

# Fisheries Economics of the United States 2020

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-236  
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Front cover: A recreational fisherman catches bluefish with his dog. Photo: Paula Prior

Inside cover: Commercial crab pots in Unalaska, Alaska. Photo: Mark Carls

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# Fisheries Economics of the United States 2020

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-236 FEBRUARY 2023



### **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

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## 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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### Or online at:

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

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Fisherman cleaning and filleting a fresh caught ono (wahoo).  
Photo: NOAA Fisheries

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# Preface

## FISHERIES ECONOMICS OF THE UNITED STATES, 2020

Fisheries Economics of the United States, 2020, is the fifteenth 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.

This year's report covers the years 2011 to 2020 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 catch 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 Wildlife; 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, Ben Fissel, 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.

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# 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<sup>1</sup>

#### 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

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

#### Landings Revenue

The price that fishermen are paid for their catch.

#### 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?

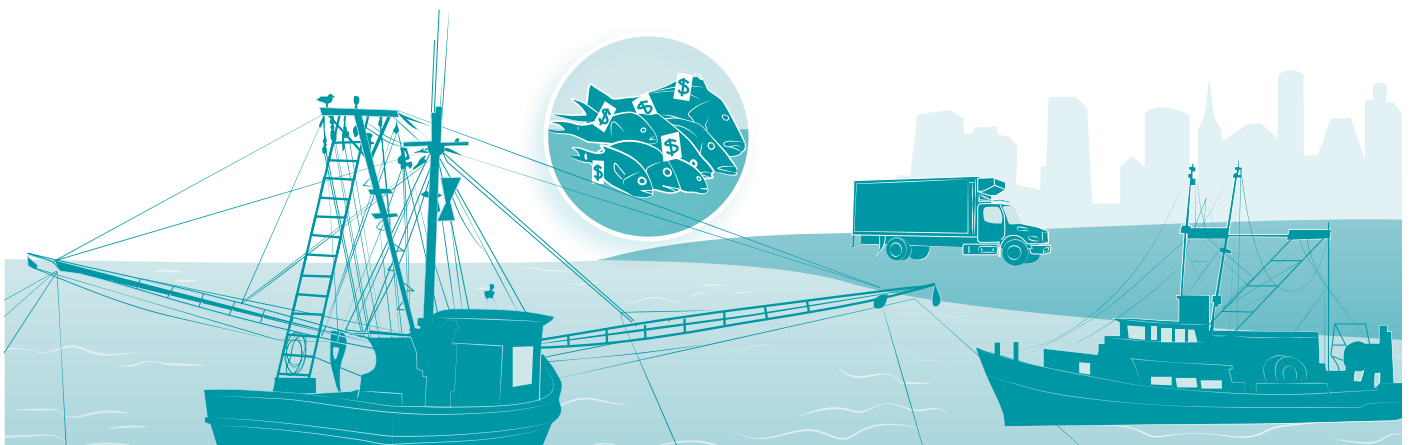
Fish can be caught using a variety of gear, including potts and traps, trawls and seines, gillnets, dredges, and hooks and lines.

### 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.



<sup>1</sup> For full definitions, see the [Glossary](#) section in 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 of 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?

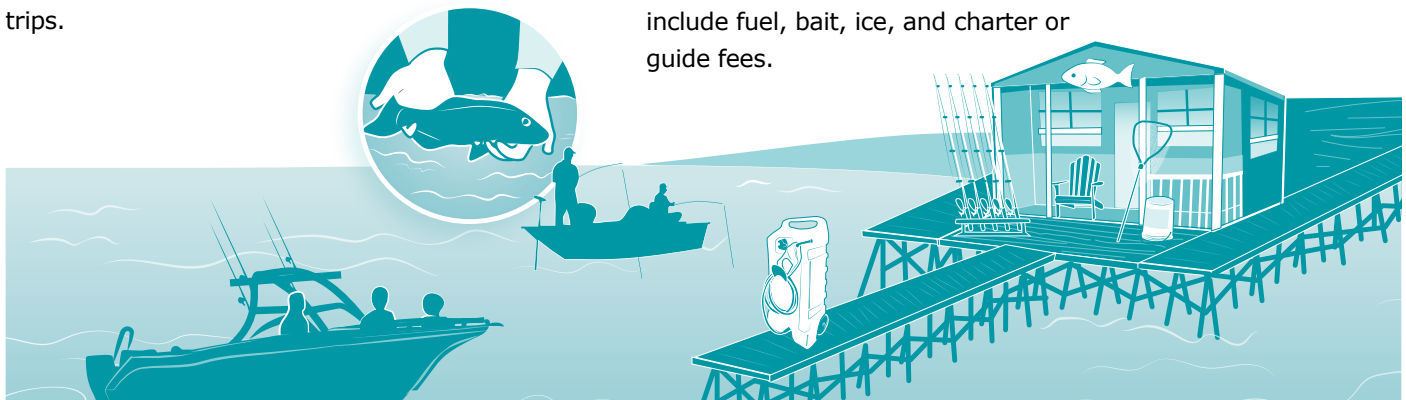
When anglers participate in fishing activities, they support sales and employment in recreational fishing and other types of businesses. Anglers buy fishing equipment from bait and tackle shops, rent or buy boats, or pay to have others take them on charter boats to fish. They may also pay for food and 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.



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# 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?

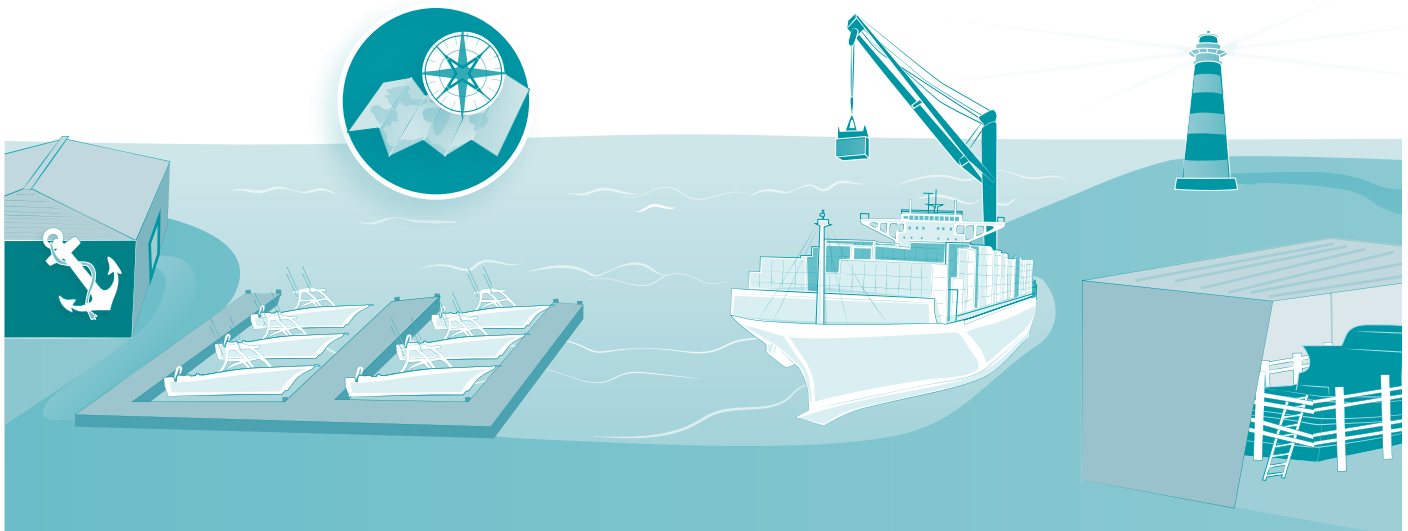
Yes, commercial and recreational fisheries contribute to the overall marine economy.

