1,700	1,381	1,624	1,609	1,973
Spanish mackerel	2,414	2,687	2,463	2,678	2,652	2,171	2,534	2,760	2,918	2,834
Swordfish	3,664	3,785	4,420	3,129	3,819	2,607	2,637	1,917	2,805	3,527

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	31,282	33,399	30,893	24,038	24,973	25,288	28,745	36,749	35,053	45,476
Finfish	16,959	16,050	14,296	12,509	13,581	12,163	12,068	12,027	12,328	12,559
Shellfish and Other	14,323	17,349	16,597	11,529	11,392	13,125	16,678	24,722	22,726	32,917
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	2,728	3,663	3,769	2,491	1,659	1,783	1,901	2,501	2,013	2,311
Clams	42	38	18	7	8	8	3	NA	NA	NA
Groupers	167	158	226	178	179	187	142	137	141	129
King mackerel	3,903	2,633	2,145	1,562	1,812	1,859	2,162	2,438	2,191	2,481
Lobsters	481	515	337	486	543	481	394	256	528	344
Sharks	719	698	577	631	463	554	249	442	296	168
Shrimp	8,751	10,531	9,208	5,316	5,808	7,072	10,601	19,002	17,305	27,733
Snappers	510	612	645	623	670	506	407	447	415	506
Spanish mackerel	3,553	3,433	2,597	2,265	2,585	1,808	2,461	2,673	2,926	3,005
Swordfish	1,024	1,004	1,218	782	778	753	722	521	811	1,016

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Blue crab	1.34	1.28	1.37	1.69	2.05	2.04	1.99	1.87	2.15	2.15
Clams	7.89	7.62	7.97	6.35	7.62	7.48	9.83	NA	11.19	NA
Groupers	3.72	3.99	4.01	4.18	4.46	4.71	4.80	4.91	5.17	5.22
King mackerel	1.77	2.10	2.19	2.78	2.53	2.58	2.46	2.48	2.66	2.46
Lobsters	5.87	6.24	5.60	7.08	9.48	7.76	7.70	7.68	6.78	7.65
Sharks	0.52	0.51	0.52	0.61	1.10	1.03	1.71	1.20	1.30	1.37
Shrimp	1.97	2.33	2.39	2.70	3.15	2.31	2.13	1.58	1.36	1.02
Snappers	2.85	2.96	3.07	3.04	3.32	3.36	3.40	3.63	3.88	3.90
Spanish mackerel	0.68	0.78	0.95	1.18	1.03	1.20	1.03	1.03	1.00	0.94
Swordfish	3.58	3.77	3.63	4.00	4.91	3.46	3.65	3.68	3.46	3.47

[1] Information reported in this table is for the entire state of Florida.
[2] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of East Florida Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	973	102,489	36,112	61,071
	Private Boat	4,649	478,359	158,397	320,620
	Shore	7,475	764,318	262,092	517,754
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		13,097	1,345,167	456,601	899,445

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	58,396
Private Boat	484,002
Shore	606,921
Total	1,149,320

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	1,149,320

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	1,033	1,109	1,181	1,263	1,334	1,001	1,059	975	1,227	NA
Non-Coastal	0	0	0	0	0	0	0	0	0	NA
Out-of-State	629	553	514	540	807	819	674	613	913	NA
Total Anglers	1,662	1,662	1,695	1,803	2,141	1,821	1,733	1,588	2,140	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	132	141	160	161	192	229	256	250	216	262
Private Boat	17,003	14,771	12,325	12,231	13,759	13,029	12,393	11,756	14,728	11,703
Shore	31,818	30,883	27,193	24,914	30,016	29,138	26,046	28,398	29,043	23,965
Total Trips	48,952	45,795	39,678	37,306	43,968	42,395	38,695	40,404	43,987	35,930

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bluefish	H	6,046	5,575	2,319	2,037	3,262	2,081	1,492	1,591	2,052	2,366
	R	13,455	8,484	8,079	10,002	6,293	5,361	4,751	1,716	3,161	3,920
Dolphinfish[4]	H	485	771	949	806	1,179	1,505	799	1,285	1,170	639
	R	234	869	220	440	694	815	127	626	456	644
Florida pompano	H	1,712	507	1,602	630	575	486	380	612	557	1,886
	R	1,093	2,676	2,666	1,261	1,780	984	1,190	827	1,033	1,737
Gray snapper	H	447	404	464	2,102	2,556	1,819	3,778	3,355	2,513	2,286
	R	1,732	2,017	6,419	7,167	8,095	6,469	11,947	10,260	8,575	10,086
King mackerel	H	391	252	181	179	208	219	409	489	513	531
	R	132	89	83	62	146	122	67	171	152	110
Kingfish[5]	H	8,187	10,137	9,676	6,043	6,745	3,507	4,762	2,079	5,920	3,992
	R	9,425	8,447	10,159	6,505	7,265	9,140	5,872	1,978	7,340	4,916
Red drum	H	721	788	878	1,008	1,028	982	1,310	979	1,070	599
	R	6,759	4,192	2,615	5,197	5,075	4,132	4,734	4,727	5,375	3,689
Sheepshead	H	1,893	1,420	1,015	1,076	2,248	1,129	1,942	1,240	1,740	1,133
	R	1,879	1,704	2,315	1,467	2,767	2,520	2,272	1,114	2,341	1,453
Spanish mackerel	H	2,525	1,304	777	2,666	1,349	230	1,619	651	957	623
	R	1,353	522	254	1,892	920	219	1,137	454	1,585	653
Spotted seatrout	H	1,187	931	1,683	1,122	1,111	504	963	978	929	620
	R	9,718	7,839	9,611	5,723	7,280	6,131	4,784	5,846	5,306	4,099

[1] NA = not available.
[2] Non-coastal data are not available because all of the state's residents are considered coastal county residents.
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] Dolphinfish include dolphin and dolphinfish.
[5] Drum (kingfish) include kingfish genus and Gulf kingfish.

2018 Florida State Economy (% of national total)[1]

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[2]
2,388,050 (9%)	566,894 (7.2%)	8,669,611 (6.6%)	404 (5.7%)	574 (5.3%)	1,058	0.84

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)[1]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	280	294	307	300	315	300	316	280	287
	Receipts	14,635	14,618	17,557	17,214	22,329	21,841	20,834	19,651	21,888
Seafood sales, retail	Firms	361	362	383	338	346	355	320	316	349
	Receipts	27,964	29,037	30,765	25,332	26,433	29,033	24,296	27,937	30,559

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	27	24	27	25	27	27	23	23	22
	Employees	1,269	1,095	1,608	1,374	1,419	1,429	1,535	1,942	1,591
	Payroll	45,772	42,612	51,735	50,003	50,556	58,246	63,039	79,173	69,416
Seafood sales, wholesale	Establishments	229	250	226	234	233	242	239	230	232
	Employees	1,747	1,913	1,957	1,878	1,974	2,055	1,849	2,098	2,128
	Payroll	70,889	77,115	75,945	79,266	83,964	90,247	83,818	89,907	101,920
Seafood sales, retail	Establishments	145	145	151	165	166	181	191	176	186
	Employees	865	849	945	909	1,037	1,137	1,133	1,140	1,164
	Payroll	20,783	20,158	21,577	23,476	25,844	29,066	26,981	29,146	30,086

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	248	246	258	259	263	278	281	269	284
	Employees	7,363	7,909	8,621	8,813	9,608	10,913	11,170	11,114	10,767
	Payroll	302,909	325,942	374,831	390,853	448,514	488,050	512,454	516,473	533,913
Deep Sea Freight Transportation	Establishments	61	65	75	69	77	76	65	58	64
	Employees	2,279	2,374	3,345	2,485	2,015	2,154	1,639	2,189	2,362
	Payroll	159,025	177,386	231,887	140,564	131,069	137,786	113,897	193,568	211,165
Deep Sea Passenger Transportation	Establishments	29	29	39	31	28	32	33	38	39
	Employees	ds	ds	ds	ds	ds	10,510	10,161	9,882	10,714
	Payroll	ds	ds	ds	ds	ds	967,938	864,475	970,607	1,013,720
Coastal and Great Lakes Freight Transportation	Establishments	50	54	60	47	62	57	62	64	67
	Employees	709	753	1,381	1,050	1,743	1,815	1,966	2,245	2,176
	Payroll	50,217	53,341	100,402	82,078	175,366	173,004	199,592	242,810	243,498
Port and Harbor Operations	Establishments	34	32	66	61	56	55	54	50	50
	Employees	470	377	2,082	555	588	987	1,006	1,560	1,867
	Payroll	20,525	16,879	72,554	25,439	20,647	32,032	32,969	39,956	44,789
Marine Cargo Handling	Establishments	55	64	43	58	61	69	63	72	66
	Employees	7,547	7,484	4,598	6,258	6,992	7,834	7,048	6,269	6,733
	Payroll	191,560	195,458	86,461	188,997	179,024	208,186	191,828	210,284	228,818
Navigational Services to Shipping	Establishments	145	150	151	180	190	196	194	226	223
	Employees	980	1,047	853	1,390	878	861	922	1,074	1,017
	Payroll	76,853	75,561	68,366	130,893	74,185	72,483	73,708	81,050	79,333
Marinas	Establishments	430	411	432	444	464	466	458	450	450
	Employees	4,439	4,657	4,918	5,076	5,421	5,472	5,405	5,481	5,738
	Payroll	133,017	142,997	148,573	145,265	168,185	171,354	176,315	184,529	202,187

[1] All data presented on this page are for the entire state of Florida, not just East Florida.
[2] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[3] ds = Data are suppressed.

Tables | Georgia

2019 Economic Impacts of the Georgia Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	19,883	3,278,306	725,453	1,194,897	2,681	146,413	57,471	78,255
Commercial Harvesters	943	41,900	14,423	20,681	943	41,900	14,423	20,681
Seafood Processors & Dealers	1,689	156,867	60,455	79,801	289	26,862	10,352	13,665
Importers	7,435	2,432,467	389,849	741,523	0	0	0	0
Seafood Wholesalers & Distributors	1,579	228,993	78,973	110,980	56	8,131	2,804	3,941
Retail	8,238	418,078	181,753	241,912	1,393	69,519	29,891	39,968

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	13,472	16,514	16,741	12,733	17,330	17,860	13,951	17,032	17,767	24,271
Finfish	35	42	66	90	80	50	56	67	89	97
Shellfish and Other	13,437	16,472	16,675	12,642	17,250	17,810	13,895	16,966	17,678	24,174
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	2,658	3,345	4,267	3,975	3,774	4,346	4,044	5,062	6,012	5,965
Clams	572	831	834	NA	NA	2,284	2,402	2,262	2,247	1,845
Eastern oyster	NA	131	143	127	150	204	148	178	126	136
Kingfishes	9	13	5	3	6	5	NA	3	19	21
Quahog clams	572	831	834	NA	NA	2,284	2,402	2,262	2,247	1,845
Shad	NA	NA	45	71	48	27	8	51	43	48
Shrimp	9,830	11,337	11,051	5,789	10,474	9,886	6,767	8,615	9,009	13,608

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	7,189	13,031	11,032	18,085	18,836	13,913	7,653	9,691	8,393	10,315
Finfish	27	32	58	76	70	36	21	57	59	71
Shellfish and Other	7,162	12,999	10,973	18,008	18,766	13,877	7,632	9,635	8,334	10,243
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	2,329	3,427	4,265	3,215	2,669	2,940	3,323	3,843	4,523	4,247
Clams	98	147	144	NA	NA	371	348	354	338	210
Eastern oyster	NA	26	25	26	26	33	24	29	20	17
Kingfishes	8	10	4	3	4	3	NA	2	12	13
Quahog clams	98	147	144	NA	NA	371	348	354	338	210
Shad	NA	NA	43	62	53	23	6	46	33	42
Shrimp	4,519	4,375	3,977	1,918	2,780	3,735	2,422	2,878	2,921	4,642

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Blue crab	1.14	0.98	1.00	1.24	1.41	1.48	1.22	1.32	1.33	1.40
Clams	5.80	5.65	5.78	NA	NA	6.15	6.91	6.39	6.65	8.80
Eastern oyster	NA	5.09	5.73	4.85	5.71	6.26	6.17	6.19	6.46	7.81
Kingfishes	1.10	1.27	1.28	1.30	1.67	1.46	1.40	1.14	1.59	1.62
Quahog clams	5.80	5.65	5.78	NA	NA	6.15	6.91	6.39	6.65	8.80
Shad	NA	NA	1.06	1.13	0.92	1.13	1.32	1.13	1.32	1.14
Shrimp	2.18	2.59	2.78	3.02	3.77	2.65	2.79	2.99	3.08	2.93

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of Georgia Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	84	8,440	2,847	4,985
	Private Boat	713	54,501	17,440	35,918
	Shore	1,620	143,730	47,474	88,719
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		2,417	206,670	67,761	129,622

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	4,932
Private Boat	56,302
Shore	105,077
Total	166,311

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	166,311

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	145	146	134	99	125	81	110	110	91	NA
Non-Coastal	136	131	96	72	115	80	89	73	81	NA
Out-of-State	61	78	74	53	70	70	49	57	74	NA
Total Anglers	342	355	303	225	310	231	248	241	247	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	7	16	20	21	31	34	26	28	28	27
Private Boat	1,164	1,236	1,184	1,228	1,262	1,360	1,375	1,569	1,604	1,455
Shore	1,536	1,650	1,786	2,071	2,444	2,715	2,480	3,028	2,960	2,539
Total Trips	2,707	2,902	2,990	3,320	3,737	4,109	3,880	4,624	4,593	4,021

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	121	130	105	265	290	790	402	371	241	332
	R	652	749	781	1,362	2,058	1,321	1,179	1,060	1,404	1,893
Black drum	H	138	26	43	65	48	48	96	64	129	158
	R	73	20	53	35	22	56	54	85	189	180
Black sea bass	H	38	98	53	234	167	123	19	26	79	45
	R	513	526	425	826	1,925	1,087	314	681	849	1,181
Bluefish	H	27	10	21	17	70	49	12	9	91	26
	R	249	124	148	42	261	427	96	30	295	247
Red drum	H	443	201	96	237	212	201	290	468	607	272
	R	926	370	220	505	751	961	601	1,177	1,046	1,207
Sharks[3]	H	8	11	14	26	< 1	8	19	4	5	5
	R	564	759	1,015	907	1,059	902	1,085	569	681	606
Sheepshead	H	240	282	141	129	56	121	187	159	403	152
	R	91	102	58	114	62	128	69	75	237	212
Southern flounder	H	81	55	43	52	58	130	84	101	117	97
	R	6	44	9	22	22	127	34	80	14	42
Southern kingfish	H	1,772	1,820	1,346	1,732	2,199	3,437	1,505	1,825	3,383	2,507
	R	1,522	1,689	1,778	1,206	984	1,490	1,742	1,283	2,234	1,559
Spotted seatrout	H	1,135	762	1,207	937	724	741	1,290	1,060	1,168	1,008
	R	1,676	1,348	2,197	1,321	1,688	1,764	2,113	2,437	2,113	2,673

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] Sharks include unidentified (sharks), shark species, unidentified sharks, requiem shark family, requiem shark, Atlantic sharpnose shark, requiem shark genus, and blacktip shark.

2018 Georgia State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
955,621 (3.6%)	235,847 (3%)	3,975,657 (3%)	204 (2.9%)	315 (2.9%)	602	0.04

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	52	61	71	60	62	87	100	96	108
	Receipts	5,458	5,540	4,974	4,378	5,471	6,265	7,582	9,137	10,309
Seafood sales, retail	Firms	96	89	97	77	103	84	75	72	64
	Receipts	6,474	8,646	8,233	6,932	9,338	8,379	8,298	9,462	6,533

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	6	5	6	5	7	6	7	5	6
	Employees	1,056	1,022	854	945	895	854	917	641	618
	Payroll	37,343	39,433	32,928	35,987	37,122	37,368	38,634	31,721	24,905
Seafood sales, wholesale	Establishments	36	28	18	28	24	23	35	24	21
	Employees	514	562	468	469	792	701	731	198	183
	Payroll	20,075	20,660	15,459	17,326	24,726	26,254	28,745	6,327	6,177
Seafood sales, retail	Establishments	48	51	54	60	62	70	70	70	78
	Employees	176	176	214	210	229	248	283	269	306
	Payroll	2,502	2,566	3,425	3,390	3,745	4,539	4,966	4,863	5,923

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	12	15	14	15	16	17	15	15	17
	Employees	ds	ds	ds	ds	ds	3,150	2,272	2,384	2,804
	Payroll	ds	ds	ds	ds	ds	110,951	81,978	86,762	120,915
Deep Sea Freight Transportation	Establishments	14	12	12	7	9	9	9	11	10
	Employees	ds	51	236	28	63	64	70	39	42
	Payroll	2,465	4,833	11,238	2,311	3,856	4,421	5,255	2,904	3,463
Deep Sea Passenger Transportation	Establishments	NA	1	1	1	1	2	1	NA	NA
	Employees	NA	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	NA	ds	ds	ds	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	4	4	3	4	7	8	8	7	5
	Employees	ds	ds	ds	ds	ds	66	84	71	44
	Payroll	ds	ds	ds	ds	ds	4,356	5,074	4,661	3,822
Port and Harbor Operations	Establishments	4	2	13	7	4	4	5	4	5
	Employees	ds	ds	ds	ds	ds	68	47	30	73
	Payroll	ds	ds	ds	ds	ds	2,961	3,230	1,200	3,020
Marine Cargo Handling	Establishments	17	20	10	19	19	18	17	17	18
	Employees	2,971	4,655	ds	2,986	3,561	4,956	3,966	4,022	4,778
	Payroll	84,675	108,674	ds	120,985	124,394	117,785	98,105	105,327	125,992
Navigational Services to Shipping	Establishments	8	8	10	8	7	9	8	10	10
	Employees	ds	ds	ds	ds	ds	203	149	142	151
	Payroll	11,237	ds	ds	ds	ds	12,202	9,904	10,117	12,053
Marinas	Establishments	62	63	63	59	65	67	63	66	68
	Employees	631	580	636	644	586	639	648	747	769
	Payroll	17,428	16,986	17,921	17,768	18,604	20,210	22,546	25,197	26,155

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

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2019 Economic Impacts of the North Carolina Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	8,784	947,383	255,891	387,119	5,212	301,886	123,774	164,399
Commercial Harvesters	2,221	148,538	59,242	80,926	2,221	148,538	59,242	80,926
Seafood Processors & Dealers	604	47,760	18,569	23,996	423	33,440	13,002	16,801
Importers	1,618	529,280	84,827	161,348	0	0	0	0
Seafood Wholesalers & Distributors	424	54,190	19,005	25,085	125	15,941	5,591	7,379
Retail	3,917	167,615	74,247	95,765	2,444	103,967	45,939	59,293

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	79,824	71,160	72,978	79,127	93,895	105,203	97,326	97,126	78,362	87,463
Finfish	22,424	22,331	23,565	22,731	23,645	20,300	21,604	24,182	21,342	22,774
Shellfish and Other	57,399	48,829	49,413	56,397	70,250	84,903	75,721	72,944	57,020	64,688
Key Species	-	-	-	-	-	-	-	-	-	-
Atlantic croaker	3,409	3,160	2,132	1,727	1,865	1,651	2,290	1,135	1,635	1,569
Black sea bass	947	627	688	869	1,408	1,354	1,398	1,859	1,517	1,158
Blue crab	26,537	21,295	22,779	30,001	34,050	33,717	24,303	22,238	19,669	24,673
Clams	2,574	1,862	2,239	2,309	2,912	5,101	2,696	2,151	1,603	1,102
Flounders	10,907	8,893	7,419	7,066	13,058	12,845	12,057	11,967	10,719	10,374
Groupers	1,729	1,462	1,421	1,247	1,263	1,108	1,126	1,012	1,112	1,469
King mackerel	645	1,062	831	878	1,204	786	902	1,265	1,147	1,570
Shrimp	10,689	10,888	13,293	12,945	14,146	16,804	29,751	29,619	20,047	21,933
Snappers	956	1,004	900	917	865	797	955	998	1,172	1,568
Tunas	1,490	2,437	4,400	3,208	3,721	3,193	3,337	5,330	4,550	4,001