### What marine economy sectors, featured in the report, are related to commercial and recreational fisheries?

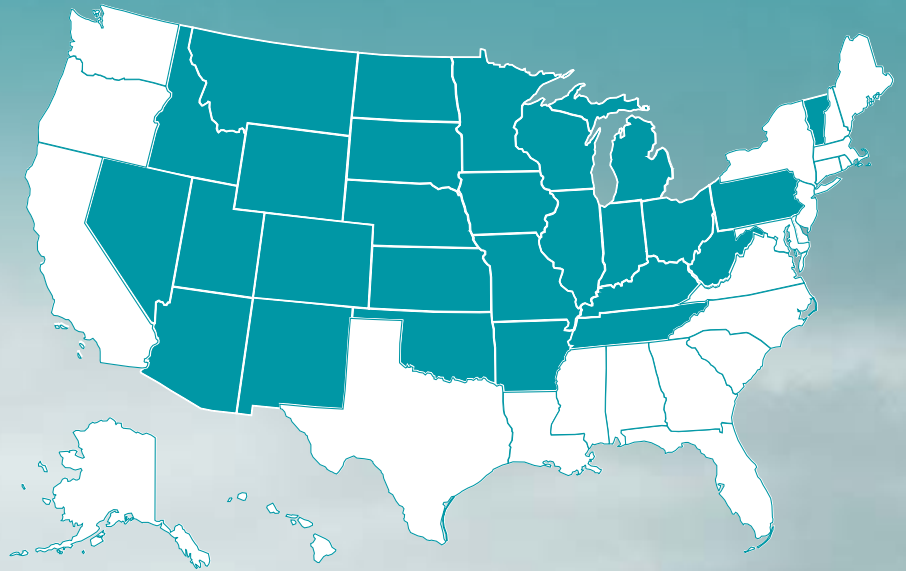
The seafood product preparation & packaging, wholesale, and retail seafood sales sectors are major parts of the commercial fishing industry. The Marinas, Navigational Services, Port & Harbor operations, and Ship & Boat Building sectors provide goods and services used in both commercial and recreational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



Commercial squid boats in Pacific Grove, California.  
Photo: NOAA Fisheries/Rosemary Kosaka

## 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 460 fish stocks and stock complexes.<sup>1</sup> 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 323 of the 460 stocks and stock complexes; the overfished status of 251 stocks and stock complexes is known. At the end of 2020, there were 26 stocks on the overfishing list (or 8% of stocks with known overfishing status) and 49 stocks on the overfished list (or 20% of stocks with known status).<sup>2</sup> Since 2000, 47 stocks have been rebuilt (unchanged from 2019).

## COVID-19 Impacts on the Seafood Sector and For-Hire Operations

The COVID-19 pandemic caused large scale disruption to the U.S. economy and global markets in 2020. In a recent study of the effects of COVID-19 on the seafood industry (commercial harvesters, aquaculture, seafood dealers and processors) and for-hire fishing sector in 2020, NOAA Fisheries documented that the impacts to these sectors were immediate, more severe and more long-lasting than those incurred in most other sectors of the economy.<sup>3</sup> An abbreviated list of key findings from this study are listed below.

- The for-hire sector experienced an 18% decrease in trips during 2020 relative to the baseline period. The for-hire sectors in Alaska and Hawaii, which rely heavily on non-resident tourists for a large share of their customers, were the hardest hit, experiencing a 51% and 72% decrease, respectively, in angler trips relative to the five-year baseline. Trip impacts in other regions ranged from 5% (Southeast) to 33% (Southwest/California).
- Overall, commercial fishing landings revenue declined 15% in 2020 (-19% in real terms, after adjusting for inflation) relative to the five-year baseline (2015–2019). In real terms, landings revenue declined the most in Alaska (-20%), the Pacific Region (-25%), and Hawaii (-30%). The New England Region (-18%), South Atlantic (-10%) and the Gulf of Mexico Region (-17%) also experienced double digit declines relative to the baseline. Landings revenue in the Mid-Atlantic Region declined 5% relative to the baseline. Depressed market conditions existed in all regions, with high-value products and seafood exports bearing the brunt of these losses, particularly during the initial months of the pandemic.
- To better understand the impact of COVID-19 relative to other ongoing economic trends and seasonal fluctuations during 2020, for the first time, NOAA Fisheries conducted a large-scale sectoral assessment of the seafood industry. This assessment used an approach that mirrors the approach economists use to assess the status of the U.S. economy, i.e., whether it is experiencing a recession, an economic recovery, etc.

<sup>1</sup> 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.

<sup>2</sup> NOAA Fisheries. 2021. Status of Stocks 2020. Office of Sustainable Fisheries. [Available at <https://www.fisheries.noaa.gov/national/sustainable-fisheries/status-stocks-2020>]

<sup>3</sup> NMFS. 2021. U.S. Seafood Industry and For-hire Sector Impacts from COVID-19: 2020 in Perspective. NOAA Tech. Memo. NMFS-SPO-221, 88 p. Note that the landings revenue and for-hire angler trip statistics cited here have been updated to reflect the more recent data used in this report.

The analysis identified a significant and sustained contraction in the commercial fishing sector beginning from the first quarter of 2019 (2019 Q1) through the second quarter of 2020 (2020 Q2). Seasonally adjusted quarterly total U.S. ex-vessel revenue fell by 27% over this period, from a peak of \$1.3 billion to a low of \$953 million.

The seafood dealer/processor sector also experienced a sustained contraction but it was of shorter duration: beginning 2019 Q3 through 2020 Q2, this sector sustained a decline in value added of \$598 million, a 13.47% decline. Seafood imports helped to cushion the impact of the economic downturn in the domestic harvest sector, albeit in states with limited seafood imports such as Alaska. Impacts to the harvest sector directly translated into losses to the seafood dealers and processors.

- Globally, seafood demand from the foodservice sector declined sharply. In the U.S., foodservice sales fell 40% in the first quarter of COVID-19 (March–May 2020) relative to average sales in the three preceding quarters. Mollusks (e.g., scallops, oysters, mussels) incurred the highest losses (down 60%). For the period March to November 2020, sales were down 21% relative to the three preceding quarters.
- In the U.S. and abroad, seafood retail sales surged in 2020. A recent study by FMI (also known as The Food Industry Association) found that in the United States, seafood retail sales increased significantly in 2020 across all seafood categories: frozen, up 36%; fresh, up 25%; and grocery (canned, pouches, etc.), up 21%.
- Aquaculture operations also faced disrupted markets domestically and globally as well as increased costs from having to maintain product while businesses searched for new markets. Shellfish growers were particularly hard hit given their reliance on export markets and restaurant services.
- Seafood exports declined 23% in 2020 when compared to the baseline. All regions experienced decreases in export values, with the exception of

the Pacific Islands. Regionally important species — pollock, cod, lobster, scallops, crab, shrimp, and wild and farmed salmon — experienced overall declines in export values. In contrast, seafood imports in 2020 declined 1%.