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	72,001	67,501	56,693	50,198	61,122	65,364	60,729	62,632	54,852	59,015
Finfish	27,453	25,520	19,929	19,209	23,879	18,518	16,679	16,118	14,766	15,793
Shellfish and Other	44,548	41,981	36,764	30,989	37,243	46,846	44,050	46,514	40,086	43,222
Key Species	-	-	-	-	-	-	-	-	-	-
Atlantic croaker	7,312	5,054	3,107	1,928	2,630	1,819	2,164	1,008	1,644	1,278
Black sea bass	401	272	256	330	527	468	439	631	497	385
Blue crab	30,683	30,035	26,787	22,203	26,231	32,124	25,645	19,273	17,014	22,989
Clams	355	295	396	347	431	414	339	289	211	123
Flounders	5,001	4,102	2,736	2,728	4,584	4,080	3,021	2,957	2,558	2,825
Groupers	561	408	382	311	299	259	261	223	239	302
King mackerel	329	408	297	345	550	391	437	629	507	698
Shrimp	5,955	5,140	6,141	4,859	4,691	9,077	13,832	13,896	9,730	9,547
Snappers	320	326	279	276	251	231	279	281	323	423
Tunas	703	1,056	1,482	1,283	1,460	1,085	1,239	1,802	1,300	1,266

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	0.47	0.63	0.69	0.90	0.71	0.91	1.06	1.13	0.99	1.23
Black sea bass	2.36	2.30	2.69	2.64	2.67	2.89	3.18	2.94	3.05	3.00
Blue crab	0.86	0.71	0.85	1.35	1.30	1.05	0.95	1.15	1.16	1.07
Clams	7.25	6.30	5.65	6.65	6.76	12.31	7.96	7.45	7.60	8.95
Flounders	2.18	2.17	2.71	2.59	2.85	3.15	3.99	4.05	4.19	3.67
Groupers	3.08	3.58	3.72	4.01	4.22	4.28	4.31	4.53	4.65	4.87
King mackerel	1.96	2.60	2.79	2.54	2.19	2.01	2.07	2.01	2.26	2.25
Shrimp	1.79	2.12	2.16	2.66	3.02	1.85	2.15	2.13	2.06	2.30
Snappers	2.99	3.08	3.22	3.32	3.44	3.45	3.42	3.55	3.63	3.71
Tunas	2.12	2.31	2.97	2.50	2.55	2.94	2.69	2.96	3.50	3.16

2019 Economic Impacts of North Carolina Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	1,203	116,975	39,617	67,338
	Private Boat	2,295	238,178	83,103	144,058
	Shore	12,922	1,311,932	461,757	797,786
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		16,421	1,667,085	584,477	1,009,182

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	70,861
Private Boat	224,456
Shore	929,802
Total	1,225,120

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	1,225,120

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	544	490	614	564	549	479	541	481	460	NA
Non-Coastal	296	254	283	240	301	239	281	235	268	NA
Out-of-State	1,073	755	764	601	805	830	1,066	795	809	NA
Total Anglers	1,914	1,499	1,661	1,405	1,656	1,548	1,889	1,512	1,537	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	139	129	159	161	130	148	181	195	148	161
Private Boat	4,983	5,213	5,055	4,848	4,896	4,993	4,860	5,045	4,279	4,647
Shore	15,052	14,127	13,342	13,127	13,934	15,216	16,158	17,258	12,197	12,733
Total Trips	20,173	19,469	18,555	18,136	18,960	20,357	21,199	22,497	16,624	17,540

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker and spot	H	5,111	7,354	3,526	7,422	10,279	4,010	3,038	3,085	2,542	3,474
	R	8,187	11,999	6,875	12,243	14,391	12,617	9,086	6,534	6,374	5,990
Black sea bass	H	184	180	134	90	333	320	195	317	86	152
	R	2,224	2,570	4,650	3,041	5,023	5,036	5,536	6,191	2,224	2,803
Bluefish	H	3,692	3,614	2,684	4,288	4,419	4,123	4,489	3,173	3,305	2,753
	R	7,420	7,150	3,268	7,051	5,863	6,356	6,803	8,256	7,912	7,162
Dolphinfish[4]	H	615	639	427	323	403	740	481	280	495	458
	R	6	16	5	5	7	74	3	3	28	35
King mackerel	H	58	32	56	48	72	96	108	110	103	185
	R	10	< 1	6	9	35	17	44	95	76	115
Southern flounder and lefteye flounder species[5]	H	401	291	283	229	443	227	94	227	102	111
	R	4,435	3,226	4,025	4,012	3,290	2,781	2,877	2,990	1,497	2,055
Spanish mackerel	H	927	855	996	995	1,029	835	918	996	1,013	1,479
	R	702	480	592	686	814	515	547	688	1,019	1,340
Spotted seatrout	H	631	724	1,603	1,108	725	249	979	1,218	449	1,937
	R	7,658	7,421	4,916	4,279	3,949	4,824	6,475	5,148	15,238	7,161
Striped bass	H	109	249	24	58	21	41	20	73	161	46
	R	332	808	501	361	374	343	1,089	3,691	1,867	809
Yellowfin tuna[6]	H	42	33	70	53	44	38	80	119	61	45
	R	< 1	< 1	9	1	7	2	29	18	4	2

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[4] Dolphinfish include dolphin, bluefin tuna, and dolphinfish.
[5] South flounder and lefteye flounder species include lefteye flounder genus and summer flounder.
[6] Yellowfin tuna include yellowfin tuna and swordfish.

2018 North Carolina State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
787,883 (3%)	234,948 (3%)	3,848,565 (2.9%)	184 (2.6%)	301 (2.8%)	570	0.05

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	40	50	46	58	63	72	69	59	52
	Receipts	1,652	2,705	1,630	4,605	4,599	4,715	4,204	3,535	2,986
Seafood sales, retail	Firms	126	144	136	127	137	134	122	149	134
	Receipts	9,057	10,386	11,990	12,175	13,430	12,705	12,215	13,921	12,965

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	16	14	12	13	14	16	14	13	14
	Employees	171	ds	ds	135	128	128	128	240	313
	Payroll	4,749	4,830	5,084	4,563	4,720	6,582	6,366	10,124	12,700
Seafood sales, wholesale	Establishments	66	64	59	59	56	59	57	51	50
	Employees	590	603	793	849	966	1,187	1,267	739	742
	Payroll	18,348	19,344	23,949	26,687	30,292	38,462	43,297	27,127	27,873
Seafood sales, retail	Establishments	82	84	88	86	93	91	93	93	93
	Employees	247	244	289	254	278	255	282	316	317
	Payroll	5,017	5,250	5,860	5,872	6,263	6,681	7,207	8,223	8,479

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	60	57	60	52	52	62	63	66	65
	Employees	1,501	1,515	1,760	1,059	1,153	1,422	1,571	1,807	2,028
	Payroll	64,807	66,929	74,843	49,462	50,102	65,388	73,550	89,950	96,174
Deep Sea Freight Transportation	Establishments	10	8	7	8	8	6	5	3	3
	Employees	ds	ds	25	ds	ds	ds	ds	0	87
	Payroll	ds	ds	1,579	ds	ds	ds	ds	0	6,229
Deep Sea Passenger Transportation	Establishments	NA	1	NA	NA	NA	NA	2	NA	NA
	Employees	NA	ds	NA	NA	NA	NA	ds	NA	NA
	Payroll	NA	ds	NA	NA	NA	NA	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	4	5	6	5	5	6	5	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Port and Harbor Operations	Establishments	4	3	9	5	2	2	2	4	3
	Employees	ds	ds	ds	46	ds	ds	ds	126	100
	Payroll	ds	ds	ds	1,579	ds	ds	ds	4,437	2,037
Marine Cargo Handling	Establishments	11	14	6	9	9	9	9	8	9
	Employees	600	ds	ds	ds	ds	797	594	627	618
	Payroll	20,755	ds	ds	ds	ds	14,767	14,204	26,470	28,482
Navigational Services to Shipping	Establishments	13	11	8	10	13	13	12	17	14
	Employees	94	86	90	77	78	78	71	133	120
	Payroll	3,968	4,041	3,203	3,583	3,844	4,350	4,369	5,941	5,574
Marinas	Establishments	102	104	102	99	100	105	109	92	99
	Employees	536	524	531	501	541	579	624	525	679
	Payroll	16,238	16,187	15,975	16,369	16,774	18,672	21,964	17,773	23,916

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

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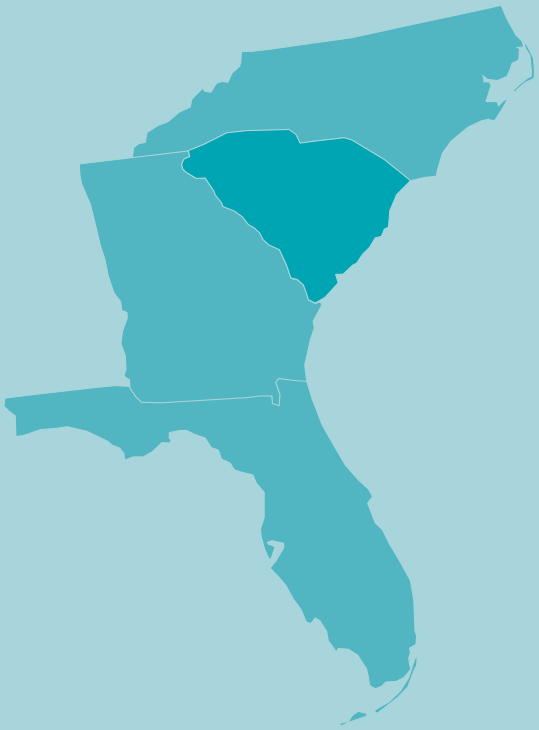


2019 Economic Impacts of the South Carolina Seafood Industry (thousands of dollars)

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	1,739	168,148	51,035	74,261	1,341	84,830	34,681	46,184
Commercial Harvesters	504	41,616	16,371	22,531	504	41,616	16,371	22,531
Seafood Processors & Dealers	117	10,546	4,125	5,305	102	9,171	3,587	4,613
Importers	217	70,968	11,374	21,634	0	0	0	0
Seafood Wholesalers & Distributors	81	9,697	3,407	4,475	36	4,302	1,511	1,985
Retail	821	35,320	15,758	20,316	700	29,742	13,211	17,055

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	21,982	24,675	25,592	24,625	24,193	24,578	25,065	25,741	22,093	25,113
Finfish	6,775	8,864	7,023	8,325	6,770	7,481	7,044	8,453	6,161	6,645
Shellfish and Other	15,207	15,811	18,570	16,299	17,423	17,097	18,021	17,288	15,932	18,468
Key Species	-	-	-	-	-	-	-	-	-	-
Black sea bass	213	181	303	471	341	246	156	251	187	292
Blue crab	3,592	5,084	5,800	6,368	5,822	4,831	5,538	5,569	5,143	5,158
Clams	980	823	583	699	585	570	726	434	580	245
Groupers	1,524	1,709	1,119	1,394	1,412	1,199	754	1,042	1,094	987
Oysters	1,906	1,975	2,153	2,402	2,243	2,258	2,321	2,612	2,967	3,725
Sharks	75	99	108	55	87	18	33	42	38	34
Shrimp	8,166	7,004	8,689	5,935	8,035	8,525	8,129	8,313	6,324	8,164
Snappers	1,079	1,085	1,334	1,075	948	1,067	1,090	1,116	1,156	1,236
Swordfish	2,289	3,628	2,105	2,370	1,298	1,437	1,785	1,815	1,614	1,724
Tilefish	117	8	148	404	538	537	NA	780	326	341

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	10,746	12,565	12,770	10,919	10,381	10,971	11,007	10,774	8,979	9,838
Finfish	2,674	3,160	2,583	2,586	2,360	3,095	2,660	3,047	1,898	2,199
Shellfish and Other	8,072	9,405	10,187	8,333	8,021	7,876	8,347	7,727	7,081	7,639
Key Species	-	-	-	-	-	-	-	-	-	-
Black sea bass	99	100	118	178	131	81	49	81	62	87
Blue crab	3,274	5,439	5,900	5,134	3,833	3,746	4,382	4,390	3,890	3,971
Clams	185	150	102	118	90	94	85	59	60	29
Groupers	377	386	252	298	284	229	133	185	190	168
Oysters	340	337	361	376	339	331	314	327	324	374
Sharks	86	108	103	44	56	13	21	29	23	20
Shrimp	3,949	2,914	3,433	2,039	2,615	3,406	3,136	2,755	2,159	2,667
Snappers	365	358	425	321	270	305	287	305	307	318
Swordfish	725	912	613	625	366	428	528	526	529	661
Tilefish	46	4	51	160	194	171	NA	191	83	85

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Black sea bass	2.16	1.82	2.57	2.64	2.60	3.03	3.20	3.11	3.00	3.37
Blue crab	1.10	0.93	0.98	1.24	1.52	1.29	1.26	1.27	1.32	1.30
Clams	5.29	5.48	5.71	5.94	6.49	6.08	8.53	7.39	9.69	8.57
Groupers	4.04	4.42	4.45	4.68	4.97	5.24	5.67	5.63	5.75	5.87
Oysters	5.61	5.85	5.96	6.39	6.61	6.81	7.39	7.99	9.15	9.95
Sharks	0.87	0.91	1.04	1.26	1.55	1.34	1.59	1.44	1.61	1.68
Shrimp	2.07	2.40	2.53	2.91	3.07	2.50	2.59	3.02	2.93	3.06
Snappers	2.95	3.03	3.14	3.34	3.52	3.50	3.79	3.66	3.77	3.88
Swordfish	3.16	3.98	3.43	3.79	3.54	3.36	3.38	3.45	3.05	2.61
Tilefish	2.54	1.84	2.87	2.53	2.76	3.15	NA	4.08	3.92	4.02

[1] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of South Carolina Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	602	54,449	18,082	31,330
	Private Boat	1,335	104,983	32,183	68,373
	Shore	7,171	664,115	222,747	420,418
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		9,109	823,546	273,012	520,121

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	35,060
Private Boat	112,539
Shore	509,583
Total	657,182

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	657,182

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	210	148	207	166	181	192	163	184	176	NA
Non-Coastal	104	66	123	84	114	157	102	93	116	NA
Out-of-State	494	264	406	602	569	684	510	437	569	NA
Total Anglers	809	478	736	852	864	1,033	775	714	861	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	72	75	24	48	95	97	78	88	131	129
Private Boat	2,265	2,170	2,223	2,187	2,276	2,371	2,624	3,136	2,279	2,949
Shore	5,691	6,262	5,865	7,515	6,375	6,494	6,634	6,165	7,487	8,760
Total Trips	8,028	8,507	8,111	9,751	8,746	8,962	9,335	9,389	9,897	11,839

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker and spot[4]	H	2,610	4,124	5,135	5,041	1,859	8,094	5,243	2,663	1,232	908
	R	1,199	2,477	1,744	9,645	6,651	6,055	8,655	5,125	5,884	4,042
Black sea bass	H	531	104	127	53	249	88	56	197	63	76
	R	1,238	2,366	1,212	1,022	4,286	2,079	2,282	3,266	1,362	2,247
Bluefish	H	1,115	1,439	924	2,106	820	921	1,123	752	765	877
	R	1,160	2,911	615	1,914	1,470	2,597	1,583	3,105	1,530	5,571
Red drum	H	437	373	296	283	393	258	241	456	263	333
	R	2,269	1,618	1,083	1,865	1,875	1,433	1,267	2,094	1,494	2,912
Sharks[5]	H	11	26	22	57	33	13	19	11	6	13
	R	2,196	1,714	2,489	4,477	2,571	2,921	1,694	1,429	1,867	1,797
Sheepshead	H	187	458	128	66	169	141	136	204	118	164
	R	121	203	163	315	421	368	391	436	421	533
Southern flounder	H	309	323	258	191	140	184	187	221	114	114
	R	25	63	120	0	0	0	< 1	0	< 1	0
Southern kingfish	H	1,093	1,731	2,774	3,639	2,207	1,368	1,450	1,783	923	896
	R	0	458	712	0	22	11	45	3	4	2
Spanish mackerel	H	171	472	258	101	194	390	306	46	289	1,047
	R	139	389	313	130	137	322	334	300	322	1,589
Spotted seatrout	H	407	193	622	441	260	311	311	648	257	814
	R	1,167	744	1,762	2,191	1,407	1,148	1,791	1,950	1,063	2,477

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[4] Atlantic croaker and spot include spot and Atlantic croaker.
[5] Sharks include unidentified (sharks), shark species, requiem shark family, requiem shark, Atlantic sharpnose shark, requiem shark genus, and blacktip shark.

2018 South Carolina State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
363,971 (1.4%)	110,325 (1.4%)	1,903,609 (1.5%)	79.7 (1.1%)	130 (1.2%)	234	0.11

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	23	32	35	30	28	26	31	30	37
	Receipts	1,386	1,326	1,868	1,657	2,690	2,438	3,782	4,136	4,909
Seafood sales, retail	Firms	78	87	67	67	73	69	57	72	67
	Receipts	3,978	5,535	4,818	3,765	4,845	6,007	5,753	5,869	5,115

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	2	1	NA	NA	4	2	1	NA	NA
	Employees	ds	ds	NA	NA	ds	ds	ds	NA	NA
	Payroll	ds	ds	NA	NA	ds	ds	ds	NA	NA
Seafood sales, wholesale	Establishments	16	12	15	16	12	16	15	14	15
	Employees	120	101	125	134	148	146	151	157	135
	Payroll	3,868	3,760	4,506	4,849	5,329	5,327	5,193	4,840	4,732
Seafood sales, retail	Establishments	56	61	60	56	56	54	58	48	52
	Employees	260	245	228	222	224	185	200	163	185
	Payroll	4,580	4,231	3,670	3,713	3,633	3,883	4,006	3,186	3,935

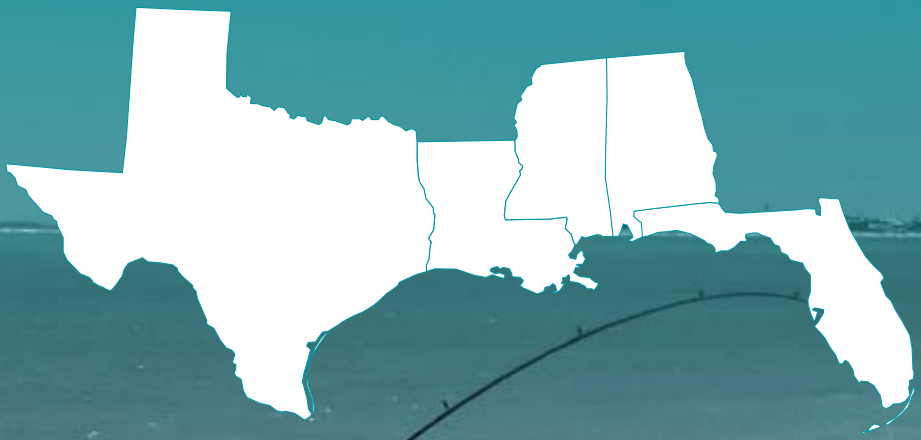
Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	39	41	39	37	37	34	34	32	32
	Employees	1,922	1,943	1,980	2,262	2,225	2,690	2,789	3,031	3,307
	Payroll	74,945	85,568	90,942	96,081	98,324	115,262	125,487	141,999	158,443
Deep Sea Freight Transportation	Establishments	7	6	6	4	1	1	1	NA	NA
	Employees	20	ds	ds	21	ds	ds	ds	NA	NA
	Payroll	758	722	ds	633	ds	ds	ds	NA	NA
Deep Sea Passenger Transportation	Establishments	2	2	1	NA	NA	NA	1	NA	NA
	Employees	ds	ds	ds	NA	NA	NA	ds	NA	NA
	Payroll	ds	ds	ds	NA	NA	NA	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	4	4	5	5	5	4	5	7	6
	Employees	ds	ds	40	ds	ds	ds	33	44	40
	Payroll	ds	ds	2,625	ds	ds	ds	1,899	2,777	2,036
Port and Harbor Operations	Establishments	2	5	7	2	3	4	4	3	3
	Employees	ds	ds	676	ds	ds	ds	ds	0	34
	Payroll	ds	ds	29,332	ds	ds	ds	ds	0	2,303
Marine Cargo Handling	Establishments	12	14	10	13	14	15	14	10	9
	Employees	1,731	1,717	715	ds	1,902	2,467	2,117	1,614	1,814
	Payroll	39,625	49,172	30,381	ds	66,803	59,595	75,187	79,262	84,486
Navigational Services to Shipping	Establishments	7	8	10	8	9	9	9	10	10
	Employees	222	217	247	221	219	236	255	320	334
	Payroll	12,591	11,922	16,625	13,820	14,513	16,311	18,135	21,257	22,025
Marinas	Establishments	73	75	70	77	70	70	74	67	66
	Employees	537	543	595	650	661	633	717	684	715
	Payroll	13,786	15,805	15,408	16,147	17,212	16,996	19,201	18,948	19,885

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

Gulf of Mexico Region

- Alabama
- West Florida
- Louisiana
- Mississippi
- Texas



A boy surf fishing in Matlacha, Florida.
Photo: NOAA Fisheries/Kristy Wallmo

MANAGEMENT CONTEXT

The Gulf of Mexico Region includes Alabama, Louisiana, Mississippi, Texas and West Florida. Federal fisheries in this region are managed by the Gulf of Mexico Fishery Management Council (GMFMC) and NOAA Fisheries under seven fishery management plans (FMPs). The coastal migratory pelagic resources and spiny lobster fisheries are managed jointly with the South Atlantic Fishery Management Council (SAFMC).

FMPs in the Gulf of Mexico Region

- Aquaculture
- Coastal migratory pelagic resources (with SAFMC)
- Corals
- Red drum
- Reef fish
- Shrimp
- Spiny lobster (with SAFMC)

Only one of the stocks/stock complexes covered in these FMPs – greater amberjack – was listed as overfished in 2019.

In 2019, two stocks/complexes, gray triggerfish (Gulf of Mexico stock) and greater amberjack (Gulf of Mexico stock), were added to the overfishing list. No other species managed by the GMFMC were determined to be subject to overfishing in 2019. In addition, gray snapper (Gulf of Mexico stock) and lane snapper (Gulf of Mexico stock) were removed from the overfishing lists in 2019.

Catch Share Programs

Two catch share programs have been implemented in the Gulf of Mexico: the Red Snapper Individual Fishing Quota (IFQ) Program and the Grouper and Tilefish IFQ Program. The landings revenues for these programs totaled more than $50 million (in inflation-adjusted 2018 dollars) in 2018. The following are descriptions of these catch share programs and their performance.

Red Snapper IFQ Program: This program was implemented in 2007 to reduce overcapacity and mitigate derby fishing conditions in the red snapper segment of the commercial reef fish fishery. The 2018 key performance indicators of the program show that relative to the baseline period (the three-year period prior to implementation), the number of active vessels decreased, while quota, landings, inflation-adjusted landings revenue, and inflation-adjusted revenue per active vessel increased.

Grouper and Tilefish IFQ Program: This program was implemented in 2010 to reduce overcapacity, increase harvesting efficiency, and eliminate the race to fish in the grouper–tilefish segment of the commercial reef fish fishery. The 2018 key performance indicators of the program show that relative to the baseline period (the three-year period prior to implementation), landings, the number of active vessels, and inflation-adjusted landings revenue decreased, while quota and inflation-adjusted revenue per active vessel increased.

COMMERCIAL FISHERIES — GULF OF MEXICO REGION

In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

Key Gulf of Mexico Region Commercial Species

- Blue crab
- Crawfish
- Groupers
- Menhaden
- Mullets
- Oysters
- Red snapper
- Shrimp
- Spiny lobster
- Tunas

Economic Impacts

The premise behind economic impact modeling is that every dollar spent in a regional economy (direct impact) is either saved or re-spent on additional goods or services. If those dollars are re-spent on other goods and services in the regional economy, this spending generates additional economic activity in the region.[1]

Four different measures are commonly used to show how commercial fisheries landings affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the

[1] Summary data is available online in the FEUS webtool. [Available at: https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool.]

gross value of all sales by regional businesses affected by an activity, such as commercial fishing. The category includes both the direct sales of fish landed and sales made between businesses and households resulting from the original sale. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the sales of seafood or purchases of inputs to commercial fishing. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in numbers of jobs. Note that these categories are not additive. The United States seafood industry is defined here as the commercial fishing sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers.[2,3]

This report provides estimates of total economic impacts for the nation and for each of the 23 coastal states. Total economic impacts for each state and the nation represent the sum of direct impacts; indirect impacts (in this case, the impact from suppliers to the seafood industry); and induced impacts (spending by employees on personal and household expenditures, where employees of both the seafood industry and its full supply chain are included). That is, the total economic impact estimates reported here measure jobs, sales, value-added, and income impacts from the seafood industry as well as the economic activity generated throughout each region's broader economy from this industry.

In 2019, the commercial fishing and seafood industry in Florida generated the largest employment impacts in the Gulf of Mexico Region with 81,647 full- and part-time jobs. Florida also generated the largest sales impacts ($19.4 billion), value-added impacts ($6.5 billion), and income impacts ($3.6 billion).

Landings Revenue

In 2019, landings revenue in the Gulf of Mexico Region totaled $816.1 million, a 35% increase from 2010 (a 16% increase in real terms after adjusting for inflation) and an 8% decrease from 2018. Landings revenue was highest in Louisiana ($317.3 million), followed by Texas ($209.3 million).

Shellfish and other landings revenue accounted for 75% of all landings revenue. In 2019, shrimp ($371 million), menhaden ($102.4 million), and oysters ($87.9 million) had the highest landings revenue in this region. Together, these top three species accounted for 69% of total landings revenue.

From 2010 to 2019, red snapper (227%, 180% in real terms), blue crab (70%, 45% in real terms), and oysters (60%, 37% in real terms) had the largest increases, while tunas (-8%, -21% in real terms), spiny lobster (-8%, -21% in real terms), and crawfish (-6%, -20% in real terms) had the largest decreases. From 2018 to 2019, red snapper (12%), groupers (7%), and crawfish (5%) had the largest increases, while tunas (-34%), spiny lobster (-31%), and oysters (-16%) had the largest decreases.

Commercial Revenue: Largest Increases

From 2010:
- Red snapper (227%, 180% in real terms)
- Blue crab (70%, 45% in real terms)
- Oysters (60%, 37% in real terms)

From 2018:
- Red snapper (12%)
- Groupers (7%)
- Crawfish (5%)

Commercial Revenue: Largest Decreases

From 2010:
- Tunas (-8%, -21% in real terms)
- Spiny lobster (-8%, -21% in real terms)
- Crawfish (-6%, -20% in real terms)

From 2018:
- Tunas (-34%)
- Spiny lobster (-31%)
- Oysters (-16%)

Landings

In 2019, Gulf of Mexico Region commercial fishermen

[2] The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates. [Available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf.]
[3] Commercial economic impacts data were not available for West Florida specifically; data for the entire state of Florida are reported here.

landed over 1.4 billion pounds of finfish and shellfish. This represents a 10% increase from 2010 and a 9% decrease from 2018. Menhaden contributed the highest landings volume in the region, accounting for 76% of total landing weight.

From 2010 to 2019, red snapper (138%), blue crab (20%), and shrimp (13%) had the largest increases, while tunas (-50%), crawfish (-36%), and spiny lobster (-27%) had the largest decreases. From 2018 to 2019, red snapper (12%) had the largest increases, while spiny lobster (-34%), tunas (-32%), and crawfish (-16%) had the largest decreases.

Commercial Landings: Largest Increases

From 2010:
- Red snapper (138%)
- Blue crab (20%)
- Shrimp (13%)

From 2018:
- Red snapper (12%)

Commercial Landings: Largest Decreases

From 2010:
- Tunas (-50%)
- Crawfish (-36%)
- Spiny lobster (-27%)

From 2018:
- Spiny lobster (-34%)
- Tunas (-32%)
- Crawfish (-16%)

Prices

In 2019, spiny lobster ($7.83 per pound) received the highest ex-vessel price in the region. Landings of menhaden ($0.1 per pound) had the lowest ex-vessel price. From 2010 to 2019, oysters (102%, 73% in real terms), tunas (82%, 56% in real terms), and groupers (66%, 42% in real terms) had the largest increases, while There were no percent decreases. had the largest decreases. From 2018 to 2019, crawfish (25%), groupers (11%), and shrimp (10%) had the largest increases, while menhaden (-5%), tunas (-3%), and blue crab (-2%) had the largest decreases.

RECREATIONAL FISHERIES — GULF OF MEXICO REGION

In this report, recreational fishing refers to fishing for leisure rather than to sell fish (commercial fishing) or for subsistence. This recreational fisheries section reports on economic impacts and expenditures, angler participation, fishing trips, and catch of key species/species groups.[4,5,6]

Key Gulf of Mexico Region Recreational Species[7]

- Atlantic croaker
- Gulf and Southern kingfish
- Red drum
- Red snapper
- Sand and silver seatrouts
- Sheepshead
- Southern flounder
- Spanish mackerel
- Spotted seatrout
- Striped mullet

Economic Impacts and Expenditures

The economic contribution of recreational fishing activities in the Gulf of Mexico Region is based on spending by recreational anglers.[8] Total annual trip expenditures are estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusting by the CPI (consumer price index) to the current year. After 2018, state level durable expenditures and durable impacts will no longer be available due to changes in the availability of angler participation data at the state level.

Four different measures are commonly used to show how angler expenditures affect the economy in a region (state or nationwide): sales, income, value-added, and employment. The term sales refers to the gross value of all sales by regional businesses affected by an activity, such as recreational fishing. The category includes both the direct sales made by the angler and sales made between businesses and households resulting from that

[4] Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.
[5] Louisiana harvest and release totals for 2014-2019 are estimated using data from a state creel survey.
[6] Data collected by the Texas Parks and Wildlife Department (TPWD) is reported in this table. The data collected by the TPWD differs from the data collected and reported in the MRIP. Data on the number of fish released are not reported by TPWD. [For more information: www.tpwd.state.tx.us.]
[7] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[8] Trip expenditure estimates were generated from the 2016/2017 National Marine Recreational Fishing Expenditure Survey (Lovell et al., 2020). Durable goods expenditures were generated from the 2019 National Marine Recreational Fishing Expenditure Survey. [For citations: Publications-Recreational Fisheries Economics Research.]

original sale by the angler. Income includes personal income (wages and salaries) and proprietors' income (income from self-employment). Value-added is the contribution made to the gross domestic product in a region. Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers. The first three measures are calculated in terms of dollars, whereas employment impacts are measured in number of jobs. Note that these categories are not additive. NOAA Fisheries uses a regional impact modeling software, called IMPLAN, to estimate these four types of impacts.

The economic contributions for trip expenditures from recreational fishing in 2019 were estimated using IMPLAN version 3, with base year data from 2017. Models for each state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2019 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the Gulf of Mexico Region were generated in West Florida (23,301 jobs), followed by Alabama (8,198 jobs) and Louisiana (5,333 jobs). The largest sales impacts were observed in West Florida ($2.5 billion), followed by Alabama ($794.2 million) and Louisiana ($590.8 million). The biggest income impacts were generated in West Florida ($849.3 million), followed by Alabama ($233.2 million) and Louisiana ($187.3 million). The greatest value-added impacts were in West Florida ($1.6 billion), followed by Alabama ($465.9 million) and Louisiana ($338.7 million).

A large portion of the approximately 3.3 billion in trip expenses came from trips in the Private Boat (41%) and Shore (39.6%) sectors.

Participation

Due to changes in data availability after 2018, angler participation data is not being reported at the state level for 2019.

Fishing Trips

In 2019, recreational fishermen took 50 million fishing trips in the Gulf of Mexico Region.[9] This number represented a 19% decrease from 2010 and a 10% decrease from 2018. The largest proportions of trips were taken in the shore mode (54%) and private boat (43%). States with the highest number of recorded trips in the Gulf of Mexico Region were West Florida (35.6 million trips) and Alabama (6.7 million trips).

Harvest and Release Trends

Of the Gulf of Mexico Region's key species and species groups, spotted seatrout (24.1 million fish), Spanish mackerel (18.2 million fish), and red drum (13.4 million fish), were most frequently caught by recreational fishermen. The text box below shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2010 to 2019, red snapper (53%) had the largest increases, while south flounder (-80%), sand and silver seatrouts (-62%), and Gulf and south kingfish (-61%) had the largest decreases. From 2018 to 2019, red snapper (10%) had the largest increases, while Gulf and south kingfish (-46%), striped mullet (-40%), and sheepshead (-35%) had the largest decreases.

Harvest and Release: Largest Increases

From 2010:
- Red snapper (53%)

From 2018:
- Red snapper (10%)

Harvest and Release: Largest Decreases

From 2010:
- Southern flounder (-80%)
- Sand and silver seatrouts (-62%)
- Gulf and south kingfish (-61%)

From 2018:
- Gulf and southern kingfish (-46%)
- Striped mullet (-40%)
- Sheepshead (-35%)

[9] Texas Trip estimates are not available for the shore mode.Shore mode in Louisiana has been included in the private mode since 2014.

MARINE ECONOMY — GULF OF MEXICO REGION

For this report, the marine economy refers to the fishing and marine-related industries in a coastal state. The state marine economy consists of two industry sectors: 1) seafood sales and processing (employer establishments and non-employer firms); and 2) transportation support and marine operations (employer establishments). These sectors include several different marine-related industries.[10]

Note that when discussing the marine economy in the Gulf of Mexico Region, all statistics include the entire state of Florida and not just West Florida.

The Commercial Fishing Location Quotient (CFLQ) measures the size of the commercial fishing sector in a state's economy relative to the size of the commercial fishing sector in the national economy.[11] The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The U.S. CFLQ is 1. If a state CFLQ is less than 1, then less commercial fishing occurs in this state than the national average. If a state CFLQ is greater than 1, then more commercial fishing occurs in this state than the national average.

Louisiana had the highest CFLQ at 4.83. Mississippi had a CFLQ value of 4.27.

In 2018, 1.4 million employer establishments operated throughout the entire Gulf of Mexico Region (including marine and non-marine related establishments). These establishments employed 23.8 million workers and had a total annual payroll of $1.2 trillion. The combined gross state product of Alabama, West Florida, Louisiana, Mississippi, and Texas was approximately $3.5 trillion in 2018.

Seafood Sales and Processing

Seafood Product Preparation and Packaging: In 2018, the Gulf of Mexico Region had 585 non-employer firms in the seafood product preparation and packaging sector (a 2% decrease from 2010). Annual receipts for these firms totaled $47.4 million (a 24% increase in real terms from 2010). There were 124 employer firms in the seafood product preparation and packaging sector (remains unchanged from 2010). The greatest number of establishments in this sector was in West Florida (309), followed by Texas (156) and Louisiana (144).

Retail Seafood Sales: In 2018, there were 782 non-employer firms in seafood retail sales in the Gulf of Mexico Region (an 11% decrease from 2010). Annual receipts for these firms totaled $70.1 million (a 6% decrease in real terms from 2010). There were 378 employer firms in the seafood retail sector (a 9% increase from 2010). The greatest number of establishments in this sector was in West Florida (535), followed by Louisiana (253) and Texas (229).

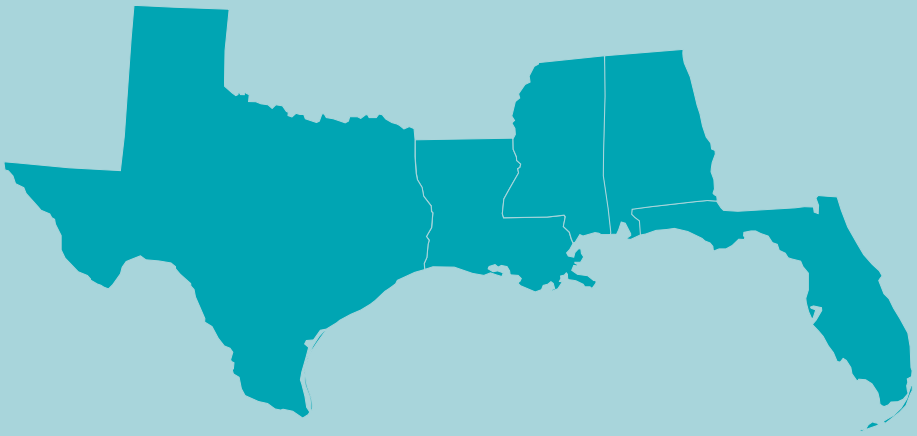
Wholesale Seafood Sales: There were 468 employer firms in the seafood wholesale sector in the Gulf of Mexico Region in 2018 (a 5% increase from 2010). The greatest number of establishments in this sector was in West Florida (232), followed by Louisiana (113) and Texas (95).

Transportation Support and Marine Operations

Data for the transportation support and marine operations sectors of the Gulf of Mexico Region's economy were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the regional economy. For example, in 2018, the ship and boat building sector in the Gulf of Mexico Region accounted for $3 billion in payroll. The deep sea passenger transportation sector in Florida alone accounted for $1 billion in payroll in 2018.

[10] Unless otherwise stated, data are from the U.S. Census Bureau. County Business Patterns data and Nonemployer Statistics available at https://www.census.gov. The Census data are only available through 2018. GDP and Compensation of Employees data was obtained from the U.S. Bureau of Economic Analysis, 'Table SAGDP1 Gross Domestic Product' and 'Table SA6N Compensation of Employees by NAICS Industry,' respectively. Percentage changes in inflation-adjusted (real) dollar terms are calculated using the annual Gross Domestic Product implicit price deflator, which was obtained from the Federal Reserve Bank of St. Louis (https://fred.stlouisfed.org/series/USAGDPDEFAISMEI).
[11] U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

Tables | Gulf of Mexico Region



2019 Economic Impacts of the Gulf of Mexico Seafood Industry (jobs, thousands of dollars)

	Landings Revenue	With Imports				Without Imports			
		#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Alabama	57,662	10,058	495,606	194,938	255,812	9,892	472,353	189,188	247,028
Florida[1]	237,631	81,647	19,373,993	3,619,588	6,476,479	9,338	964,486	254,045	389,720
Louisiana	317,319	27,686	1,708,923	628,327	855,392	26,818	1,521,523	590,421	791,666
Mississippi	58,661	7,506	399,975	157,334	203,736	7,444	389,986	154,868	199,986
Texas	209,279	39,384	5,415,475	1,322,455	2,091,356	16,556	1,152,738	426,016	593,688

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	604,362	805,149	781,200	930,359	1,057,002	853,585	888,975	872,951	890,449	816,050
Finfish	129,856	193,664	189,959	200,596	206,767	246,370	258,415	181,177	219,414	205,976
Shellfish and Other	474,506	611,485	591,241	729,762	850,235	607,215	630,560	691,774	671,036	610,075
Key Species	-	-	-	-	-	-	-	-	-	
Blue crab	41,030	48,943	52,538	62,042	79,679	74,567	65,569	69,146	76,392	69,605
Crawfish	14,014	9,887	8,291	16,457	16,144	6,852	12,373	12,105	12,550	13,169
Groupers	14,260	19,932	24,672	24,910	30,435	27,693	28,746	22,287	19,692	21,044
Menhaden	66,020	103,523	87,377	90,706	93,267	138,628	143,342	72,202	116,530	102,448
Mullets	5,222	10,395	8,753	13,552	11,715	7,654	8,560	6,668	5,879	5,229
Oysters	54,878	64,908	76,025	75,552	90,240	96,093	86,217	110,900	104,074	87,929
Red snapper	9,837	11,109	13,319	20,253	22,527	26,792	25,843	28,374	28,675	32,161
Shrimp	304,468	421,762	401,797	497,398	577,479	345,569	390,430	434,005	398,359	371,027
Spiny lobster	32,702	35,568	22,249	47,116	53,416	44,059	41,311	31,944	43,629	30,045
Tunas	2,685	5,518	10,726	7,345	5,153	4,585	5,699	5,153	3,711	2,466

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)[1]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	1,276,159	1,768,543	1,668,976	1,351,768	1,243,777	1,553,491	1,737,033	1,401,779	1,543,219	1,407,081
Finfish	1,021,593	1,442,564	1,350,463	1,041,144	920,611	1,252,979	1,434,021	1,082,782	1,226,477	1,133,853
Shellfish and Other	254,566	325,979	318,513	310,625	323,166	300,512	303,012	318,997	316,743	273,228
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	41,078	55,688	53,747	47,119	51,643	52,623	51,991	54,468	53,191	49,422
Crawfish	14,609	9,582	6,834	19,641	13,055	5,461	13,573	8,575	11,178	9,406
Groupers	5,071	7,026	8,329	7,701	8,991	7,824	7,951	5,871	4,679	4,509
Menhaden	967,025	1,374,285	1,275,789	971,306	848,599	1,188,941	1,364,034	1,016,831	1,166,097	1,074,438
Mullets	8,958	14,256	12,210	13,899	15,163	10,858	11,430	9,317	8,237	7,057
Oysters	16,302	19,092	21,200	19,526	17,513	16,633	15,272	17,705	15,329	12,956
Red snapper	3,158	3,482	3,942	5,198	5,548	6,559	6,284	6,903	6,692	7,501
Shrimp	165,813	216,852	217,589	204,215	217,012	203,613	204,478	223,240	221,546	187,321
Spiny lobster	5,278	5,295	3,770	5,645	5,039	5,451	5,016	3,622	5,821	3,835
Tunas	1,322	1,590	3,084	2,113	1,717	1,342	1,633	1,509	973	666

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Blue crab	1.00	0.88	0.98	1.32	1.54	1.42	1.26	1.27	1.44	1.41
Crawfish	0.96	1.03	1.21	0.84	1.24	1.25	0.91	1.41	1.12	1.40
Groupers	2.81	2.84	2.96	3.23	3.39	3.54	3.62	3.80	4.21	4.67
Menhaden	0.07	0.08	0.07	0.09	0.11	0.12	0.11	0.07	0.10	0.10
Mullets	0.58	0.73	0.72	0.98	0.77	0.70	0.75	0.72	0.71	0.74
Oysters	3.37	3.40	3.59	3.87	5.15	5.78	5.65	6.26	6.79	6.79
Red snapper	3.11	3.19	3.38	3.90	4.06	4.08	4.11	4.11	4.29	4.29
Shrimp	1.84	1.94	1.85	2.44	2.66	1.70	1.91	1.94	1.80	1.98
Spiny lobster	6.20	6.72	5.90	8.35	10.60	8.08	8.24	8.82	7.49	7.83
Tunas	2.03	3.47	3.48	3.48	3.00	3.42	3.49	3.41	3.81	3.70

[1] Landings revenue is for West Florida. The rest of the information in this row is for the entire state of Florida.