## 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.<sup>4</sup>

<sup>4</sup> See <https://www.fisheries.noaa.gov/international-affairs/international-and-regional-fisheries-management-organizations> (accessed February 15, 2022).

## Regional Fishery Management Organizations

### *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.<sup>5</sup> 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). NOAA Fisheries has jurisdiction over 165 endangered and threatened marine species (see Table 1).

**Table 1. Endangered and Threatened Species under NOAA Fisheries Jurisdiction<sup>6</sup>**

| 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 to 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.<sup>7</sup>

<sup>5</sup> See <https://www.iuufishing.noaa.gov/recommendationsandactions/recommendation1415/finalruletraceability.aspx> (accessed February 22, 2022).

<sup>6</sup> 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).

<sup>7</sup> "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>.

## Status of Domestic Species

*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.<sup>8</sup> 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.<sup>9</sup> 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.<sup>10</sup> 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.<sup>11</sup>

<sup>8</sup> The U.S. Fish and Wildlife Service protects walrus, manatees, otters, and polar bears.

<sup>9</sup> The Habitat Assessment Improvement Plan Update is available at [https://spo.nmfs.noaa.gov/sites/default/files/TMSPO181\\_0.pdf](https://spo.nmfs.noaa.gov/sites/default/files/TMSPO181_0.pdf) <https://www.fisheries.noaa.gov/resource/document/habitat-assessment-improvement-plan-2010>.

<sup>10</sup> See <https://www.fisheries.noaa.gov/national/laws-and-policies/catch-shares>.

<sup>11</sup> See Section 303A of the Magnuson-Stevens Act for more information on LAPP requirements.



Implementation dates of these programs span three decades, with six programs established in the 1990s and 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**<sup>12, 13</sup>

| 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 ( <i>pilot implemented in 2007</i> )                                | 2011   |
|                | Pacific Coast Sablefish Permit Stacking Program   | 2001   |
| Pacific        | Pacific Groundfish Trawl Rationalization Program (whiting and non-whiting trawl)                                  | 2011   |
|                | Northeast Multispecies Sectors: Georges Bank Cod - Hook Gear (2004) and Georges Bank Cod - Fixed Gear (2007)      | 2010   |
| Northeast      | Northeast General Category Sea Scallop IFQ Program  | 2010   |
|                | Mid-Atlantic Surfclam and Ocean Quahog IFQ Program  | 1990   |
| Mid-Atlantic   | Mid-Atlantic Golden Tilefish IFQ Program  | 2009   |
|                | Atlantic Highly Migratory Species   | Atlantic Bluefin Tuna Individual Bluefin Quota Program |
| 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.<sup>14</sup> 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 2019 landings revenue from catch share species increased in 7 of the 16 programs and/or sub-components of the programs relative to their respective baseline periods. 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, with an average increase of 157%. Further, results show that only two programs exceeded the annual catch limit (ACL) in 2019 (the BSAI Crab Rationalization and the Amendment 80 catch share programs in the North Pacific Region).

<sup>12</sup> 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.

<sup>13</sup> In 2007, Congress reauthorized the Magnuson-Stevens Act, Section 303A with provisions for limited access privilege programs.

<sup>14</sup> See <https://www.fisheries.noaa.gov/national/laws-and-policies/catch-shares>.

Table 3. Economic Performance Indicators for U.S. Federal Catch Share Programs (2019 \$)<sup>15</sup>

| Region                            | Program  | ACL Exceeded |      | Number of Active Vessels |      | Total Revenue from Catch Share Species |             | Revenue per Active Vessel |           |
|-----------------------------------|--|--------------|------|--------------------------|------|--|-------------|---------------------------|-----------|
|                                   |  | Baseline     | 2019 | Baseline                 | 2019 | Baseline                               | 2019        | Baseline                  | 2019      |
| North Pacific                     | Alaska American Fisheries Act Pollock Cooperative                          | Y            | N    | 147                      | 97   | 268,918,277                            | 390,825,736 | 1,829,376                 | 4,029,131 |
|                                   | Alaska Halibut IFQ   | Y            | N    | 3432                     | 806  | 99,441,120                             | 82,414,361  | 28,975                    | 102,251   |
|                                   | Alaska Sablefish IFQ   | Y            | N    | 1139                     | 280  | 99,861,274                             | 72,146,471  | 87,676                    | 739,410   |
|                                   | Central Gulf of Alaska Rockfish  | Y            | N    | 42                       | 48   | 7,124,178                              | 21,941,509  | 169,623                   | 457,115   |
|                                   | Non-Pollock Trawl Catcher/Processor Groundfish Cooperatives (Amendment 80) | N            | Y    | 22                       | 20   | 98,398,607                             | 115,639,185 | 4,472,664                 | 5,781,959 |
|                                   | BSAI Crab Rationalization  | Y            | Y    | 264                      | 66   | 189,480,402                            | 201,470,668 | 717,729                   | 3,052,586 |
|                                   | West Coast Sablefish Permit Stacking Program                               | NA           | N    | 135                      | 83   | 7,259,424                              | 6,843,602   | 53,774                    | 82,453    |
| Pacific                           | West Coast Trawl Rationalization Whiting and Non-whiting Directed          | NA           | N    | 124                      | 92   | 43,495,757                             | 59,819,898  | 350,772                   | 650,216   |
|                                   | Atlantic Sea Scallop General Category IFQ                                  | N            | N    | 271                      | 120  | 30,853,462                             | 28,313,529  | 113,850                   | 235,946   |
| New England                       | Northeast Multispecies Sectors   | Y            | N    | 417                      | 157  | 93,737,137                             | 47,603,150  | 224,789                   | 303,205   |
|                                   | Mid-Atlantic Golden Tilefish IFQ   | NA           | N    | 14                       | 8    | 5,120,526                              | 5,897,109   | 365,752                   | 737,139   |
| Mid-Atlantic                      | Mid-Atlantic Ocean Quahog ITQ  | N            | N    | 67                       | 15   | 31,891,805                             | 21,917,295  | 475,997                   | 1,461,153 |
|                                   | Mid-Atlantic Surfclam ITQ  | N            | N    | 137                      | 43   | 42,973,537                             | 26,557,610  | 313,675                   | 617,619   |
| Atlantic Highly Migratory Species | Atlantic Highly Migratory Species Individual Bluefin Tuna Quota            | NA           | N    | 116                      | 67   | 1,058,904                              | 650,343     | 9,128                     | 9,707     |
|                                   | Gulf of Mexico Grouper-Tilefish IFQ  | Y            | N    | 630                      | 428  | 24,768,272                             | 21,488,123  | 39,315                    | 50,206    |
| Gulf of Mexico                    | Gulf of Mexico Red Snapper IFQ   | Y            | N    | 482                      | 431  | 15,175,473                             | 33,086,668  | 31,484                    | 76,767    |

<sup>15</sup> 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. BSAI Crab data for 2019/2020.