2019 Economic Impacts of the Gulf of Mexico Recreational Fishing Expenditures (thousands of dollars, trips)

	Trips	#Jobs	Sales	Income	Value Added
Alabama	6,677	8,198	794,233	233,153	465,903
Louisiana	2,108	5,333	590,834	187,285	338,655
Mississippi	4,227	1,399	120,974	40,061	74,119
Texas	1,313	3,996	507,678	164,258	306,931
West Florida	35,645	23,301	2,497,490	849,282	1,577,347

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	636,633
Private Boat	1,342,784
Shore	1,299,216
Total	3,278,633

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	3,278,633

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	2,480	2,737	2,803	2,973	2,674	2,437	2,445	2,316	1,572	NA
Non-Coastal	235	311	268	400	185	199	259	296	234	NA
Total Anglers	2,715	3,048	3,071	3,373	2,859	2,635	2,704	2,612	1,806	NA

Recreational Fishing Effort by Mode (thousands of angler trips)[3]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	730	907	1,121	1,054	1,065	1,214	1,274	1,252	1,431	1,684
Private Boat	31,433	31,484	33,726	31,787	25,410	23,585	24,714	25,254	23,717	21,296
Shore	29,336	30,492	32,843	36,483	26,239	25,823	28,414	32,128	30,607	26,991
Total Trips	61,499	62,884	67,690	69,324	52,715	50,622	54,403	58,634	55,755	49,970

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[4,5]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	3,819	4,765	3,096	4,646	5,994	3,323	2,212	3,402	3,875	3,125
	R	10,456	13,084	8,842	7,303	5,307	5,857	5,372	11,053	11,481	9,132
Gulf and Southern kingfish	H	4,893	2,250	3,378	4,071	1,647	2,530	4,247	3,898	3,634	1,064
	R	1,921	1,300	1,492	1,208	1,120	703	1,936	2,134	1,269	1,594
Red drum	H	7,211	7,326	5,907	7,621	1,574	1,981	1,847	1,737	1,664	1,765
	R	15,447	14,072	14,547	17,579	7,256	8,064	7,128	7,074	8,203	11,671
Red snapper	H	1,155	1,512	1,516	2,422	977	1,288	1,570	2,949	2,159	2,430
	R	4,815	5,818	4,463	5,630	4,205	3,455	6,650	9,270	6,190	6,713
Sand and silver seatrouts	H	11,400	11,141	11,061	6,414	4,654	5,776	5,792	9,223	5,468	3,744
	R	4,551	5,594	5,597	3,614	1,466	2,567	2,767	6,074	2,805	2,253
Sheepshead	H	3,966	6,109	4,834	3,259	2,455	2,430	2,041	4,201	2,318	1,559
	R	5,718	4,029	3,921	5,081	3,683	3,848	2,320	4,159	5,265	3,393
Southern flounder	H	1,842	1,878	1,509	2,339	468	368	492	300	272	366
	R	617	541	659	639	214	337	203	56	298	115
Spanish mackerel	H	4,472	4,882	5,482	9,000	4,479	5,491	5,585	6,369	4,748	8,321
	R	6,456	6,370	4,616	11,855	6,157	4,236	2,762	7,935	6,153	9,900
Spotted seatrout	H	21,831	27,012	27,503	24,005	5,060	6,621	9,197	6,942	6,435	5,207
	R	32,908	43,436	47,941	43,650	18,523	19,787	29,400	30,569	19,870	18,928
Striped mullet	H	4,128	4,397	6,239	7,848	6,210	6,987	5,629	4,554	6,112	3,672
	R	300	666	536	557	1,416	382	1,195	147	976	596

[1] NA = not available.
[2] West Florida anglers estimates are not available for the non-coastal mode.
[3] Texas trip estimates are not available for the shore mode.
[4] Data collected by the Texas Parks and Wildlife Department (TPWD) is reported in this table. The data collected by the TPWD differs from the data collected and reported in the MRIP. Data on the number of fish released are not reported by TPWD. [For more information: www.tpwd.state.tx.us.]
[5] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.

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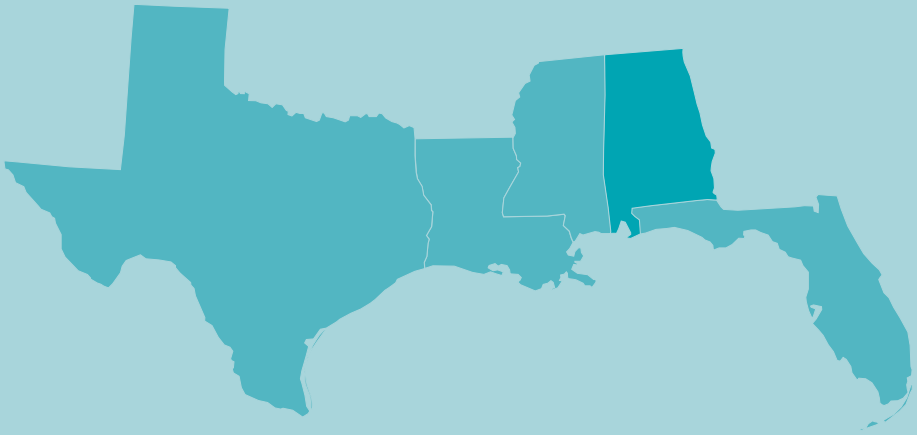


2019 Economic Impacts of the Alabama Seafood Industry (thousands of dollars)[1]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	10,058	495,606	194,938	255,812	9,892	472,353	189,188	247,028
Commercial Harvesters	1,669	95,074	28,256	42,026	1,669	95,074	28,256	42,026
Seafood Processors & Dealers	1,739	130,093	50,958	64,756	1,630	121,909	47,752	60,682
Importers	45	14,588	2,338	4,447	0	0	0	0
Seafood Wholesalers & Distributors	159	8,854	3,104	3,998	157	8,758	3,070	3,955
Retail	6,446	246,997	110,282	140,585	6,436	246,613	110,110	140,366

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	26,283	49,995	44,942	50,777	62,843	43,165	50,820	56,222	67,670	57,662
Finfish	2,620	3,883	4,821	4,433	4,376	4,046	4,437	3,978	4,431	4,645
Shellfish and Other	23,663	46,112	40,121	46,344	58,467	39,119	46,383	52,244	63,239	53,017
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	732	1,128	1,044	1,037	1,296	1,226	1,785	1,520	1,150	1,404
King mackerel	93	207	220	439	416	344	281	121	143	190
Menhaden	15	58	84	104	147	154	164	158	173	71
Mullets	594	695	1,266	1,181	1,123	761	522	537	591	392
Oysters	389	1,322	1,255	786	433	341	601	557	914	1,543
Red snapper	329	314	316	401	697	1,443	1,423	1,852	1,559	2,024
Sharks	NA	26	6	202	116	NA	NA	71	122	NA
Shrimp	22,534	43,608	37,720	44,427	56,712	37,533	43,973	50,138	61,038	50,020
Spanish mackerel	499	582	1,149	940	471	705	833	439	670	577
Vermilion snapper	384	622	393	88	385	247	242	267	277	482

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	13,995	25,621	25,553	21,648	23,718	22,773	24,579	26,737	35,353	26,021
Finfish	3,305	4,735	6,095	5,410	5,126	3,754	4,422	4,029	5,773	4,102
Shellfish and Other	10,690	20,886	19,458	16,238	18,592	19,018	20,157	22,709	29,579	21,919
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	927	1,617	1,325	1,027	1,161	1,301	1,918	1,425	1,034	1,516
King mackerel	49	119	117	175	184	146	112	53	59	79
Menhaden	81	364	521	496	700	695	804	1,052	1,713	745
Mullets	1,202	1,270	2,002	1,795	1,907	1,385	952	990	1,250	829
Oysters	68	296	265	133	58	26	37	26	25	141
Red snapper	83	78	78	108	180	356	320	410	360	452
Sharks	NA	75	18	312	193	NA	2	153	201	NA
Shrimp	9,683	18,840	17,603	14,883	17,339	17,665	18,171	21,224	28,309	20,204
Spanish mackerel	733	839	1,377	972	431	617	859	440	948	742
Vermilion snapper	148	224	132	28	124	74	76	80	83	146

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Blue crab	0.79	0.70	0.79	1.01	1.12	0.94	0.93	1.07	1.11	0.93
King mackerel	1.91	1.74	1.89	2.51	2.26	2.35	2.50	2.29	2.44	2.42
Menhaden	0.18	0.16	0.16	0.21	0.21	0.22	0.20	0.15	0.10	0.09
Mullets	0.49	0.55	0.63	0.66	0.59	0.55	0.55	0.54	0.47	0.47
Oysters	5.75	4.47	4.73	5.91	7.43	12.96	16.36	21.21	36.13	10.91
Red snapper	3.97	4.04	4.05	3.70	3.86	4.05	4.45	4.52	4.33	4.48
Sharks	NA	0.35	0.33	0.65	0.60	NA	0.11	0.46	0.61	NA
Shrimp	2.33	2.31	2.14	2.99	3.27	2.12	2.42	2.36	2.16	2.48
Spanish mackerel	0.68	0.69	0.83	0.97	1.09	1.14	0.97	1.00	0.71	0.78
Vermilion snapper	2.59	2.78	2.97	3.12	3.11	3.33	3.19	3.34	3.32	3.30

[1] Confidential data are not included in the economic impacts, landings revenue totals, or landings total for the Gulf of Mexico Region table and all state tables in this region, with the exception of West Florida.
[2] 'NA' = these data are confidential and therefore not disclosable.

2019 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	1,122	101,248	31,755	55,675
	Private Boat	1,125	119,726	30,115	77,375
	Shore	5,950	573,259	171,283	332,853
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		8,198	794,233	233,153	465,903

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	66,686
Private Boat	120,625
Shore	433,603
Total	620,914

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	620,914

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	195	295	254	279	220	225	274	186	211	NA
Non-Coastal	140	177	131	224	123	151	176	246	156	NA
Out-of-State	220	435	339	549	510	455	465	480	551	NA
Total Anglers	554	907	723	1,052	853	831	915	911	917	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	33	77	59	90	87	96	104	93	95	136
Private Boat	2,316	2,288	2,114	2,155	2,037	2,080	2,010	2,540	1,833	1,742
Shore	2,980	3,373	3,978	4,524	4,357	4,653	5,206	5,860	4,753	4,799
Total Trips	5,329	5,738	6,151	6,769	6,482	6,830	7,320	8,493	6,681	6,677

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	2,073	1,844	544	860	2,844	2,003	559	1,522	1,771	765
	R	4,412	4,659	2,011	2,016	3,605	3,468	1,393	6,101	4,870	3,813
Bluefish	H	108	398	210	362	173	109	690	105	93	373
	R	270	688	581	1,554	722	408	3,705	651	559	772
Kingfish[3]	H	2,069	1,408	646	2,545	850	1,082	916	1,756	2,047	645
	R	932	659	240	691	389	371	734	1,327	1,008	1,325
Red drum	H	307	343	323	451	290	413	386	387	378	358
	R	377	244	808	1,130	861	493	604	989	1,297	751
Red snapper	H	241	604	403	757	364	630	646	1,249	824	967
	R	1,269	1,434	549	1,477	2,018	1,366	2,834	2,397	1,720	1,878
Sand seatrout	H	5,519	3,379	2,277	1,078	1,431	2,315	1,894	2,639	2,268	1,543
	R	2,114	1,384	828	601	740	715	1,043	3,300	652	1,164
Sheepshead	H	779	1,113	1,065	493	335	845	283	569	310	214
	R	171	372	117	104	41	660	71	43	184	309
Southern flounder	H	579	318	242	194	123	104	139	101	83	25
	R	161	101	121	102	74	110	85	12	49	3
Spanish mackerel	H	631	1,309	1,478	2,921	477	2,240	1,772	2,529	1,601	3,752
	R	297	447	477	2,496	162	1,054	355	1,233	1,362	3,985
Spotted seatrout	H	1,576	1,455	1,396	1,299	574	1,228	1,464	891	839	285
	R	1,152	2,572	2,030	2,009	581	2,354	2,711	1,567	1,511	887

[1] NA = not available.
[2] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[3] Kingfish include south kingfish and Gulf kingfish.

2018 Alabama State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
336,445 (1.3%)	100,267 (1.3%)	1,730,817 (1.3%)	76.2 (1.1%)	121 (1.1%)	224	0.65

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	68	67	47	58	57	49	38	44	41
	Receipts	3,314	4,354	1,965	3,069	3,446	2,901	3,365	3,362	3,661
Seafood sales, retail	Firms	71	58	68	66	55	46	43	48	49
	Receipts	5,197	4,759	7,073	5,520	4,351	3,274	2,971	3,602	4,164

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

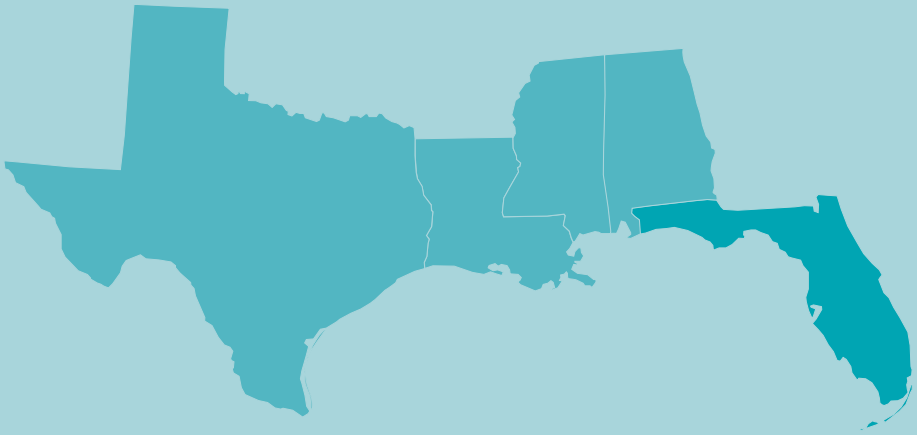
		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	21	16	17	22	23	20	20	20	19
	Employees	1,128	882	778	989	963	961	900	892	918
	Payroll	22,824	21,922	19,730	22,641	23,973	25,951	27,924	25,272	29,971
Seafood sales, wholesale	Establishments	23	25	16	18	18	21	17	16	15
	Employees	332	321	306	281	388	378	412	280	309
	Payroll	5,119	6,547	6,221	6,861	9,321	10,034	10,487	5,629	6,304
Seafood sales, retail	Establishments	34	32	32	28	31	32	32	37	36
	Employees	132	120	189	219	200	234	255	157	178
	Payroll	2,016	1,888	2,990	3,267	3,330	3,706	4,013	3,040	3,251

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[2,3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	32	35	37	38	37	41	43	35	35
	Employees	2,598	3,176	4,936	5,948	5,904	6,049	6,025	5,748	5,403
	Payroll	151,813	166,116	251,063	303,016	311,296	342,082	342,073	341,849	337,504
Deep Sea Freight Transportation	Establishments	5	6	5	5	2	2	1	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Deep Sea Passenger Transportation	Establishments	2	2	1	NA	NA	NA	NA	NA	NA
	Employees	ds	ds	ds	NA	NA	NA	NA	NA	NA
	Payroll	ds	ds	ds	NA	NA	NA	NA	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	5	5	4	5	5	4	4	8	8
	Employees	ds	215	ds	ds	45	ds	ds	56	51
	Payroll	ds	13,117	ds	ds	2,617	ds	ds	4,066	4,158
Port and Harbor Operations	Establishments	5	3	6	3	2	2	2	7	8
	Employees	ds	ds	101	4	ds	ds	ds	62	141
	Payroll	ds	ds	5,788	160	ds	ds	ds	3,704	7,965
Marine Cargo Handling	Establishments	19	19	10	13	13	14	15	12	13
	Employees	548	536	ds	554	778	666	709	574	1,004
	Payroll	32,143	34,998	ds	34,481	37,273	37,154	47,407	44,177	64,036
Navigational Services to Shipping	Establishments	16	16	14	12	16	14	14	22	20
	Employees	276	283	241	208	124	121	113	293	278
	Payroll	14,737	14,981	8,808	14,761	6,902	6,922	5,911	17,849	21,093
Marinas	Establishments	54	53	57	54	54	57	57	56	56
	Employees	609	ds	329	332	343	387	372	482	467
	Payroll	12,149	12,196	10,253	9,659	9,804	11,182	12,086	15,065	14,633

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

Tables | West Florida



2019 Economic Impacts of the Florida Seafood Industry (thousands of dollars)[1,2]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	81,647	19,373,993	3,619,588	6,476,479	9,338	964,486	254,045	389,720
Commercial Harvesters	6,098	473,077	147,440	196,494	6,098	473,077	147,440	196,494
Seafood Processors & Dealers	4,751	905,502	175,242	344,509	498	101,897	19,720	38,768
Importers	43,173	14,124,683	2,263,750	4,305,822	0	0	0	0
Seafood Wholesalers & Distributors	10,436	1,413,773	555,042	690,546	412	55,745	21,885	27,228
Retail	17,189	2,456,957	478,115	939,109	2,330	333,767	65,000	127,231