## 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. 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. In 2019, nearly 300 fisheries worldwide met 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<sup>16</sup>**

| Region        | Fishery   | Certification |
|---------------|---|---------------|
|               | Alaska salmon   | 2000          |
|               | Alaska pollock – Bering Sea and Aleutian Islands and the Gulf of Alaska   | 2005          |
|               | Alaska North Pacific halibut and sablefish  | 2006          |
| North Pacific | 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          |
| Northeast     | American Albacore Fishing Association and the Western Fishboat Owners Association North Pacific albacore tuna   | 2018          |
|               | 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          |
| Southeast     | Prestige Oysters Texas and Louisiana private oyster fishery   | 2019          |
|               | U.S. Gulf of Mexico menhaden purse seine  | 2019          |

<sup>16</sup> Marine Stewardship Council Certifications accessed February 17, 2021. For more information about these fisheries and the Marine Stewardship Council certification process, see <https://www.msc.org/>.

## COMMERCIAL FISHERIES — NATIONAL OVERVIEW

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 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 were selected so that each region has at least one species in the top 10. Results show that commercial fishermen in Alaska caught the most salmon (490.2 million pounds) and earned \$449.5 million for their catch in 2020. Hawai'i fishermen caught the most tuna (20.6 million pounds) and earned the highest revenue for this catch \$67.9 million. Maine fishermen contributed the most to American lobster landings (97.9 million pounds) and earned \$412.6 million for their catch in 2020. In Massachusetts, sea scallopers harvested 31.7 million pounds of scallop and earned \$314 million for their catch. More blue crabs were caught in Louisiana (34.3 million pounds) than in any other state, earning more than \$54.8 million. Louisiana accounted for the greatest quantity of menhaden landed in 2020, with fishermen landing 612 million pounds worth \$66.4 million in dockside revenue. Sea scallop garnered the highest average ex-vessel price per pound (\$9.96) among the key species and species groups in 2020, with state-specific prices ranging from \$8.91 in Rhode Island to \$11.38 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.<sup>17</sup>

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.<sup>18</sup>

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 2020, the seafood industry supported 1.1 million full- and part-time jobs and generated \$154.7 billion in sales, \$39.9 billion in income, and \$62.5 billion in value-added impacts nationwide (Table 5). Importers generated the

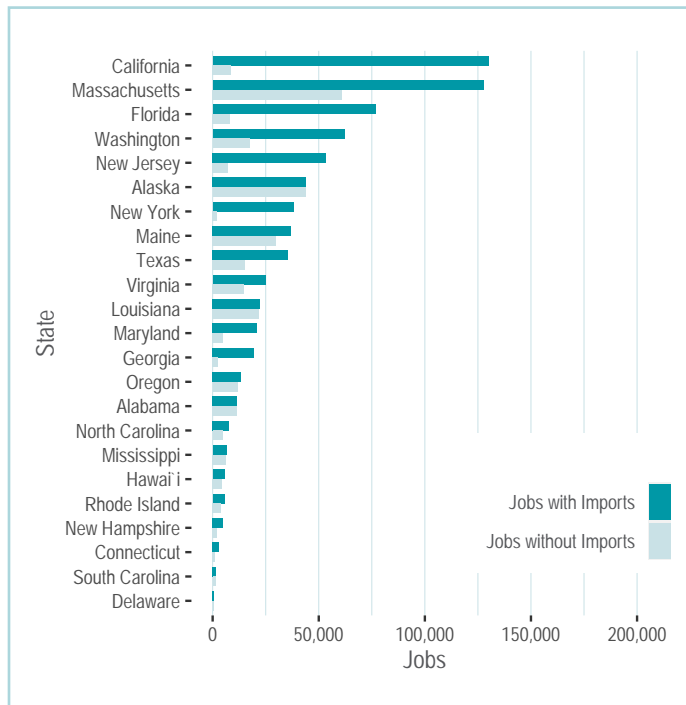
<sup>17</sup> Summary data is available online in the FEUS webtool. [Available at: <https://www.fisheries.noaa.gov/data-tools/fisheries-economics-united-states-interactive-tool>.]

<sup>18</sup> 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](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).]

largest sales impacts (\$80.4 billion) and value-added impacts (\$24.5 billion). Retail generated the largest employment impacts (560,637 jobs) and income impacts (\$14.2 billion).

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

| Category      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Jobs          | 1,270,141 | 1,350,627 | 1,394,833 | 1,179,848 | 1,190,092 | 1,246,366 | 1,225,826 | 1,233,915 | 1,105,610 |
| Sales         | \$140,661 | \$142,249 | \$153,341 | \$144,194 | \$144,293 | \$170,314 | \$165,063 | \$165,482 | \$154,737 |
| Income        | \$38,722  | \$39,747  | \$41,956  | \$39,744  | \$39,905  | \$44,595  | \$42,899  | \$43,376  | \$39,856  |
| Value Added   | \$59,017  | \$60,309  | \$64,071  | \$60,566  | \$60,768  | \$69,177  | \$67,058  | \$67,613  | \$62,478  |
| Total Revenue | \$5,099   | \$5,547   | \$5,473   | \$5,184   | \$5,337   | \$5,409   | \$5,413   | \$5,598   | \$4,780   |



**Graph 1. Jobs supported by the U.S. Seafood Industry (Jobs with and without Imports), 2020**

**Table 6. Sales, Income and Value-Added Impacts Generated by the U.S. Seafood Industry, 2020 (thousands of dollars)**

| State          | Sales         | Income       | Added Value  |
|----------------|---------------|--------------|--------------|
| U.S. Total     | \$154,737,099 | \$39,855,979 | \$62,477,813 |
| California     | \$26,242,840  | \$5,552,074  | \$9,273,696  |
| Florida        | \$18,501,239  | \$3,451,325  | \$6,179,998  |
| Massachusetts  | \$14,764,183  | \$3,607,684  | \$5,624,189  |
| New Jersey     | \$11,170,215  | \$2,312,149  | \$3,886,532  |
| Washington     | \$9,718,293   | \$2,492,442  | \$3,846,751  |
| New York       | \$5,995,855   | \$1,240,690  | \$2,082,226  |
| Texas          | \$4,900,200   | \$1,201,802  | \$1,897,752  |
| Alaska         | \$3,661,146   | \$1,628,171  | \$2,019,764  |
| Maryland       | \$3,437,255   | \$779,413    | \$1,252,027  |
| Georgia        | \$3,246,416   | \$716,545    | \$1,181,394  |
| Virginia       | \$3,234,096   | \$832,729    | \$1,278,891  |
| Maine          | \$3,115,055   | \$900,167    | \$1,352,075  |
| Louisiana      | \$1,353,405   | \$508,582    | \$687,828    |
| Oregon         | \$1,139,196   | \$386,127    | \$546,785    |
| North Carolina | \$817,990     | \$222,610    | \$335,853    |
| New Hampshire  | \$700,257     | \$168,569    | \$266,074    |
| Rhode Island   | \$621,476     | \$168,298    | \$256,873    |
| Connecticut    | \$566,666     | \$120,480    | \$199,767    |
| Alabama        | \$560,378     | \$222,965    | \$291,716    |
| Hawai'i        | \$557,016     | \$166,427    | \$245,482    |
| Mississippi    | \$346,873     | \$136,974    | \$177,125    |
| South Carolina | \$139,133     | \$46,090     | \$65,209     |
| Delaware       | \$135,712     | \$25,703     | \$44,251     |

### Landings Revenue

Landings revenue in the United States totaled \$4.8 billion in 2020 (Table 7). This represented a 13% decrease in nominal value from 2011 levels (a 25% decrease in real terms after adjusting for inflation) and, year-over-year, a 15% decrease from 2019 (Graph 2). Finfish landings revenue accounted for 33% of all landings revenue. American lobster had the highest landings revenue in 2020.

**Table 7. Commercial Fisheries Landings Revenue by Region, 2020 (thousands of dollars)**

| Region                    | Revenue     |
|---------------------------|-------------|
| U.S. Total                | \$4,780,051 |
| North Pacific             | \$1,481,049 |
| New England               | \$1,204,688 |
| Gulf of Mexico            | \$732,461   |
| Pacific                   | \$582,096   |
| Mid-Atlantic              | \$512,603   |
| South Atlantic            | \$183,299   |
| Western Pacific (Hawai'i) | \$83,855    |

From 2011 to 2020, menhaden (37%, 19% in real terms), American lobster (25%, 8% in real terms), and blue crab (5%, -9% in real terms) had the largest increases, while sablefish (-70%, -74% in real terms), Pacific halibut (-67%, -71% in real terms), and Pacific salmon (-28%, -38% in real terms) had the largest decreases. From 2019 to 2020, menhaden (33%) and Alaska pollock (8%) had the largest increases, while sablefish (-38%), Pacific salmon (-32%), and Pacific halibut (-29%) had the largest decreases.

**Commercial Revenue: Largest Increases**

*From 2011:*

- Menhaden (37%, 19% in real terms)
- American lobster (25%, 8% in real terms)
- Blue crab (5%, -9% in real terms)

*From 2019:*

- Menhaden (33%)
- Alaska pollock (8%)

**Commercial Revenue: Largest Decreases**

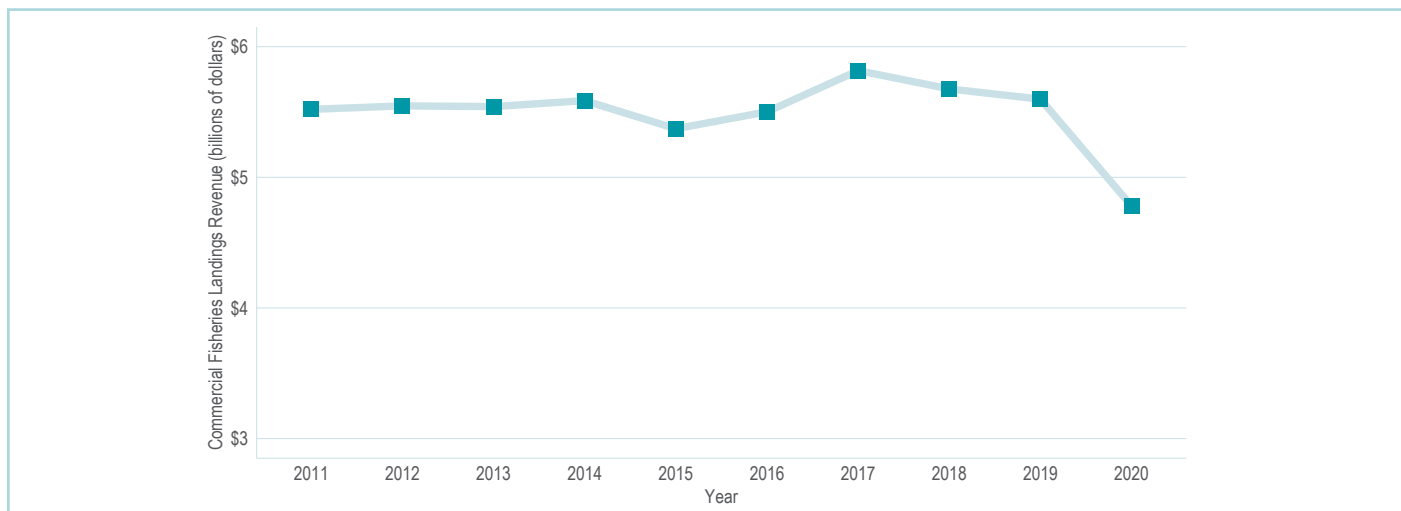
*From 2011:*

- Sablefish (-70%, -74% in real terms)
- Pacific halibut (-67%, -71% in real terms)
- Pacific salmon (-28%, -38% in real terms)

*From 2019:*

- Sablefish (-38%)
- Pacific salmon (-32%)
- Pacific halibut (-29%)

North Pacific earned the greatest share of landings revenue in 2020 (\$1.5 billion), contributing 31% of the national total (Table 7). Alaska (\$614.8 million, or 19% of U.S. shellfish revenue) and Maine (\$508.2 million, or 16% of U.S. shellfish revenue) earned the most ex-vessel revenue from shellfish landings.

**Graph 2. U.S. Commercial Fisheries Landings Revenue, 2011-2020 (nominal values, billions of dollars)**

## Landings

Landings volume in the United States totaled 8.4 billion in 2020 (Table 8). This represented a 15% decrease from 2011 levels and, year-over-year, a 10% decrease from 2019 (Graph 3). Finfish landings revenue accounted for 48% of all landed weight. Alaska pollock had the highest landings volume in 2020.

From 2011 to 2020, Alaska pollock (15%) had the largest increase, while Pacific halibut (-47%), blue crab (-42%), and Pacific salmon (-36%) had the largest decreases. From 2019 to 2020, shrimp (1%) and sablefish (1%) had the largest increases, while Pacific salmon (-40%), blue crab (-21%), and sea scallop (-19%) had the largest decreases.

### Commercial Landings: Largest Increases

From 2011:

- Alaska pollock (15%)

From 2019:

- Shrimp (1%)
- Sablefish (1%)

### Commercial Landings: Largest Decreases

From 2011:

- Pacific halibut (-47%)
- Blue crab (-42%)
- Pacific salmon (-36%)

From 2019:

- Pacific salmon (-40%)
- Blue crab (-21%)
- Sea scallop (-19%)

The North Pacific Region (Alaska) had the greatest share of landings in 2020 (5.1 billion pounds), contributing 60% of the national total (Table 8). By state, Alaska (3.3 billion pounds, or 75% of U.S. shellfish landings) and Maine (139.4 million pounds, or 3% of U.S. shellfish landings) had the greatest shellfish landings.