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	138,860	168,796	153,486	190,811	212,082	196,525	186,321	185,933	190,602	173,129
Finfish	41,086	59,652	62,378	69,868	71,546	65,077	67,970	64,482	58,294	58,622
Shellfish and Other	97,774	109,143	91,107	120,943	140,537	131,448	118,351	121,452	132,307	114,508
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	6,744	7,829	5,490	6,791	7,406	8,508	6,596	7,194	8,884	9,748
Gag	2,079	1,439	2,445	2,846	2,889	2,783	4,671	2,556	2,763	3,205
Lobsters	32,709	35,575	22,257	47,125	53,420	44,062	41,316	31,947	43,632	30,053
Mullet	4,189	8,649	6,192	11,409	9,389	6,181	6,988	5,009	4,499	4,209
Oyster	6,299	8,776	9,887	5,920	4,179	4,722	5,163	5,179	3,169	2,756
Quahog clam	1,029	1,003	805	1,141	221	191	58	117	73	114
Red grouper	8,992	15,086	16,761	16,428	21,219	18,952	17,881	14,158	11,258	10,691
Red snapper	4,553	5,417	6,142	8,208	8,126	10,011	8,649	9,552	10,166	11,751
Shrimp	24,977	27,255	23,831	30,452	42,790	34,663	31,189	44,136	41,417	34,454
Stone crab	23,258	24,233	24,594	25,172	27,965	35,778	29,926	29,058	32,273	33,957

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	67,753	83,986	76,041	75,134	81,547	74,794	72,931	75,192	71,657	66,575
Finfish	31,672	38,234	40,620	38,284	40,311	34,359	38,946	36,241	30,752	30,386
Shellfish and Other	36,080	45,753	35,421	36,850	41,236	40,435	33,985	38,951	40,905	36,188
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	5,796	6,924	4,463	4,767	4,467	4,880	3,871	4,411	5,465	6,016
Gag	572	369	613	687	689	642	1,076	575	576	623
Lobsters	5,280	5,298	3,772	5,647	5,041	5,451	5,017	3,624	5,824	3,837
Mullet	7,258	11,428	8,632	11,294	11,945	8,647	9,321	7,042	6,054	5,782
Oyster	2,164	3,167	3,368	1,735	758	844	853	786	517	432
Quahog clam	164	154	132	199	36	23	7	13	9	16
Red grouper	3,488	5,635	6,151	5,479	6,630	5,672	5,304	3,921	2,801	2,386
Red snapper	1,317	1,538	1,699	2,216	2,107	2,646	2,338	2,532	2,565	2,837
Shrimp	11,959	11,930	9,493	11,007	12,877	13,386	12,153	19,429	20,252	16,177
Stone crab	2,550	2,727	2,667	1,946	1,948	2,760	3,006	2,510	2,114	2,195

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Blue crab	1.16	1.13	1.23	1.42	1.66	1.74	1.70	1.63	1.63	1.62
Gag	3.63	3.90	3.99	4.14	4.19	4.33	4.34	4.45	4.79	5.14
Lobsters	6.20	6.72	5.90	8.34	10.60	8.08	8.24	8.81	7.49	7.83
Mullet	0.58	0.76	0.72	1.01	0.79	0.71	0.75	0.71	0.74	0.73
Oyster	2.91	2.77	2.94	3.41	5.51	5.60	6.05	6.59	6.13	6.38
Quahog clam	6.28	6.51	6.08	5.74	6.20	8.17	7.82	8.65	7.67	7.14
Red grouper	2.58	2.68	2.73	3.00	3.20	3.34	3.37	3.61	4.02	4.48
Red snapper	3.46	3.52	3.62	3.70	3.86	3.78	3.70	3.77	3.96	4.14
Shrimp	2.09	2.28	2.51	2.77	3.32	2.59	2.57	2.27	2.05	2.13
Stone crab	9.12	8.89	9.22	12.94	14.36	12.97	9.96	11.58	15.27	15.47

[1] Confidential data are not included in the economic impacts, landings revenue totals, or landings total for the Gulf of Mexico Region table and all state tables in this region, with the exception of West Florida.
[2] Information reported in this table is for the entire state of Florida.

2019 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	5,321	568,193	197,723	338,355
	Private Boat	7,821	839,745	284,301	541,789
	Shore	10,159	1,089,552	367,258	697,203
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		23,301	2,497,490	849,282	1,577,347

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	320,528
Private Boat	731,944
Shore	762,674
Total	1,815,146

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	1,815,146

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	1,538	1,592	1,718	1,813	1,649	1,414	1,393	1,400	1,193	NA
Non-Coastal[1]	0	0	0	0	0	0	0	0	0	NA
Out-of-State	1,470	1,624	2,141	2,538	2,716	2,399	2,306	2,383	2,046	NA
Total Anglers	3,008	3,216	3,859	4,351	4,365	3,813	3,699	3,783	3,238	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	494	560	715	686	693	769	805	772	825	984
Private Boat	20,585	20,688	23,306	21,551	18,859	16,775	17,883	18,025	17,326	15,293
Shore	18,368	18,815	20,977	24,056	19,073	18,186	20,249	23,043	22,845	19,367
Total Trips	39,446	40,063	44,998	46,293	38,625	35,730	38,936	41,840	40,996	35,645

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Common snook	H	0	1	1	39	33	36	48	66	22	20
	R	1,244	1,687	2,561	3,801	3,622	5,195	7,208	5,824	4,967	6,285
Gag grouper	H	590	313	282	466	327	278	214	279	304	250
	R	5,084	3,597	2,680	2,663	2,057	1,289	2,122	3,354	2,267	2,431
Gray snapper	H	1,396	1,528	3,877	3,561	4,609	3,474	3,787	3,098	3,171	3,502
	R	5,094	7,116	10,027	15,084	17,621	15,712	12,922	13,954	13,778	12,628
King mackerel	H	389	350	470	399	563	485	575	476	352	297
	R	201	159	202	182	254	157	405	204	49	134
Mullets[5]	H	2,383	2,308	4,424	4,394	4,022	3,146	3,931	3,699	9,364	3,252
	R	160	266	245	597	1,519	519	1,585	606	977	587
Porgies (sheepshead)	H	1,696	1,634	2,113	1,500	1,883	1,349	1,546	2,757	1,827	1,122
	R	4,232	3,054	3,108	3,468	3,590	2,130	2,201	4,039	4,956	2,956
Red drum	H	570	702	1,110	902	836	1,124	844	805	626	601
	R	5,505	6,632	6,061	5,576	5,510	6,996	5,755	4,423	5,407	9,582
Sand and silver seatrouts[6]	H	1,097	2,424	4,387	2,139	1,279	959	521	1,463	598	486
	R	600	856	2,309	675	420	1,434	665	1,052	364	217
Spanish mackerel	H	3,767	3,510	3,796	5,960	3,974	3,184	3,677	3,810	2,964	4,537
	R	6,130	5,865	4,014	9,343	5,986	3,171	2,354	6,589	4,719	5,796
Spotted seatrout	H	2,519	3,821	4,493	3,657	2,714	2,730	3,299	3,680	3,467	2,790
	R	19,924	28,685	29,785	20,134	16,124	15,691	22,996	24,949	16,301	15,212

[1] NA = not available.
[2] Non-coastal data are not available because all of the state's residents are considered coastal county residents.
[3] Data collected by the Texas Parks and Wildlife Department (TPWD) is reported in this table. The data collected by the TPWD differs from the data collected and reported in the MRIP. Data on the number of fish released are not reported by TPWD. [For more information: www.tpwd.state.tx.us.]
[4] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[5] Mullets include striped mullet and mullet genus.
[6] Sand and silver seatrouts include silver seatrout and sand seatrout.

2018 Florida State Economy (% of national total)[1]

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[2]
2,388,050 (9%)	566,894 (7.2%)	8,669,611 (6.6%)	404 (5.7%)	574 (5.3%)	1,058	0.84

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)[1]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	280	294	307	300	315	300	316	280	287
	Receipts	14,635	14,618	17,557	17,214	22,329	21,841	20,834	19,651	21,888
Seafood sales, retail	Firms	361	362	383	338	346	355	320	316	349
	Receipts	27,964	29,037	30,765	25,332	26,433	29,033	24,296	27,937	30,559

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[1]

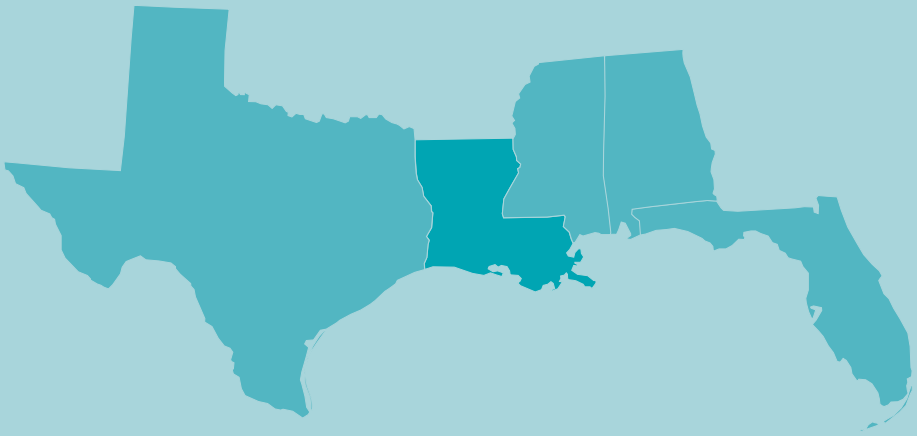
		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	27	24	27	25	27	27	23	23	22
	Employees	1,269	1,095	1,608	1,374	1,419	1,429	1,535	1,942	1,591
	Payroll	45,772	42,612	51,735	50,003	50,556	58,246	63,039	79,173	69,416
Seafood sales, wholesale	Establishments	229	250	226	234	233	242	239	230	232
	Employees	1,747	1,913	1,957	1,878	1,974	2,055	1,849	2,098	2,128
	Payroll	70,889	77,115	75,945	79,266	83,964	90,247	83,818	89,907	101,920
Seafood sales, retail	Establishments	145	145	151	165	166	181	191	176	186
	Employees	865	849	945	909	1,037	1,137	1,133	1,140	1,164
	Payroll	20,783	20,158	21,577	23,476	25,844	29,066	26,981	29,146	30,086

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	248	246	258	259	263	278	281	269	284
	Employees	7,363	7,909	8,621	8,813	9,608	10,913	11,170	11,114	10,767
	Payroll	302,909	325,942	374,831	390,853	448,514	488,050	512,454	516,473	533,913
Deep Sea Freight Transportation	Establishments	61	65	75	69	77	76	65	58	64
	Employees	2,279	2,374	3,345	2,485	2,015	2,154	1,639	2,189	2,362
	Payroll	159,025	177,386	231,887	140,564	131,069	137,786	113,897	193,568	211,165
Deep Sea Passenger Transportation	Establishments	29	29	39	31	28	32	33	38	39
	Employees	ds	ds	ds	ds	ds	10,510	10,161	9,882	10,714
	Payroll	ds	ds	ds	ds	ds	967,938	864,475	970,607	1,013,720
Coastal and Great Lakes Freight Transportation	Establishments	50	54	60	47	62	57	62	64	67
	Employees	709	753	1,381	1,050	1,743	1,815	1,966	2,245	2,176
	Payroll	50,217	53,341	100,402	82,078	175,366	173,004	199,592	242,810	243,498
Port and Harbor Operations	Establishments	34	32	66	61	56	55	54	50	50
	Employees	470	377	2,082	555	588	987	1,006	1,560	1,867
	Payroll	20,525	16,879	72,554	25,439	20,647	32,032	32,969	39,956	44,789
Marine Cargo Handling	Establishments	55	64	43	58	61	69	63	72	66
	Employees	7,547	7,484	4,598	6,258	6,992	7,834	7,048	6,269	6,733
	Payroll	191,560	195,458	86,461	188,997	179,024	208,186	191,828	210,284	228,818
Navigational Services to Shipping	Establishments	145	150	151	180	190	196	194	226	223
	Employees	980	1,047	853	1,390	878	861	922	1,074	1,017
	Payroll	76,853	75,561	68,366	130,893	74,185	72,483	73,708	81,050	79,333
Marinas	Establishments	430	411	432	444	464	466	458	450	450
	Employees	4,439	4,657	4,918	5,076	5,421	5,472	5,405	5,481	5,738
	Payroll	133,017	142,997	148,573	145,265	168,185	171,354	176,315	184,529	202,187

[1] All data presented on this page are for the entire state of Florida, not just West Florida.
[2] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[3] ds = Data are suppressed.

Tables | Louisiana



2019 Economic Impacts of the Louisiana Seafood Industry (thousands of dollars)[1]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	27,686	1,708,923	628,327	855,392	26,818	1,521,523	590,421	791,666
Commercial Harvesters	10,168	594,254	200,029	294,182	10,168	594,254	200,029	294,182
Seafood Processors & Dealers	2,355	235,021	91,160	116,278	2,205	219,997	85,332	108,845
Importers	468	152,998	24,521	46,640	0	0	0	0
Seafood Wholesalers & Distributors	855	110,310	37,579	48,644	765	98,688	33,620	43,519
Retail	13,841	616,339	275,039	349,648	13,680	608,583	271,440	345,121

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	244,507	331,054	327,870	396,047	480,068	368,762	417,711	369,090	375,899	317,319
Finfish	69,683	111,468	89,747	102,938	96,566	108,039	157,254	84,623	114,225	81,012
Shellfish and Other	174,824	219,586	238,123	293,108	383,503	260,723	260,457	284,467	261,675	236,307
Key Species	-	-	-	-	-	-	-	-	-	
Blue crab	30,052	36,827	42,402	51,467	66,989	58,084	49,487	54,217	60,667	52,232
Crawfish	14,014	9,887	8,291	16,457	16,144	6,852	12,373	12,105	12,550	13,169
King mackerel	1,147	1,570	1,452	1,477	2,379	2,006	2,150	2,073	2,003	2,427
Menhaden	57,600	93,547	64,861	80,325	72,832	85,439	132,105	60,909	90,315	60,347
Mullets	185	775	976	626	916	418	720	757	389	132
Oysters	24,775	41,086	41,981	43,832	64,665	81,806	62,236	84,417	75,973	50,134
Red snapper	1,945	1,936	2,187	4,315	5,836	5,951	5,198	6,716	6,112	5,445
Shrimp	105,764	131,393	145,103	181,053	235,420	113,711	136,128	133,299	112,016	120,385
Tunas	1,647	3,369	7,906	4,594	3,418	2,837	4,290	2,583	2,324	1,813
Vermilion snapper	371	505	662	473	688	619	914	821	699	581

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	1,003,999	1,284,246	1,213,719	991,060	870,175	1,067,089	1,252,400	897,825	1,031,962	898,851
Finfish	877,489	1,128,383	1,050,357	822,014	686,165	915,083	1,090,590	737,231	875,882	761,232
Shellfish and Other	126,510	155,864	163,362	169,046	184,010	152,006	161,811	160,595	156,080	137,619
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	30,554	43,891	44,323	39,064	43,219	41,308	40,099	43,874	42,742	37,404
Crawfish	14,609	9,582	6,834	19,641	13,055	5,461	13,573	8,575	11,178	9,406
King mackerel	690	986	954	759	1,144	1,047	994	1,052	1,021	1,108
Menhaden	862,144	1,106,931	1,026,240	800,101	663,693	893,789	1,068,690	716,056	855,216	741,233
Mullets	362	1,385	1,385	609	1,186	692	1,005	1,093	630	258
Oysters	6,822	11,039	11,324	11,196	12,235	13,994	11,010	13,329	10,924	7,095
Red snapper	728	829	928	1,067	1,325	1,405	1,236	1,557	1,414	1,414
Shrimp	74,000	90,552	100,182	98,604	114,794	90,507	96,658	94,226	90,673	83,301
Tunas	490	932	2,152	1,241	1,104	664	1,139	679	570	431
Vermilion snapper	173	229	287	173	237	207	331	311	254	206

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Blue crab	0.98	0.84	0.96	1.32	1.55	1.41	1.23	1.24	1.42	1.40
Crawfish	0.96	1.03	1.21	0.84	1.24	1.25	0.91	1.41	1.12	1.40
King mackerel	1.66	1.59	1.52	1.95	2.08	1.92	2.16	1.97	1.96	2.19
Menhaden	0.07	0.08	0.06	0.10	0.11	0.10	0.12	0.09	0.11	0.08
Mullets	0.51	0.56	0.70	1.03	0.77	0.60	0.72	0.69	0.62	0.51
Oysters	3.63	3.72	3.71	3.91	5.29	5.85	5.65	6.33	6.95	7.07
Red snapper	2.67	2.33	2.36	4.04	4.40	4.23	4.20	4.31	4.32	3.85
Shrimp	1.43	1.45	1.45	1.84	2.05	1.26	1.41	1.41	1.24	1.45
Tunas	3.36	3.62	3.67	3.70	3.09	4.27	3.77	3.80	4.07	4.21
Vermilion snapper	2.15	2.20	2.30	2.73	2.90	3.00	2.76	2.64	2.75	2.83

[1] Confidential data are not included in the economic impacts, landings revenue totals, or landings total for the Gulf of Mexico Region table and all state tables in this region, with the exception of West Florida.

2019 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	1,746	147,598	46,317	78,576
	Private Boat	2,951	370,044	116,787	216,159
	Shore	636	73,193	24,181	43,920
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		5,333	590,834	187,285	338,655

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	92,007
Private Boat	281,829
Shore	55,708
Total	429,544

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	429,544

Recreational Anglers by Residential Area (thousands of anglers)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	609	690	651	709	NA	NA	NA	NA	NA	NA
Non-Coastal	67	86	77	109	NA	NA	NA	NA	NA	NA
Out-of-State	120	183	165	262	NA	NA	NA	NA	NA	NA
Total Anglers	796	959	893	1,080	NA	NA	NA	NA	NA	NA

Recreational Fishing Effort by Mode (thousands of angler trips)[3]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	76	97	108	122	131	160	179	179	183	169
Private Boat	6,098	5,944	5,730	5,477	2,096	2,266	2,062	2,130	2,093	1,940
Shore	5,048	5,413	5,051	5,172	NA	NA	NA	NA	NA	NA
Total Trips	11,223	11,454	10,889	10,770	2,227	2,425	2,242	2,308	2,276	2,108

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[4,5,6,7]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	581	1,123	1,288	2,328	235	209	150	150	134	86
	R	3,861	5,472	4,122	3,973	0	0	0	0	0	0
Black drum	H	897	1,091	995	1,020	218	220	138	143	148	121
	R	2,424	2,854	2,421	4,064	0	0	0	0	0	0
Red drum	H	5,850	5,780	3,941	5,679	1,283	1,244	1,045	1,644	1,977	1,224
	R	8,994	6,809	6,505	10,046	0	0	0	0	0	0
Red snapper	H	12	63	153	113	128	171	145	119	101	123
	R	12	210	216	333	0	0	0	0	0	0
Sand seatrout	H	2,178	2,513	2,070	1,458	532	370	354	359	426	314
	R	1,150	2,475	1,397	1,845	0	0	0	0	0	0
Sheepshead	H	1,323	2,748	1,277	975	262	258	225	553	308	399
	R	1,306	514	605	1,386	0	0	0	0	0	0
Southern flounder	H	674	988	689	1,531	209	217	222	94	65	103
	R	187	189	207	251	0	0	0	0	0	0
Southern kingfish	H	206	34	316	41	4	20	6	18	25	18
	R	91	72	113	118	0	0	0	0	0	0
Spotted seatrout	H	15,582	19,035	19,410	16,267	3,231	4,292	5,326	5,142	2,578	3,542
	R	10,186	10,961	14,055	19,153	0	0	0	0	0	0
Yellowfin tuna[8]	H	2	21	47	13	14	23	28	23	6	5
	R	0	8	6	2	0	0	0	0	0	0

[1] NA = not available.
[2] Louisiana resident participation is estimated from historical Marine Recreational Information Program (MRIP) data (2010-2013) and a state creel survey (2014-2019).
[3] Effort for 2014-2019 in Louisiana is estimated using data from a state creel survey and does not capture shore-based effort separately from private boat effort.
[4] Data collected by the Texas Parks and Wildlife Department (TPWD) is reported in this table. The data collected by the TPWD differs from the data collected and reported in the MRIP. Data on the number of fish released are not reported by TPWD. [For more information: www.tpwd.state.tx.us.]
[5] Louisiana harvest and release totals for 2014-2019 are estimated using data from a state creel survey.
[6] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[7] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[8] Yellowfin tuna include yellowfin tuna and swordfish.