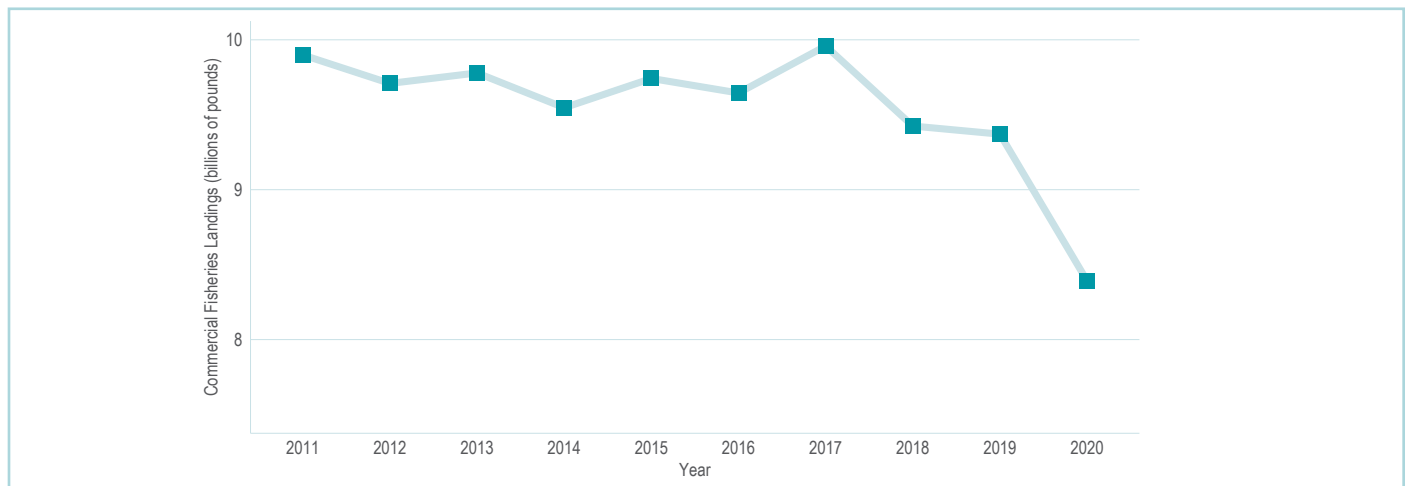
**Table 8. Commercial Fisheries Landings by Region, 2020 (thousands of pounds)**

| Region                    | Landings Volume |
|---------------------------|-----------------|
| U.S. Total                | 8,391,703       |
| North Pacific             | 5,061,976       |
| Gulf of Mexico            | 1,208,955       |
| Pacific                   | 942,795         |
| Mid-Atlantic              | 559,362         |
| New England               | 485,097         |
| South Atlantic            | 106,255         |
| Western Pacific (Hawai`i) | 27,264          |

## Prices

Of all key species or species groups, sea scallop (\$9.94 per pound) had the highest national ex-vessel price. Alaska pollock (\$0.13 per pound) had the lowest ex-vessel price of all key species nationally.

From 2011 to 2020, menhaden (98%, 71% in real terms), blue crab (82%, 57% in real terms), and American lobster (31%, 13% in real terms) had the largest increases, while sablefish (-69%, -73% in real terms), Pacific halibut (-37%, -46% in real terms), and tunas (-10%, -22% in real terms) had the largest decreases. From 2019 to 2020, menhaden (54%), blue crab (18%), and Pacific salmon (13%) had the largest increases, while sablefish (-39%), Pacific halibut (-22%), and tunas (-15%) had the largest decreases.



**Graph 3. U.S. Commercial Fisheries Landings, 2011-2020 (billions of pounds)**

## RECREATIONAL FISHERIES — NATIONAL OVERVIEW

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.<sup>19,20</sup>

### Key U.S. Recreational Species<sup>21</sup>

- Atlantic croaker and spot (Atlantic regions)
- Dolphinfish (Western Pacific and Atlantic)
- Pacific halibut (North Pacific)
- Pacific salmon (Pacific and North Pacific)<sup>22</sup>
- Rockfishes and scorpionfishes (Pacific and North Pacific)<sup>23</sup>
- Seatrout (Atlantic regions)<sup>24</sup>
- Striped bass (Atlantic regions)
- Summer flounder (Atlantic regions)
- Tunas (Atlantic regions)<sup>25</sup>
- Tunas (Pacific and Western Pacific regions)<sup>26</sup>

The economic contributions for both trip and durable expenditures from recreational fishing in 2020 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 2020 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 2020, recreational anglers in West Florida took the most trips (42.2 million trips) and spent the most on trips (\$2.1 billion). East Florida spent the second most on trips (\$1.3 billion).<sup>27</sup>

Virginia caught the most Atlantic croaker and spot (32.9 million fish), West Florida caught the most seatrouts (29.9 million fish), Maryland caught the most striped bass (7.8 million fish), and New Jersey caught the most summer flounder (19.1 million fish). Alaska caught the most Pacific halibut (390,470 fish) and Pacific salmon (607,429 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.<sup>28</sup> 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. 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

<sup>19</sup> Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.

<sup>20</sup> See [Data Sources](#) section for more information about where each region or state's data comes from.

<sup>21</sup> Atlantic Regions refer to those states within New England, Mid-Atlantic, South Atlantic, and the Gulf of Mexico.

<sup>22</sup> Chinook salmon, chum salmon, coho salmon, cutthroat trout, and pink salmon.

<sup>23</sup> 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, striptail rockfish, swordspine rockfish, tiger rockfish, treefish, vermilion rockfish, widow rockfish, yelloweye rockfish, yellowmouth rockfish, and yellowtail rockfish.

<sup>24</sup> Sand seatrout, seatrout genus, silver seatrout, spotted seatrout, and weakfish.

<sup>25</sup> Albacore, bigeye tuna, blackfin tuna, bluefin tuna, tuna genus, and yellowfin tuna.

<sup>26</sup> Albacore, bigeye tuna, bluefin tuna, and yellowfin tuna.

<sup>27</sup> The COVID-19 pandemic had a number of effects on recreational fishing data collection due to closures and restrictions at fishing locations from March through May in a number of states. In some cases, this resulted in data being unavailable for those months on effort and/or catch.

<sup>28</sup> 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.]



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.

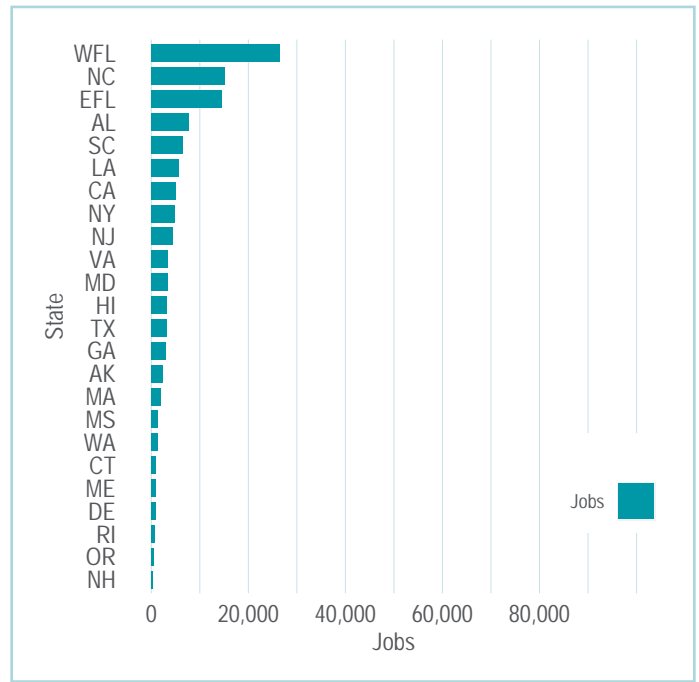
Economic impacts from recreational fishing activities supported 594,734 jobs across the United States in 2020 (Table 9). Recreational fishing also generated about \$98 billion in sales impacts, \$32.9 billion in income impacts, and \$55 billion in value-added impacts.