2018 Louisiana State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
385,074 (1.5%)	106,359 (1.3%)	1,691,552 (1.3%)	78.8 (1.1%)	127 (1.2%)	256	4.83

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	120	94	78	99	111	115	113	124	110
	Receipts	10,358	9,308	8,492	9,136	8,632	10,086	11,917	12,051	10,552
Seafood sales, retail	Firms	197	192	184	173	177	169	180	174	157
	Receipts	16,001	18,758	16,804	17,538	17,383	17,870	18,880	17,009	17,201

Seafood Sales and Processing — Employer Establishments (thousands of dollars)

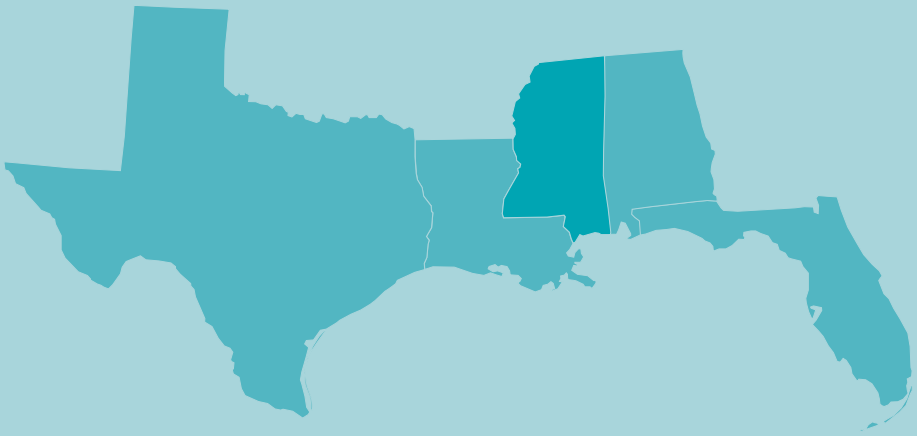
		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	34	33	35	36	37	38	34	36	34
	Employees	1,209	1,006	1,117	964	943	1,015	1,069	1,495	1,388
	Payroll	35,770	46,440	51,237	49,339	50,881	63,909	37,506	53,273	59,597
Seafood sales, wholesale	Establishments	97	94	103	106	109	111	116	114	113
	Employees	683	767	862	846	672	865	805	750	719
	Payroll	15,554	18,427	22,296	23,235	24,107	25,837	28,013	25,327	26,052
Seafood sales, retail	Establishments	101	100	97	94	90	90	90	93	96
	Employees	527	590	704	643	562	612	710	748	772
	Payroll	11,214	11,090	13,042	11,213	10,421	11,802	13,095	12,844	13,648

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	109	109	116	110	117	109	105	105	98
	Employees	11,737	11,722	10,933	7,413	8,512	8,470	5,629	5,765	5,101
	Payroll	600,259	639,047	631,098	416,319	479,243	401,977	316,927	311,710	287,719
Deep Sea Freight Transportation	Establishments	16	17	18	11	19	21	16	13	14
	Employees	93	93	ds	95	ds	451	300	126	358
	Payroll	6,147	5,608	ds	5,435	ds	21,706	25,246	12,921	23,746
Deep Sea Passenger Transportation	Establishments	1	3	2	4	4	3	3	3	3
	Employees	ds	ds	ds	3	ds	ds	ds	0	82
	Payroll	ds	ds	ds	363	ds	ds	ds	0	5,115
Coastal and Great Lakes Freight Transportation	Establishments	125	125	105	102	124	116	104	94	77
	Employees	5,610	5,834	6,422	5,317	6,275	5,212	3,919	4,686	4,522
	Payroll	405,796	417,362	497,165	458,589	556,693	396,625	273,575	351,229	346,765
Port and Harbor Operations	Establishments	21	20	46	18	14	15	15	24	31
	Employees	431	461	1,205	443	ds	399	421	806	1,130
	Payroll	38,776	38,745	80,780	37,122	ds	37,866	39,772	68,059	92,753
Marine Cargo Handling	Establishments	41	42	37	44	49	45	43	42	38
	Employees	2,511	2,526	2,016	2,834	3,106	3,418	2,955	2,324	2,133
	Payroll	105,063	108,491	93,896	174,054	212,786	175,092	156,891	116,330	91,315
Navigational Services to Shipping	Establishments	138	138	136	133	137	142	144	167	163
	Employees	3,176	3,396	2,545	2,533	2,816	2,862	2,780	3,079	3,064
	Payroll	224,533	208,306	162,094	169,795	206,318	218,379	203,905	223,344	225,309
Marinas	Establishments	43	45	44	41	39	36	38	38	34
	Employees	314	329	257	250	229	194	204	227	255
	Payroll	14,716	10,771	9,209	8,693	7,276	4,683	4,521	6,790	7,026

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.

Tables | Mississippi



2019 Economic Impacts of the Mississipi Seafood Industry (thousands of dollars)[1]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	7,506	399,975	157,334	203,736	7,444	389,986	154,868	199,986
Commercial Harvesters	1,632	93,542	29,185	42,074	1,632	93,542	29,185	42,074
Seafood Processors & Dealers	1,391	123,352	48,800	61,148	1,352	119,910	47,439	59,442
Importers	19	6,345	1,017	1,934	0	0	0	0
Seafood Wholesalers & Distributors	142	15,563	5,492	6,919	142	15,523	5,478	6,901
Retail	4,322	161,173	72,839	91,661	4,317	161,011	72,766	91,569

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)[2]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	21,612	30,163	49,142	34,600	38,394	64,713	28,994	31,073	44,431	58,661
Finfish	8,661	10,400	23,058	10,571	20,707	53,261	11,342	11,947	26,441	42,743
Shellfish and Other	12,951	19,763	26,084	24,029	17,686	11,452	17,652	19,126	17,990	15,918
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	371	321	724	416	931	1,209	913	793	806	692
Eastern oyster	4,268	928	1,596	1,544	1,742	969	1,088	344	19	NA
Menhaden	8,378	9,871	22,394	10,230	20,234	52,962	10,973	11,086	25,992	41,992
Mullets	31	56	63	61	14	12	22	39	72	18
Oysters	4,268	928	1,596	1,544	1,742	969	1,088	344	19	NA
Red drum	65	58	69	75	93	155	150	140	116	155
Shrimp	8,312	18,515	23,765	22,069	14,969	9,197	15,576	17,956	17,117	15,128

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	110,909	277,769	263,504	180,343	190,309	304,607	307,757	311,351	319,863	340,716
Finfish	104,941	267,107	249,291	170,745	184,213	294,413	294,381	300,080	309,426	332,753
Shellfish and Other	5,968	10,662	14,213	9,598	6,095	10,195	13,376	11,271	10,436	7,963
Key Species	-	-	-	-	-	-	-	-	-	-
Blue crab	367	370	782	359	559	798	780	626	519	573
Eastern oyster	1,453	247	425	336	333	182	245	60	3	NA
Menhaden	104,729	266,756	248,846	170,495	183,950	294,189	294,189	299,630	309,058	332,372
Mullets	59	93	99	95	22	21	40	68	176	35
Oysters	1,453	247	425	336	333	182	245	60	3	NA
Red drum	36	28	35	37	43	61	61	57	48	62
Shrimp	4,148	10,045	13,006	8,903	5,187	9,185	12,324	10,566	9,896	7,359

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Blue crab	1.01	0.87	0.93	1.16	1.66	1.51	1.17	1.27	1.55	1.21
Eastern oyster	2.94	3.75	3.75	4.59	5.23	5.32	4.44	5.78	7.46	NA
Menhaden	0.08	0.04	0.09	0.06	0.11	0.18	0.04	0.04	0.08	0.13
Mullets	0.52	0.61	0.64	0.64	0.63	0.56	0.55	0.58	0.41	0.50
Oysters	2.94	3.75	3.75	4.59	5.23	5.32	4.44	5.78	7.46	NA
Red drum	1.77	2.04	1.99	2.04	2.15	2.53	2.48	2.47	2.42	2.51
Shrimp	fc2.00	1.84	1.83	2.48	2.89	1.00	1.26	1.70	1.73	2.06

[1] Confidential data are not included in the economic impacts, landings revenue totals, or landings total for the Gulf of Mexico Region table and all state tables in this region, with the exception of West Florida.
[2] NA = these data are confidential and therefore not disclosable.

2019 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	200	16,798	5,118	8,895
	Private Boat	504	49,202	15,592	29,639
	Shore	695	54,974	19,351	35,584
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		1,399	120,974	40,061	74,119

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures
For-Hire	11,011
Private Boat	46,217
Shore	47,231
Total	104,459

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	104,459

Recreational Anglers by Residential Area (thousands of anglers)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Coastal	137	160	179	171	171	195	156	153	169	NA
Non-Coastal	29	48	60	67	62	48	83	50	78	NA
Out-of-State	50	60	91	101	94	114	106	97	176	NA
Total Anglers	216	268	331	339	328	357	345	300	423	NA

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	4	11	11	11	17	42	25	16	19	20
Private Boat	1,566	1,600	1,643	1,599	1,486	1,568	1,733	1,606	1,527	1,382
Shore	2,940	2,892	2,838	2,731	2,808	2,984	2,960	3,225	3,009	2,825
Total Trips	4,509	4,503	4,493	4,342	4,312	4,594	4,718	4,848	4,555	4,227

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)[2,3,4]

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	H	692	1,358	752	819	2,120	957	1,241	1,262	1,270	1,986
	R	1,585	1,842	1,673	630	704	1,690	3,292	4,239	4,503	4,776
Kingfish[5]	H	413	395	546	976	437	1,066	1,713	798	698	226
	R	162	90	326	195	298	122	409	391	130	254
Red drum	H	219	153	210	320	201	203	329	246	384	502
	R	571	387	1,173	828	885	575	769	1,662	1,500	1,339
Red snapper	H	< 1	40	109	48	13	20	91	121	101	177
	R	120	< 1	10	134	127	472	333	750	246	639
Sand and silver seatrouts[6]	H	2,338	2,599	2,145	1,589	1,797	2,391	3,242	4,924	2,540	1,612
	R	680	879	1,063	494	305	418	1,059	1,513	1,790	872
Sharks[7]	H	232	56	19	109	12	11	6	12	4	3
	R	333	82	207	147	65	27	134	28	94	34
Sheepshead	H	119	557	235	207	198	185	107	815	98	100
	R	10	89	91	122	52	1,059	48	77	124	128
Southern flounder	H	546	421	401	448	255	172	225	96	126	181
	R	256	246	319	279	138	225	110	39	249	102
Spotted seatrout	H	1,421	1,563	1,395	1,985	1,183	1,838	3,410	1,390	1,383	1,132
	R	1,645	1,218	2,071	2,354	1,818	1,741	3,693	4,053	2,059	2,828
Striped mullet	H	521	1,291	660	1,883	869	2,664	1,254	615	1,631	283
	R	65	165	204	57	17	323	18	5	133	291

[1] NA = not available.
[2] Data collected by the Texas Parks and Wildlife Department (TPWD) is reported in this table. The data collected by the TPWD differs from the data collected and reported in the MRIP. Data on the number of fish released are not reported by TPWD. [For more information: www.tpwd.state.tx.us.]
[3] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[4] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.
[5] Kingfish include south kingfish and Gulf kingfish.
[6] Sand and silver seatrouts include silver seatrout and sand seatrout.
[7] Sharks include unidentified (sharks), shark species, requiem shark family, requiem shark, Atlantic sharpnose shark, requiem shark genus, and blacktip shark.

2017 Mississippi State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
222,159 (0.8%)	59,271 (0.7%)	944,890 (0.7%)	36.8 (0.5%)	62.0 (0.6%)	112	4.27

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	30	25	27	ds	21	12	20	19	22
	Receipts	1,937	2,108	930	ds	1,932	1,539	2,879	2,852	3,844
Seafood sales, retail	Firms	69	51	50	54	42	53	58	54	48
	Receipts	3,421	3,505	3,957	3,855	3,129	4,053	4,836	4,397	3,602

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[2]

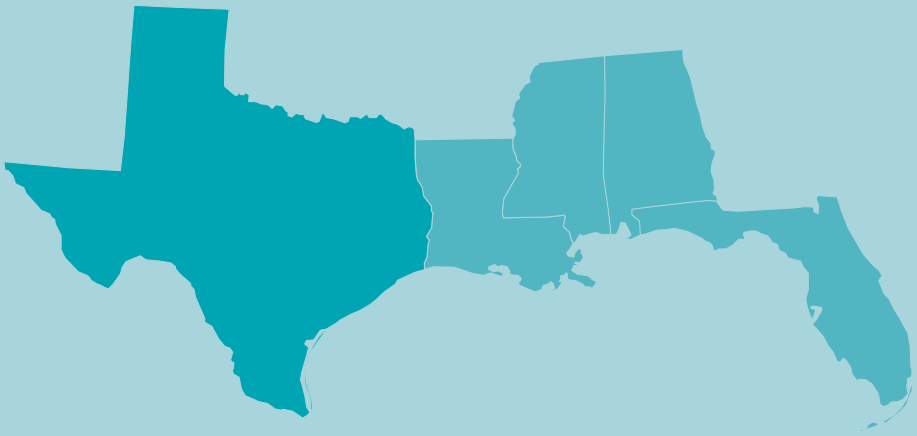
		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	20	18	18	19	19	18	18	19	18
	Employees	2,849	2,464	2,368	2,284	2,289	2,370	2,589	2,686	2,404
	Payroll	61,731	52,502	55,407	59,212	57,324	60,906	65,003	79,080	77,378
Seafood sales, wholesale	Establishments	18	18	17	14	14	14	15	13	13
	Employees	ds	64	102	ds	ds	39	46	37	28
	Payroll	2,542	2,532	4,412	1,546	1,587	1,800	2,038	1,819	1,682
Seafood sales, retail	Establishments	15	17	13	13	10	8	9	12	10
	Employees	50	58	ds	ds	ds	96	228	128	91
	Payroll	810	838	1,902	ds	ds	2,672	3,092	3,029	2,805

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	20	20	18	19	18	18	16	14	15
	Employees	ds	ds	ds	ds	ds	14,722	14,066	13,602	13,928
	Payroll	ds	ds	ds	ds	ds	892,317	899,814	875,851	944,237
Deep Sea Freight Transportation	Establishments	1	1	2	1	1	1	1	NA	NA
	Employees	ds	ds	ds	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	ds	ds	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	4	4	4	6	4	4	4	3	3
	Employees	ds	127	ds	230	277	259	ds	1	10
	Payroll	8,058	7,233	ds	17,080	16,365	17,353	ds	242	430
Port and Harbor Operations	Establishments	1	1	3	2	1	1	1	3	3
	Employees	ds	ds	ds	ds	ds	ds	ds	0	31
	Payroll	ds	ds	ds	ds	ds	ds	ds	0	1,917
Marine Cargo Handling	Establishments	7	7	2	4	5	5	6	6	6
	Employees	ds	ds	ds	ds	ds	241	173	0	458
	Payroll	ds	ds	ds	ds	ds	10,390	7,562	0	13,061
Navigational Services to Shipping	Establishments	8	6	7	6	7	7	7	9	9
	Employees	141	ds	ds	ds	ds	57	42	130	106
	Payroll	6,982	ds	ds	ds	ds	2,698	2,748	8,406	7,739
Marinas	Establishments	18	19	16	16	18	17	18	17	18
	Employees	183	189	204	154	193	197	199	201	223
	Payroll	4,163	5,137	5,361	3,972	4,960	5,047	5,517	5,215	5,503

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

Tables | Texas



2019 Economic Impacts of the Texas Seafood Industry (thousands of dollars)[1]

	With Imports				Without Imports			
	#Jobs	Sales	Income	Value Added	#Jobs	Sales	Income	Value Added
Total Impacts	39,384	5,415,475	1,322,455	2,091,356	16,556	1,152,738	426,016	593,688
Commercial Harvesters	4,629	435,803	134,192	209,451	4,629	435,803	134,192	209,451
Seafood Processors & Dealers	3,416	332,508	125,087	164,743	1,551	150,941	56,783	74,785
Importers	10,203	3,338,149	535,002	1,017,614	0	0	0	0
Seafood Wholesalers & Distributors	2,228	350,051	116,798	161,743	447	70,238	23,436	32,454
Retail	18,907	958,964	411,376	537,804	9,929	495,756	211,605	276,998

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	173,100	225,141	205,760	258,124	263,614	180,421	205,129	230,633	211,848	209,279
Finfish	7,806	8,261	9,955	12,787	13,572	15,947	17,411	16,147	16,023	18,954
Shellfish and Other	165,294	216,881	195,805	245,337	250,043	164,474	187,718	214,486	195,824	190,325
Key Species	-	-	-	-	-	-	-	-	-	-
Atlantic croaker	531	621	743	819	690	725	856	767	1,276	1,320
Black drum	1,574	1,443	1,492	1,706	1,981	2,074	2,341	2,458	1,840	2,288
Blue crab	3,131	2,838	2,878	2,331	3,057	5,539	6,789	5,423	4,886	5,529
Flounders	58	204	175	73	99	187	239	164	73	107
Groupers	384	560	760	1,149	1,154	1,481	1,593	1,154	755	1,302
Oysters	19,147	12,796	21,306	23,471	19,222	8,254	17,129	20,404	23,999	33,496
Red snapper	3,009	3,274	4,448	7,329	7,617	9,387	10,573	9,881	10,838	12,548
Shrimp	142,879	200,992	171,379	219,396	227,588	150,466	163,564	188,477	166,771	151,041
Tunas	4	2	5	7	27	3	3	1	1	1
Vermilion snapper	1,337	1,274	1,434	659	604	920	584	443	333	323

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	79,503	96,920	90,159	83,583	78,027	84,228	79,366	90,673	84,385	74,918
Finfish	4,185	4,106	4,101	4,691	4,795	5,370	5,683	5,201	4,643	5,379
Shellfish and Other	75,318	92,814	86,058	78,893	73,232	78,859	73,683	85,472	79,741	69,539
Key Species	-	-	-	-	-	-	-	-	-	-
Atlantic croaker	67	79	89	96	79	88	101	88	131	129
Black drum	1,733	1,789	1,624	1,698	1,747	1,879	2,055	1,926	1,469	1,795
Blue crab	3,434	2,886	2,854	1,902	2,238	4,336	5,323	4,132	3,431	3,913
Flounders	20	75	60	21	25	51	64	40	18	26
Groupers	154	194	220	300	280	354	372	271	169	267
Oysters	5,796	4,342	5,818	6,126	4,129	1,587	3,127	3,504	3,859	5,288
Red snapper	1,031	952	1,123	1,807	1,797	2,152	2,390	2,213	2,353	2,603
Shrimp	66,022	85,485	77,304	70,818	66,815	72,871	65,171	77,795	72,415	60,281
Tunas	1	1	3	3	9	1	2	1	1	1
Vermilion snapper	539	466	511	234	203	307	192	149	107	104

Average Annual Ex-Vessel Price of Key Species/Species Groups (dollars per pound)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	7.98	7.84	8.31	8.55	8.68	8.20	8.51	8.73	9.78	10.23
Black drum	0.91	0.81	0.92	1.00	1.13	1.10	1.14	1.28	1.25	1.27
Blue crab	0.91	0.98	1.01	1.23	1.37	1.28	1.28	1.31	1.42	1.41
Flounders	2.92	2.74	2.94	3.55	3.91	3.65	3.72	4.10	3.98	4.15
Groupers	2.49	2.89	3.45	3.84	4.12	4.18	4.28	4.25	4.47	4.87
Oysters	3.30	2.95	3.66	3.83	4.66	5.20	5.48	5.82	6.22	6.33
Red snapper	2.92	3.44	3.96	4.06	4.24	4.36	4.42	4.47	4.61	4.82
Shrimp	2.16	2.35	2.22	3.10	3.41	2.06	2.51	2.42	2.30	2.51
Tunas	3.19	1.82	1.83	2.10	2.94	2.43	1.41	1.53	2.11	2.43
Vermilion snapper	2.48	2.73	2.80	2.81	2.98	3.00	3.04	2.97	3.12	3.10

[1] Confidential data are not included in the economic impacts, landings revenue totals, or landings total for the Gulf of Mexico Region table and all state tables in this region, with the exception of West Florida.