Impacts from durable equipment expenditures (e.g., rods and reels, fishing-related equipment, boats, and vehicles) accounted for 74% of total job impacts, 76% of sales impacts, 77% of income impacts, and 75% of value added impacts. Of the three fishing trip modes, shore-boat-based fishing trips had the greatest economic impact, accounting for 13% of employment, 12% of sales, 11% of income impacts, and 12% of value-added impacts.

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

| Category    | 2018     | 2019     | 2020     |
|-------------|----------|----------|----------|
| #Jobs       | 469,848  | 553,499  | 594,734  |
| Sales       | \$72,462 | \$89,340 | \$98,028 |
| Income      | \$24,268 | \$30,005 | \$32,935 |
| Value Added | \$40,733 | \$50,122 | \$54,962 |

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.



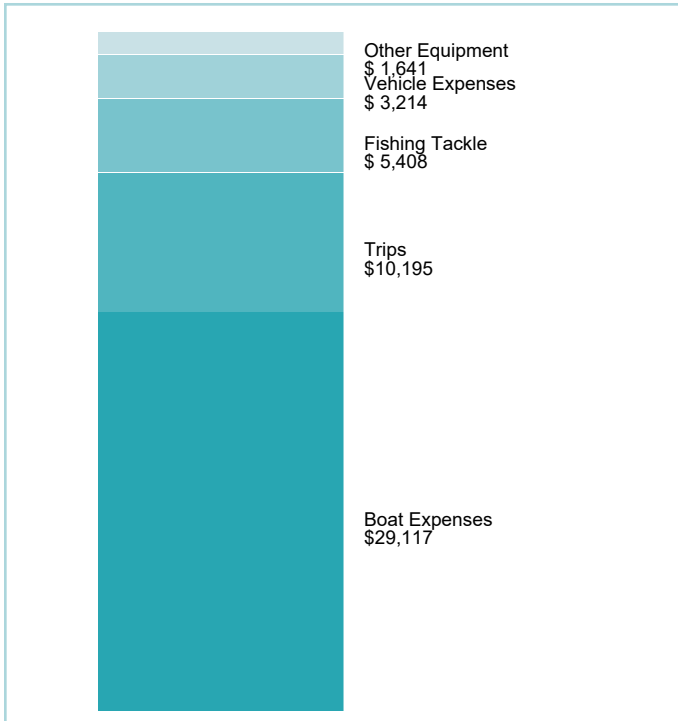
**Graph 4. Jobs supported by the U.S. Recreational Fishing Industry, 2020**

**Table 10. Sales, Income, and Value-Added Impacts Generated by the Recreational Fishing Industry, 2020 (millions of dollars)**

| State          | Jobs    | Sales    | Income   | Value Added |
|----------------|---------|----------|----------|-------------|
| U.S Total      | 594,734 | \$98,028 | \$32,935 | \$54,962    |
| West Florida   | 26,493  | \$2,911  | \$989    | \$1,843     |
| North Carolina | 15,214  | \$1,582  | \$554    | \$956       |
| East Florida   | 14,557  | \$1,532  | \$520    | \$1,026     |
| Alabama        | 7,681   | \$767    | \$224    | \$452       |
| South Carolina | 6,560   | \$605    | \$200    | \$382       |
| Louisiana      | 5,607   | \$662    | \$210    | \$383       |
| California     | 5,083   | \$718    | \$176    | \$302       |
| New York       | 4,872   | \$429    | \$189    | \$328       |
| New Jersey     | 4,455   | \$724    | \$296    | \$469       |
| Virginia       | 3,449   | \$390    | \$143    | \$254       |
| Maryland       | 3,393   | \$335    | \$124    | \$215       |
| Hawai'i        | 3,292   | \$465    | \$144    | \$258       |
| Texas          | 3,257   | \$434    | \$139    | \$263       |
| Georgia        | 2,922   | \$256    | \$84     | \$161       |
| Alaska         | 2,342   | \$287    | \$95     | \$167       |
| Massachusetts  | 1,951   | \$244    | \$120    | \$170       |
| Mississippi    | 1,317   | \$117    | \$39     | \$73        |
| Washington     | 1,255   | \$181    | \$60     | \$108       |
| Connecticut    | 956     | \$118    | \$50     | \$92        |
| Maine          | 928     | \$103    | \$37     | \$61        |
| Delaware       | 903     | \$110    | \$36     | \$72        |
| Rhode Island   | 706     | \$76     | \$38     | \$55        |
| Oregon         | 569     | \$59     | \$23     | \$36        |
| New Hampshire  | 370     | \$38     | \$16     | \$26        |

In 2020, expenditures for fishing trips and durable goods equipment in the United States totaled \$49.6 billion.

Approximately \$10.2 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 (41.9%), and for-hire (11.2%) sectors. Durable goods expenditures totaled \$39.4 billion in 2020, with the largest portion coming from Boat Expenses (\$29.1 billion) (Graph 5).



**Graph 5. Recreational Fishing Trip and Durable Goods Expenditures, 2020 (billions of dollars)**

## Fishing Trips

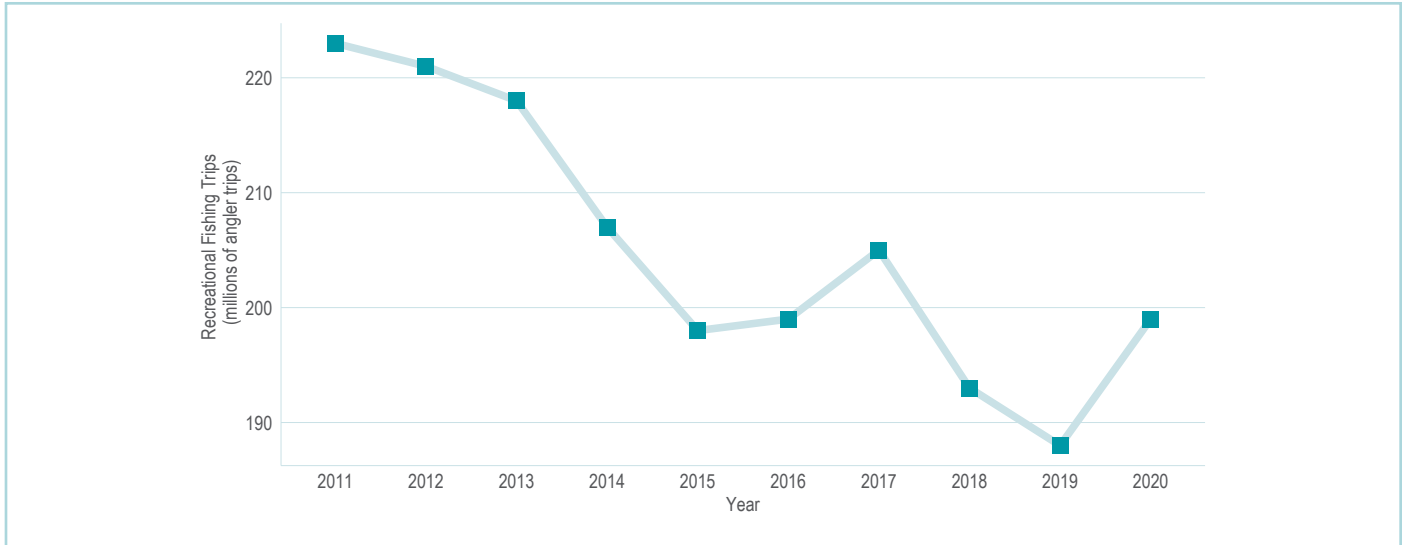
Nationwide, anglers took approximately 199.2 million saltwater fishing trips around the country (Table 11). This number represented an 11% decrease from 2011 and a 6% increase from 2019 (Graph 6). Approximately 62% of fishing trips were taken via shore. West Florida anglers took the most fishing trips (42.2 million trips), followed by those in East Florida and North Carolina (Table 12).