2019 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)[1]

		#Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	2,147	247,445	83,502	149,011
	Private Boat	1,848	260,232	80,756	157,920
	Shore	NA	NA	NA	NA
Total Durable Expenditures		NA	NA	NA	NA
Total State Economic Impacts		3,996	507,678	164,258	306,931

2019 Angler Trip and Durable Goods Expenditures (thousands of dollars)[2]

Fishing Mode	Trip Expenditures
For-Hire	146,402
Private Boat	162,169
Shore	NA
Total	308,571

Equipment	Durable Goods Expenditures
Fishing Tackle	NA
Other Equipment	NA
Boat Expenses	NA
Vehicle Expenses	NA
Second Home Expenses	NA
Total Durable Expenditures	NA

Total State Trip and Durable Goods Expenditures	308,571

Recreational Fishing Effort by Mode (thousands of angler trips)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
For-Hire	123	162	227	145	137	147	162	191	309	375
Private Boat	868	963	932	1,005	932	896	1,025	953	938	939
Shore	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Trips	991	1,125	1,159	1,150	1,069	1,043	1,187	1,144	1,247	1,313

Harvest (H) of Key Species/Species Groups (thousands of fish)[3,4,5]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atlantic croaker	125	157	157	152	117	214	126	67	64	55
Black drum	165	129	257	150	139	128	138	165	139	176
King mackerel	6	9	9	10	13	9	12	15	24	18
Red drum	264	347	323	269	247	241	288	300	276	304
Red snapper	33	36	34	48	40	50	31	45	55	77
Sand seatrout	127	227	177	151	147	110	135	96	60	102
Sheepshead	49	57	143	84	39	51	106	60	84	123
Southern flounder	30	92	96	92	71	85	104	77	42	69
Spanish mackerel	11	8	5	2	3	2	4	7	6	2
Spotted seatrout	732	1,137	810	796	590	825	1,025	982	746	999

[1] NA = not available.
[2] The Marine Recreational Information Program (MRIP) does not collect participation (number of anglers) or effort (number of trips) data for Texas. To calculate trip expenditure estimates, effort by fishing mode was estimated based on 2018 data provided by the Texas Parks and Wildlife Department (TPWD). [For more information: www.tpwd.state.tx.us.]
[3] Data collected by the Texas Parks and Wildlife Department (TPWD) is reported in this table. Data collected by TPWD differs from the data collected and reported in MRIP. Data on the number of fish released are not reported by TPWD. [For more information: www.tpwd.state.tx.us.]
[4] Key species/species groups were chosen to represent those most frequently caught or highly prized by recreational anglers, or important for management. It is not a comprehensive list nor ranked by the total number of fish caught/released.
[5] In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Texas State Economy (% of national total)

#Non-Employer Firms	#Establishments	#Employees	Annual Payroll ($ billions)	Employee Compensation ($ billions)	Gross State Product ($ billions)	Commercial Fishing Location Quotient[1]
2,514,301 (9.5%)	600,747 (7.6%)	10,794,596 (8.2%)	578 (8.1%)	901 (8.2%)	1,810	0.25

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Firms	99	119	123	123	128	178	165	131	125
	Receipts	3,224	5,734	6,675	7,484	6,706	11,051	10,057	8,187	7,504
Seafood sales, retail	Firms	184	171	194	173	199	178	167	174	179
	Receipts	12,124	13,433	14,891	15,094	15,160	15,660	13,072	13,935	14,582

Seafood Sales and Processing — Employer Establishments (thousands of dollars)[2]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Seafood product prep. & packaging	Establishments	22	24	22	30	32	29	34	35	31
	Employees	1,184	1,273	1,248	1,026	1,062	1,006	975	1,023	954
	Payroll	24,961	26,425	27,737	27,638	28,643	29,729	27,765	33,479	35,529
Seafood sales, wholesale	Establishments	77	82	71	75	89	90	86	81	95
	Employees	715	723	603	729	816	874	928	971	795
	Payroll	23,879	26,356	25,309	30,370	35,553	37,315	37,519	34,972	28,744
Seafood sales, retail	Establishments	52	50	60	60	59	62	57	52	50
	Employees	199	ds	ds	331	395	415	439	279	247
	Payroll	3,742	4,090	6,102	6,891	8,201	9,319	9,097	5,750	5,805

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)[3]

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Ship and Boat Building	Establishments	97	91	89	87	88	84	81	82	83
	Employees	3,386	2,773	5,601	5,686	5,178	4,956	5,098	4,936	4,903
	Payroll	147,492	153,077	310,230	297,248	306,571	283,838	270,717	261,783	313,380
Deep Sea Freight Transportation	Establishments	30	39	40	33	33	35	36	32	33
	Employees	764	860	742	ds	790	639	607	615	713
	Payroll	63,408	71,515	65,818	44,902	55,106	47,119	47,952	59,864	77,406
Deep Sea Passenger Transportation	Establishments	1	1	NA	2	2	2	2	NA	NA
	Employees	ds	ds	NA	ds	ds	ds	ds	NA	NA
	Payroll	ds	ds	NA	ds	ds	ds	ds	NA	NA
Coastal and Great Lakes Freight Transportation	Establishments	48	48	39	42	48	48	49	45	46
	Employees	1,909	1,764	1,814	2,253	2,227	2,058	2,115	1,574	1,803
	Payroll	161,080	177,549	174,686	207,831	215,950	208,286	199,415	129,590	204,370
Port and Harbor Operations	Establishments	29	26	37	27	25	25	26	29	31
	Employees	ds	439	1,381	630	387	395	572	688	780
	Payroll	18,627	18,842	55,470	25,229	13,544	16,436	17,603	29,801	34,558
Marine Cargo Handling	Establishments	54	55	42	48	53	56	57	56	53
	Employees	5,262	5,259	4,373	6,390	7,451	8,179	6,687	5,030	6,608
	Payroll	166,877	153,360	130,817	272,286	327,690	324,552	280,303	210,606	219,894
Navigational Services to Shipping	Establishments	87	91	91	89	93	91	80	81	85
	Employees	1,606	1,448	1,676	1,485	1,588	1,415	1,430	1,187	1,573
	Payroll	132,283	113,444	124,500	130,572	139,259	144,090	135,341	110,529	131,360
Marinas	Establishments	148	144	132	124	128	138	137	134	133
	Employees	1,198	1,233	1,169	1,258	1,222	1,209	1,226	1,289	2,022
	Payroll	33,968	34,928	34,711	36,461	36,776	37,054	39,658	38,913	74,614

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ greater than 1 indicates that more commercial fishing occurs in this state than the national average. A CFLQ less than 1 indicates that less commercial fishing occurs in this state than the national average.
[2] ds = Data are suppressed.
[3] NA = Not applicable.

Data Sources

Captain of a local charter boat at the helm looking for fish aggregations (Kodiak, Alaska).
Photo: NOAA Fisheries/Noelle Olsen

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- Excess Harvesting Capacity in U.S. Fisheries, A Report to Congress. April 28, 2008. National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). https://www.st.nmfs.noaa.gov/spo/SPO/tm/spo93.pdf
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- Caribbean Fishery Management Council. www.caribbeanfmc.com
- Gulf of Mexico Fishery Management Council. www.gulfcouncil.org
- Mid-Atlantic Fishery Management Council. www.mafmc.org/
- New England Fishery Management Council. www.nefmc.org/
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- Alaska Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). Obtained December 5, 2017. https://www.fisheries.noaa.gov/region/alaska

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Additional information:

- "NOAA Fisheries Economics & Social Sciences Program." Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). https://www.fisheries.noaa.gov/topic/socioeconomics
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- Texas Parks & Wildlife Department. Obtained August 14, 2018. https://tpwd.texas.gov/
- Louisiana Department of Wildlife and Fisheries. Obtained May 29, 2018. http://www.wlf.louisiana.gov/

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- Lovell, J. Sabrina, James Hilger, Scott Steinback, and Clifford Hutt. 2016. The Economic Contribution of Marine Angler Expenditures on Durable Goods in the United States, 2014. U.S. Dept. of Commerce. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-165, 72 p. https://spo.nmfs.noaa.gov/content/tech-memo/economic-contribution-marine-angler-expenditures-durable-goods-united-states-2014
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Bigeye tuna landed by a pelagic longline vessel for sale at the Pier 38 fish auction in Honolulu, Hawai'i.
Photo: NOAA Fisheries/Cliff Hutt

Selected publications by NOAA Fisheries Economics and Social Sciences Program staff are grouped by geographic region of focus and then organized under the following categories:

- Climate Change Research
- Coastal and Marine Recreation Research
- Commercial Fisheries Economics Research
- Spatial Analysis and Marine Protected Areas Research
- Ocean Governance, Policy and Management Research
- Marine Protected Areas Research
- Other Marine Environmental Research
- Ecosystem-Based Management Research
- Recreational Fisheries Economics Research
- Habitat Economics Research
- Seafood Marketing and Trade Research
- Sociocultural Fisheries Research
- U.S. Territories and International Fisheries Research
- Protected Resources Economics Research

UNITED STATES

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Resources

Crab pot fishing in the saltwater creek behind Chincoteague National Wildlife Refuge (Chincoteague, Virginia).
Photo: NOAA Fisheries/Emily Markowitz

UNITED STATES

Federal Agencies

- Office of Science and Technology, NOAA Fisheries | www.fisheries.noaa.gov/about/office-science-and-technology
- Marine Recreational Information Program | www.fisheries.noaa.gov/topic/recreational-fishing-data
- Office of Marine Conservation, Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State | www.state.gov/bureaus-offices/under-secretary-for-economic-growth-energy-and-the-environment/bureau-of-oceans-and-international-environmental-and-scientific-affairs/office-of-marine-conservation/

NORTH PACIFIC

Federal Agencies

- Alaska Fisheries Science Center, NOAA Fisheries | www.fisheries.noaa.gov/about/alaska-fisheries-science-center
- Alaska Regional Office, NOAA Fisheries | www.fisheries.noaa.gov/about/alaska-regional-office
- Alaska Region, U.S. Fish and Wildlife Service | www.fws.gov/alaska/
- District 17, U.S. Coast Guard | www.pacificarea.uscg.mil/Our-Organization/District-17/

State Agencies

- Alaska Department of Fish and Game | www.adfg.state.ak.us

Councils and Commissions

- North Pacific Fishery Management Council | www.npfmc.org
- Pacific States Marine Fisheries Commission | www.psmfc.org
- Fisheries Economics Data Program Pacific States Marine Fisheries Commission | www.psmfc.org/efin
- International Pacific Halibut Commission | www.iphc.int

PACIFIC

Federal Agencies

- Northwest Fisheries Science Center, NOAA Fisheries | www.fisheries.noaa.gov/about/northwest-fisheries-science-center
- West Coast Regional Office, NOAA Fisheries | www.fisheries.noaa.gov/about/west-coast-regional-office
- Southwest Fisheries Science Center | www.fisheries.noaa.gov/about/southwest-fisheries-science-center
- Pacific Region, U.S. Fish and Wildlife Service | www.fws.gov/pacific
- California and Nevada, U.S. Fish and Wildlife Service | www.fws.gov/cno
- District 13, U.S. Coast Guard | www.pacificarea.uscg.mil/Our-Organization/District-13/

State Agencies

- California Department of Fish and Game | www.wildlife.ca.gov
- Oregon Department of Fish and Wildlife | www.dfw.state.or.us
- Washington Department of Fish and Wildlife | http://wdfw.wa.gov/

Councils and Commissions

- Pacific Fishery Management Council | www.pcouncil.org
- Pacific States Marine Fisheries Commission | www.psmfc.org
- Fisheries Economics Data Program - Pacific States Marine Fisheries Commission | www.psmfc.org/efin
- International Pacific Halibut Commission | www.iphc.int

WESTERN PACIFIC

Federal Agencies

- Pacific Islands Fisheries Science Center, NOAA Fisheries | www.fisheries.noaa.gov/about/pacific-islands-fisheries-science-center
- Pacific Islands Regional Office, NOAA Fisheries | www.fisheries.noaa.gov/about/pacific-islands-regional-office
- Pacific Region, U.S. Fish and Wildlife Service | www.fws.gov/pacific
- District 14, U.S. Coast Guard | www.pacificarea.uscg.mil/Our-Organization/District-14/

State Agencies

- Hawai'i Department of Land and Natural Resources | www.dlnr.hawaii.gov/
- Guam Office of the Governor | http://governor.guam.gov/
- Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands | http://www.dfw.gov.mp/Monument_Page.html

Councils and Commissions

- Western Pacific Fishery Management Council | www.wpcouncil.org

NEW ENGLAND

Federal Agencies

- Northeast Fisheries Science Center, NOAA Fisheries | www.fisheries.noaa.gov/about/northeast-fisheries-science-center
- Greater Atlantic Regional Fisheries Office, NOAA Fisheries | www.fisheries.noaa.gov/about/greater-atlantic-regional-fisheries-office
- Northeast Region, U.S. Fish and Wildlife Service | www.fws.gov/northeast
- District 1, U.S. Coast Guard | www.atlanticarea.uscg.mil/Our-Organization/District-1/

State Agencies

- Maine Department of Marine Resources | www.maine.gov/dmr/
- Rhode Island Department of Environmental Management | www.dem.ri.gov
- Massachusetts Division of Marine Fisheries | www.mass.gov/orgs/division-of-marine-fisheries
- Connecticut Department of Environmental Protection | www.ct.gov/deep/
- New Hampshire Fish and Game Department | www.wildlife.state.nh.us

Councils and Commissions

- New England Fishery Management Council | www.nefmc.org
- Atlantic States Marine Fisheries Commission | www.asmfc.org

MID-ATLANTIC

Federal Agencies

- Northeast Fisheries Science Center, NOAA Fisheries | www.fisheries.noaa.gov/about/northeast-fisheries-science-center
- Greater Atlantic Regional Fisheries Office, NOAA Fisheries | www.fisheries.noaa.gov/about/greater-atlantic-regional-fisheries-office
- Northeast Region, U.S. Fish and Wildlife Service | www.fws.gov/northeast
- District 5, U.S. Coast Guard | www.atlanticarea.uscg.mil/Our-Organization/District-5/

State Agencies

- Delaware Division of Fish and Wildlife | https://dnrec.alpha.delaware.gov/fish-wildlife/
- Pennsylvania Fish and Boat Commission | www.fishandboat.com/
- Fisheries and Boating Service, Maryland Department of Natural Resources | www.dnr.state.md.us/fisheries
- New Jersey Division of Fish and Wildlife | www.state.nj.us/dep/fgw
- Marine Resources Councils and Boards Bureau of Marine Resources, New York Department of Environmental Conservation | www.dec.ny.gov/about/568.html
- Virginia Marine Resources Commission | www.dnr.maryland.gov/fisheries

Councils and Commissions

- Mid-Atlantic Fishery Management Council | www.mafmc.org
- Atlantic States Marine Fisheries Commission | www.asmfc.org

SOUTH ATLANTIC

Federal Agencies

- Southeast Fisheries Science Center, NOAA Fisheries | www.fisheries.noaa.gov/about/southeast-fisheries-science-center
- Southeast Regional Office, NOAA Fisheries | www.fisheries.noaa.gov/about/southeast-regional-office
- Southeast Region, U.S. Fish and Wildlife Service | www.fws.gov/southeast
- Southwest Region, U.S. Fish and Wildlife Service | www.fws.gov/southwest
- District 7, U.S. Coast Guard | www.atlanticarea.uscg.mil/Our-Organization/District-7/

State Agencies

- Florida Fish and Wildlife Conservation Commission | www.myfwc.com/
- Coastal Resources Division, Georgia Department of Natural Resources | www.coastalgadnr.org/
- Division of Marine Fisheries, North Carolina Department of Environment and Natural Resources | http://portal.ncdenr.org/web/mf/
- Marine Resources Division, South Carolina Department of Natural Resources | www.dnr.sc.gov

Councils and Commissions

- South Atlantic Fishery Management Council | www.safmc.net
- Atlantic States Marine Fisheries Commission | www.asmfc.org

GULF OF MEXICO

Federal Agencies

- Southeast Fisheries Science Center, NOAA Fisheries | www.fisheries.noaa.gov/about/southeast-fisheries-science-center
- Southeast Regional Office, NOAA Fisheries | www.fisheries.noaa.gov/about/southeast-regional-office
- Southeast Region, U.S. Fish and Wildlife Service | www.fws.gov/southeast
- Southwest Region, U.S. Fish and Wildlife Service | www.fws.gov/southwest
- District 8, U.S. Coast Guard | www.atlanticarea.uscg.mil/Our-Organization/District-8/

State Agencies

- Florida Fish and Wildlife Conservation Commission | www.myfwc.com/
- Marine Resources Division, Alabama Department of Conservation and Natural Resources | www.outdooralabama.com
- Mississippi Department of Marine Resources | www.dmr.ms.gov/
- Louisiana Department of Wildlife and Fisheries | www.wlf.louisiana.gov/
- Texas Parks and Wildlife Department | www.tpwd.texas.gov/

Councils and Commissions

- Gulf of Mexico Fishery Management Council | www.gulfcouncil.org
- Gulf States Marine Fisheries Commission | www.gsmfc.org

PROFESSIONAL ORGANIZATIONS

- North American Association of Fisheries Economists | https://naafe.oregonstate.edu/
- International Institute of Fisheries Economics and Trade | https://iifet.oregonstate.edu/

OTHER ORGANIZATIONS AND INFORMATION

- Organisation for Economic Co-operation and Development | www.oecd.org/
- Fisheries and Aquaculture Department, Food and Agriculture Organization of the United Nations | www.fao.org/fishery/capture/en
- Marine Stewardship Council | www.msc.org

Glossary

Commercial fishermen catch black sea bass (and trigger fish) from pot traps.
Photo: NOAA Fisheries/Noelle Olsen

Angler[1] — A person catching fish with no intent to sell, including people releasing the catch. Also known as a recreational fisherman.

Annual Payroll[2] — Includes all forms of compensation such as salaries, wages, reported tips, commissions, bonuses, vacation allowances, sick-leave pay, employee contributions to qualified pension plans, and the value of taxable fringe benefits. For corporations, it includes amounts paid to officers and executives; for unincorporated businesses, it does not include profit or other compensation of proprietors or partners. Payroll is reported before deductions for Social Security, income tax, insurance, union dues, etc.

Annual Receipts[3] — Includes gross receipts, sales, commissions, and income from trades and businesses, as reported on annual business income tax returns. Business income consists of all payments received for services rendered by non-employer businesses, such as payments received as independent agents and contractors. The composition of non-employer receipts may differ from receipts data published for employer establishments. For example, for wholesale agents and brokers without payroll (non-employers), the receipts item contains commissions or earnings. In contrast, for wholesale agents and brokers with payroll (employers), the sales and receipts item published in the Economic Census represents the value of the goods involved in the transactions.

Buyback Program — A management tool available to fishery managers intended to ease fishing-related pressure on marine resources. Fishing vessels are purchased by the government or by the fishing industry itself. Then they are removed from a specific fishery where fish stocks or stock complexes are considered overfished or subject to overfishing.

Bycatch[1] — Species other than the primary target species that are caught incidental to the harvest of the primary species. Bycatch may be retained or discarded; discards may occur for regulatory or economic reasons.

Catch[1] — 1. To undertake any activity that results in taking fish out of its environment dead or alive, or to bring fish on board a vessel dead or alive; 2. The total number (or weight) of fish caught by fishing operations. Catch should include all fish killed by the act of fishing, not just those landed; For this report, recreational catch refers to the total number of individual fish released (thrown back into the sea) and harvested (not thrown back into the sea) by recreational fishermen (anglers).

Catch Share Program[4] — This is a generic term used to describe a fishery management program that allocates a specific portion of the total fishery catch to individuals, cooperatives, communities, or other entities, including sectors. The term encompasses more specific programs defined in legislation such as Limited Access Privilege Programs (LAPPs) and Individual Fishing Quotas (IFQs). Note that a catch share allocated to a sector is different from a general sectoral allocation or distribution to an entire segment of a fishery (such as a recreational sector allocation or a longline gear sector allocation). The two differ because the recipient of the catch share is responsible for terminating fishing activity when their specific share is reached.

Coastal County[5] — Counties with borders that are within 25 miles of the coast are considered coastal. All counties in Rhode Island, Connecticut, Delaware, and Florida are considered coastal.

Coastal County Angler — For this report, a coastal county angler refers to a recreational fisherman who lives within a given state and within a coastal county of that state.

Commercial Fisheries — In this report, commercial fisheries refer to fishing operations that sell their catch for profit. The term does not include subsistence fishermen or saltwater anglers who fish for sport. It also excludes the for-hire sector, which earns its revenue from selling recreational fishing trips to saltwater anglers. The commercial fisheries section reports on economic impacts, landings revenue, landings, and ex-vessel prices of key species/species groups.

Commercial Fishing Location Quotient (CFLQ)[6] — For this report, the CFLQ is calculated as the ratio of a state's distribution of employment in commercial fishing industries compared with the distribution of commercial fishing industries in the U.S. The CFLQ is calculated using the "Location Quotient Calculator" provided by the Bureau of Labor Statistics, U.S. Department of Labor.

Community Development Quota Program (CDQ)[1] — A program in western Alaska under which a percentage of the total allowable catch (TAC) of Bering Sea commercial fisheries is allocated to specific communities. Communities eligible for this program must be located within 50 miles of the Bering Sea coast or on an island within the Bering Sea; meet criteria established by the State of Alaska; be a village certified by the Secretary of the Interior pursuant to the Alaska Native Claims Settlement Act; and consist of residents who conduct more than half of their current commercial or subsistence fishing in the Bering Sea or waters surrounding the Aleutian Islands. Currently 7.5 percent of the TAC in the pollock, halibut, sablefish, crab and groundfish fisheries is allocated to the CDQ Program.

Dedicated Access Privileges (DAPs)[7] — As defined by the U.S. Commission on Ocean Policy, a DAP program assigns an individual or other entity access to a predetermined portion of the annual catch in a particular fishery. In some cases, the privilege is transferable and may be bought and sold, creating a market. The term encompasses a range of tools, including access privileges assigned to individuals (that is, individual transferable quotas), and to groups or communities (for example, community development quotas, cooperatives, and area-based quotas). DAP is often synonymous with Limited Access Privilege Programs (see "Limited Access Privilege Program") and are sometimes referred to as rights-based management. However, "rights-based management" implies granting an individual the "right" to fish. Apart from certain tribes, U.S. fishermen do not have inalienable rights to fish because the fishery resources of the U.S. belong to all people of the U.S. Under current law, fishermen are granted a "privilege" to fish, subject to certain conditions.

Discards[1] — To release or return a fish or other species to the sea, dead or alive, whether or not such fish or other species are brought fully on board a fishing vessel. Estimates of discards can be made in a variety of ways, including samples from observers and logbook records. Fish (or parts of fish) can be discarded for a variety of reasons such as having physical damage, being a non-target species for the trip, and compliance with management regulations like minimum size limits or quotas.

Durable Equipment Expenditures or Durable Goods Expenditures[8] — For this report, this term refers to expenses related to equipment used for recreational fishing activities. These expenses include the purchase of semi-durable goods (e.g., tackle, rods, reels, line); durable goods (e.g., motor boats and accessories, non-motorized boats, boating electronics, mooring, boat storage, boat insurance, vehicles, second homes); and angling accessories and multi-purpose items (e.g., magazines, club dues, saltwater angling-specific clothing, camping gear).

Ecolabel[9] — In fisheries, ecolabelling schemes entitle a fishery product to bear a distinctive logo or statement that certifies that the fish has been harvested in compliance with specified conservation and sustainability standards. The logo or statement is intended to facilitate informed decisions by purchasers whose choices may promote and stimulate the sustainable use of fishery resources.

Economic Impact Model[8,10,11] — Economic impact models capture how sales in a sector generate economic impacts directly in the sector in which the sale was made. The sales then ripple throughout the state and national economies as each dollar spent generates additional sales by other firms and consumers. The NOAA Fisheries Commercial Fishing & Seafood Industry Input/Output Model uses an IMPLAN platform to estimate the economic impacts associated with the harvesting of fish by U.S. commercial fishermen and other major components of the U.S. seafood industry. As used here, the term fish refers to the entire range of finfish, shellfish, and other life (that is, sea urchins, seaweed, kelp and worms) from marine and freshwaters that are included in the landings data maintained by the National Marine Fisheries Service. The NOAA Fisheries Recreational Economic Impact Model, which also uses an IMPLAN platform, estimates the economic impacts generated by expenditures made by marine (saltwater) anglers.

Economic Impacts[8,10,11] — For this report, the economic impacts of the commercial fishing sector and seafood industry refer to the employment (full-time and part-time jobs), personal income, and output (sales by U.S. businesses) generated by the commercial harvest sector and other major components of the U.S. seafood industry. These components include processors and dealers, wholesalers and distributors, grocers, and restaurants. Economic impacts of recreational fishing activities refer to the amount of sales generated, the number of jobs supported, labor income, and the contribution to gross domestic product (GDP) by state (also known as value-added impacts) from expenditures related to recreational fishing.

Effort — For this report, effort refers to the number of angler trips taken by recreational fishermen (anglers). An angler trip is defined as any part of a single day (24 hours) of marine recreational fishing.

Employee Compensation[12] — This is related to gross domestic product (GDP) by state and is an estimate of the sum of employee wages and salaries and supplements to wages and salaries. Wages and salaries are measured on an accrual, or "when earned" basis, which may be different from the measure of wages and salaries measured on a disbursement, or "when paid" basis. Wages and salaries and supplements of federal military and civilian government employees stationed abroad are excluded from the measure of GDP by state.

Employer Establishments[13] — Businesses with payroll and paid employees with a single physical location at which business is conducted or services or industrial operations are performed. An employee establishment is not necessarily identical to a company or enterprise, which may consist of one or more establishments. When two or more activities are carried on at a single location under a single ownership, all activities generally are grouped together as a single establishment. The entire establishment is classified on the basis of its major activity, and all data are included in that classification.

Employment Impacts — Employment is specified on the basis of full-time and part-time jobs supported directly or indirectly by the purchases made by anglers or by the commercial harvest and seafood sector economic activity. This impact is measured in the number of full and part-time jobs.

Endangered Species[14] — As defined by the Endangered Species Act (ESA), an endangered species is any species which is in danger of extinction throughout all or a significant portion of its range. See also "Threatened Species."

Endangered Species Act (ESA)[14] — The ESA was signed on December 28, 1973 and provides for the conservation of species that are endangered or threatened throughout all or a significant portion of their range, and the conservation of the ecosystems on which they depend. The ESA replaced the Endangered Species Conservation Act of 1969. Congress has amended the ESA several times.

Exclusive Economic Zone (EEZ)[1] — The EEZ is the area that extends 200 nautical miles from the seaward boundary of the coastal states. The seaward boundary for most states is 3 nautical miles with the exceptions of Texas, Puerto Rico, and the Gulf Coast of Florida, which is 9 nautical miles. The U.S. claims and exercises sovereign rights and exclusive fishery management authority over all fish and continental shelf resources through this 200-nautical-mile boundary.

Expenditures[8,11] — For this report, expenditures are related to recreational fishing activities and described as being one of two types: 1) expenditures related to a specific fishing trip; or 2) durable equipment expenditures.

Fish Stock[1] — A fish stock refers to the living resources in the community or population from which catches are taken in a fishery. The term "fish stock" usually implies that the particular population is more or less isolated from other stocks of the same species and hence self-sustaining. In a particular fishery, the fish stock may be one or several species of fish. Here, it also includes commercial invertebrates and plants.

Fishery Management Council (FMC) or Regional Fishery Management Council[15] — A regional fisheries management body established by the Magnuson-Stevens Act to manage fishery resources in eight designated regions of the United States.

Fishery Management Plan (FMP)[15] — 1. A document prepared under supervision of the appropriate fishery management council (FMC) for the management of stocks of fish judged to require management. The plan generally must be formally approved. An FMP includes data, analyses, and management measures; 2. A plan containing conservation and management measures for fishery resources, and other provisions required by the Magnuson-Stevens Act, developed by fishery management councils or the Secretary of Commerce.

Fishing Cooperatives[15] — A market-based fisheries management tool where access to fisheries resources is limited to a specific group of fishermen. See also "Catch Share Program."

Fishing Day — For this report, a fishing day refers to a partial or full day spent in recreational fishing. This term is used in the Alaska recreational fishing tables.

Fishing Effort[1] — The amount of fishing gear of a specific type used on the fishing grounds over a given unit of time. For example, hours trawled per day, number of hooks set per day, or number of hauls of a beach seine per day. When two or more kinds of gear are used, the respective efforts must be adjusted to some standard type before being added. For recreational fishing activities, fishing effort refers to the number of fishing trips made by recreational anglers.

Fishing Mode — For this report, fishing mode refers to the type of recreational fishing a recreational fisherman (angler) engages in, such as fishing from shore, a private or rental boat, or a for-hire boat.

Fishing Trip — For this report, a fishing trip is defined as an angler trip. An angler trip is defined as any part of a single day (24 hours) of marine recreational fishing. Fishing trips are classified as occurring in one of three fishing modes: 1) a shore-based fishing trip; 2) by a private or rental boat; or 3) on a for-hire fishing boat.

For-Hire Mode — For this report, this fishing mode refers to trips taken by recreational fishermen (anglers) on a party (also referred to as a head boat) or charter boat. In the Gulf and South Atlantic, for-hire mode does not include head boats.

Gross Domestic Product (GDP) by State or Gross State Product (GSP)[12] — Previously known as the Gross State Product, the GDP by state is the value added in production by the labor and capital located in a state. GDP for a state is derived as the sum of the GDP originating in all industries in the state.

Harvest[1] — The total number or weight of fish caught and kept from an area over a period of time. Note that landings, catch, and harvest are different. However, in Hawai`i and the Gulf states, recreational harvest includes fish thrown back dead. See also "Catch" and "Release."

Income Impacts[8,10,11] — Income impacts include personal income (wages and salaries) and proprietors' income (income from self-employment).

Individual Fishing Quota (IFQ)[1] — A type of limited entry; an allocation to an individual (a person or a legal entity, for example, a vessel owner or company) of a right (privilege) to harvest a certain amount of fish in a certain period of time. It is also often expressed as an individual share of an aggregate quota, or total allowable catch (TAC). See also "Individual Transferable Quota" and "Catch Share Program."

Individual Transferable Quota (ITQ)[1] — A type of individual fishing quota (IFQ) allocated to individual fishermen or vessel owners that can be transferred (sold or leased) to others. See also "Individual Fishing Quota."

Industry Sector — For this report, fishing- and marine-related industries were combined into industry sectors. Two industry sectors were included in this report: 1) seafood sales and processing; and 2) transport, support, and marine operations. Fishing and marine-related industries were chosen from the County Business Patterns Data Series based on data availability and perceived relevance to fishing or marine activities. These industries were then combined into one of these two industry sectors.

Key Species or Species Groups — For this report, up to 10 species or species groups were chosen as "key" species or species groups due to their regional importance to commercial and recreational fisheries. The regional importance of these key species or species groups was chosen based on their economic and/or historical or cultural significance to a state or region.

Landing Revenues — The dollar value of commercial fisheries landings.

Landings[1] — 1. The number or poundage of fish unloaded by commercial fishermen or brought to shore by recreational fishermen for personal use. Landings are reported at the locations at which fish are brought to shore; 2. The part of the catch that is selected and kept during the sorting procedures on board vessels and successively discharged at dockside.

License Limitation Program or Limited Entry Program[1] — A management tool available to fishery managers where the number of commercial fishermen or vessels licensed to participate in a fishery is legally restricted. A management agency often uses this management tool to limit entry into a fishery.

Limited Access Privilege Program (LAPP) or Limited Access Privilege System[15] — As defined in the Magnuson-Stevens Act, LAPPs limit participation in a fishery to those satisfying certain eligibility criteria or requirements contained in a fishery management plan (FMP) or associated regulation. A limited access privilege is a federal permit, issued as part of a limited access system, to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch (TAC) of the fishery that may be received or held for exclusive use by a person. A LAPP includes an individual fishing quota (IFQ) or individual tradable quota (ITQ) but does not include community development quotas (CDQs). LAPPs are sometimes known as Dedicated Access Privileges (DAPs). However, unlike LAPPs, DAPs generally encompass CDQs as well as IFQs (see "Dedicated Access Privileges"). LAPPs are a type of catch share program. See also "Catch Share Program."

Limited Entry Program — Also known as a license limitation program; see "License Limitation Program."

Location Quotient[6] — Location Quotients (LQs) are ratios that allow an area's distribution of employment by industry to be compared to a reference or base area's distribution. The reference area is usually the U.S., but it can also be a state or metropolitan area. The reference or base industry is usually the all-industry total. LQs also allow areas to be easily compared with each other. If an LQ is equal to 1, then the industry has the same share of its area employment as it does in the reference area. An LQ greater than 1 indicates an industry with a greater share of the local area employment than in the reference area.

For example (assuming the U.S. as the reference area), Las Vegas will have an LQ greater than 1 in the Leisure and Hospitality industry, because this industry makes up a larger share of the Las Vegas employment total than it does for the country as a whole. LQs are calculated by first dividing local industry employment by the all-industry total of local employment. Next, reference area industry employment is divided by the all-industry total for the reference area. Finally, the local ratio is divided by the reference area ratio.

Magnuson-Stevens Fishery Conservation and Management Act or Magnuson-Stevens Act (MSA)[1] — Federal legislation responsible for establishing the Regional Fishery Management Councils (FMCs) and the mandatory and discretionary guidelines for federal fishery management plans (FMPs). This legislation was originally enacted in 1976 as the Fishery Management and Conservation Act. Its name was changed to the Magnuson Fishery Conservation and Management Act in 1980, and in 1996 it was renamed the Magnuson-Stevens Fishery Conservation and Management Act.

Market-based Management[15] — Market-based management is an umbrella term that encompasses approaches that provide economic incentives to protect fisheries from overharvest. These approaches contrast with conventional fisheries management approaches, such as buyback programs and license limitation programs (see "Buyback Program" and "License Limitation Program"). One example of a market-based management approach for fisheries is a limited access privilege program (LAPP; see "Limited Access Privilege Program") that includes an individual fishing quota. A LAPP provides individual fishermen an exclusive, market-based share of a harvest quota or total allowable catch (TAC) of a fishery.

Marine Coastal County — For this report, a marine coastal county is a coastal county that is adjacent to an ocean coastline. See also "Coastal County."

Marine Economy — For this report, the marine economy refers to the economic activity generated by fishing- and marine-related industries located in a coastal state. Fishing- and marine-related industries were chosen from industries defined in the County Business Patterns Data Series provided by the U.S. Census Bureau. Industries listed in this report were chosen based on that industry's direct contribution to fishing and marine activities, and whether data were available for that industry. Information such as the number of establishments, number of employees, and annual payroll for these fishing and marine-related industries was used to determine their relative levels of economic activity in a state. These industries were categorized into one of two industry sectors: 1) seafood sales and processing; and 2) transport, support, and marine operations. See also "Industry Sector."

Non-Coastal County Angler — For this report, a non-coastal county angler refers to a recreational fisherman who lives within a given state but not in a coastal county of that state.

Non-Employer Firms[3] — A non-employer business is one that has no paid employees, has annual business receipts of $1,000 or more ($1 or more in the construction industries), and is subject to federal income taxes. Most non-employers are self-employed individuals operating very small unincorporated businesses that may or may not be the owner's principal source of income.

Non-Resident Angler — For this report, a non-resident in the U.S. table refers to a recreational fisherman (angler) who resides outside the U.S.; a non-resident in the regional and state tables refers to an angler who did not reside in the state where they fished.

Out-of-State Angler — For this report, an out-of-state angler is a recreational fisherman (angler) who does not reside within a given coastal state.

Overcapacity[16] — When the harvesting capability within a given fishery exceeds the level of harvest allowed for that fishery.

Overcapitalization[9] — When the amount of harvesting capacity in a fishery exceeds the amount needed to harvest the desired amount of fish at least cost.

Overfished[1] — 1. An overfished stock or stock complex "whose size is sufficiently small that a change in management practices is required to achieve an appropriate level and rate of rebuilding." A stock or stock complex is considered overfished when its population size falls below the minimum stock size threshold (MSST). A rebuilding plan is required for stocks that are deemed overfished; 2. A stock is considered overfished when exploited beyond an explicit limit past which its abundance is considered "too low" to ensure safe reproduction. In many fisheries, the term is used when biomass has been estimated to be below a biological reference point that is used as the signpost defining an "overfished condition."

Overfishing[1] — 1. According to the National Standard Guidelines, "overfishing occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that jeopardizes the capacity of a stock or stock complex to produce maximum sustainable yield (MSY) on a continuing basis." Overfishing is occurring if the maximum fishing mortality threshold (MFMT) is exceeded for 1 year or more; 2. In general, the action of exerting fishing pressure (fishing intensity) beyond the agreed optimum level. A reduction of fishing pressure would, in the medium term, lead to an increase in the total catch.

Protected Species[17] — Refers to any species that is protected by either the Endangered Species Act (ESA) or the Marine Mammal Protection Act (MMPA), and that is under the jurisdiction of NOAA Fisheries. This total includes all threatened, endangered, and candidate species, as well as all cetaceans and pinnipeds, excluding walruses.

Recreational Fisheries — Recreational fishing refers to fishing for leisure rather than to sell fish (commercial fishing) or for subsistence. The economic contributions or impacts of recreational fishing activities in the United States is based on spending by recreational anglers.

Regional Fishery Management Council or Fishery Management Council (FMC)[15] — The Magnuson-Stevens Act established eight Regional FMCs around the United States. Each council consists of voting and non-voting members who represent various federal, state, and tribal governments; fishing industry groups (commercial and/or recreational); and non-fishing groups (such as environmental organizations and academic institutions). Each council is tasked with creating fishery management plans for important fisheries within their regions.

Release — For this report, release refers to the number of individual fish caught by a recreational fisherman (angler) that are then returned to the sea (dead or alive). In Hawai`i and the Atlantic and Gulf states, release does not include fish returned to the sea that are dead. See also "Catch" and "Harvest."

Resident — For this report, a resident in the U.S. table refers to a recreational fisherman (angler) who resides inside the U.S.; a resident in the regional and state tables refers to an angler who resides in the state where they fished.

Sales Impacts[8,10,11] — Sales impacts refer to the gross value of all sales by regional businesses affected by an activity, such as recreational or commercial fishing. For example, it includes both the direct sales made by the angler (commercial fisherman) and sales made between businesses and households resulting from that original sale by the angler (commercial fisherman).

Sector Allocation Program[17] — A fisheries management tool where a group of fishermen are allocated a quota or share of a total allowable catch (TAC), in accordance with an approved plan. This program is considered a type of catch share program. See also "Catch Share Program."

Species[1] — A group of animals or plants having common characteristics that are able to breed together to produce fertile (capable of reproducing) offspring and maintain their "separateness" from other groups.

Species Group[1] — Group of species considered together because they are difficult to differentiate without detailed examination (very similar species), or because data for the separate species are not available (for example, in fishery statistics or commercial categories).

Threatened Species[14] — As defined by the Endangered Species Act (ESA), a threatened species is any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. See also "Endangered Species."

Total Annual Durable Expenditures — Total annual durable expenditures were estimated by multiplying mean durable expenditures by the estimated annual number of adult participants at the state level or the national level and adjusted by the Consumer Price Index to the current year.

Total Annual Trip Expenditures – Total annual trip expenditures are estimated at the state level by multiplying mean trip expenditures by the estimated number of adult trips in each trip mode (for-hire, private boat, and shore) and adjusted by the Consumer Price Index to the current year. The trip expenditures at the national level is the sum of state trip expenditures in each mode.

Trip Expenditures — For this report, trip expenditures refer to expenses incurred by recreational fishermen (anglers) on a fishing trip. Trip expenditures include expenditures made by residents (individuals who reside in a coastal or non-coastal county within a given state; a U.S. resident) and non-residents (individuals who do not reside within the United States).

Value-Added Impacts[8,10,11] — Value-Added impacts refer to the contribution made to the gross domestic product in a region from commercial fishing landings and recreational fishing expenditures.

GLOSSARY NOTES

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Recreational anglers surf fishing in Matlacha, Florida.
Photo: NOAA Fisheries/Kristy Wallmo