**Table 11. Recreational Fishing Trips by Region, 2020 (thousands of angler trips)**

| Region                    | Trips   |
|---------------------------|---------|
| U.S. Total                | 199,188 |
| South Atlantic            | 70,459  |
| Gulf of Mexico            | 56,821  |
| Mid-Atlantic              | 49,115  |
| New England               | 16,024  |
| Western Pacific (Hawai'i) | 3,902   |
| Pacific                   | 2,302   |
| North Pacific             | 566     |

**Table 12. Recreational Fishing Trips by State, 2020 (thousands of trips)**

| State          | Trips  |
|----------------|--------|
| West Florida   | 42,198 |
| East Florida   | 40,436 |
| North Carolina | 16,399 |
| New Jersey     | 16,017 |
| New York       | 14,841 |
| South Carolina | 8,734  |
| Virginia       | 8,164  |
| Maryland       | 7,974  |
| Alabama        | 6,623  |
| Massachusetts  | 5,950  |
| Georgia        | 4,890  |
| Mississippi    | 4,298  |
| Connecticut    | 4,196  |
| Hawai'i        | 3,902  |
| Rhode Island   | 2,848  |
| Louisiana      | 2,501  |
| Delaware       | 2,118  |
| Maine          | 2,110  |
| California     | 1,611  |
| Texas          | 1,201  |
| New Hampshire  | 920    |
| Washington     | 496    |
| Oregon         | 195    |



**Graph 6. Recreational Fishing Trips, 2011-2020 (millions of angler trips)**

## Harvest and Release Trends

In 2020, Atlantic croaker and spot (Atlantic regions) (86.8 million fish), seatrout (Atlantic regions) (59.5 million fish), and striped bass (Atlantic regions) (33.4 million fish) were most frequently caught by recreational fishermen in the United States. The following text box shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2011 to 2020, tunas (Pacific and Western Pacific regions) (99%), striped bass (Atlantic regions) (51%), and tunas (Atlantic regions) (40%) had the largest increases, while dolphinfish (Western Pacific and Atlantic) (-52%), seatrout (Atlantic regions) (-49%), and Pacific salmon (Pacific and North Pacific) (47%) had the largest decreases. From 2019 to 2020, tunas (Atlantic regions) (167%), Atlantic croaker and spot (Atlantic regions) (35%), and tunas (Pacific and Western Pacific regions) (10%) had the largest increases, while Pacific salmon (Pacific and North Pacific) (-41%), dolphinfish (Western Pacific and Atlantic) (-36%), and rockfishes and scorpionfishes (Pacific and North Pacific) (-28%) had the largest decreases.

### Harvest and Release: Largest Increases

*From 2011:*

- Tunas (Pacific and Western Pacific regions) (99%)
- Striped bass (Atlantic regions) (51%)
- Tunas (Atlantic regions) (40%)

*From 2019:*

- Tunas (Atlantic regions) (167%)
- Atlantic croaker and spot (Atlantic regions) (35%)
- Tunas (Pacific and Western Pacific regions) (10%)

### Harvest and Release: Largest Decreases

*From 2011:*

- Dolphinfish (Western Pacific and Atlantic) (-52%)
- Seatrout (Atlantic regions) (-49%)
- Pacific salmon (Pacific and North Pacific) (-47%)

*From 2019:*

- Pacific salmon (Pacific and North Pacific) (-41%)
- Dolphinfish (Western Pacific and Atlantic) (-36%)
- Rockfishes and scorpionfishes (Pacific and North Pacific) (-28%)

## 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.<sup>29</sup>

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.<sup>30</sup> 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 2019, 8 million employer establishments operated throughout the entire United States (including marine and non-marine related establishments). These establishments employed 133 million workers and had a total annual payroll of \$7.4 trillion. The nation's gross domestic product was approximately \$21.4 trillion in 2019.

### Seafood Sales and Processing<sup>31</sup>

**Seafood Product Preparation and Packaging:** In 2019, there were 560 employer firms in the seafood sales and processing sector (a 10% decrease from 2011). These establishments employed 31,026 workers (a 1% decrease from 2011) and had a total annual payroll of \$1.6 billion (a 13% increase in real terms from 2011). The greatest number of establishments in this sector was in Alaska (98), followed by Washington (79) and California (39).

**Retail Seafood Sales:** In 2019, there were 1,959 employer firms in the seafood retail sector (a 1% decrease from 2011). These establishments employed 11,697 workers (a 17% increase from 2011) and had a total annual payroll of \$336 million (a 32% increase in real terms from 2011). The greatest number of establishments in this sector was in New York (370), followed by Florida (170) and California (155).

**Wholesale Seafood Sales:** Nationally, there were 2,006 employer firms in the seafood wholesale sector (a 12% decrease from 2011). These establishments employed 23,377 workers (a 13% increase from 2011) and had a total annual payroll of \$1.1 billion (a 17% increase in real terms from 2011). The greatest number of establishments in this sector was in California (325), followed by New York (258) and Florida (241).

### Transportation Support and Marine Operations

#### Coastal and Great Lakes Freight Transportation:

There were 544 employer firms in the coastal and Great Lakes freight transportation sector (a 1% decrease from 2011). These establishments employed 17,682 workers (a 5% decrease from 2011) and had a total annual payroll of \$1.7 billion (a 7% increase in real terms from 2011). Alaska (89), Louisiana (75), and New York (71) had the greatest number of these employer establishments.

#### Deep Sea Freight Transportation:

There were 286 employer firms in the deep sea freight transportation sector (a 24% decrease from 2011). These establishments employed 6,571 workers (a 37% decrease from 2011) and had a total annual payroll of \$662 million. Florida (55), California (42), and Texas (38) had the greatest number of these employer establishments.

#### Deep Sea Passenger Transportation:

There were 68 employer firms in the deep sea passenger transportation sector (a 24% increase from 2011). These establishments employed 15,329 workers and had a total annual payroll of \$1.4 billion. Florida (41), Washington (5), and California (5) had the greatest number of these employer establishments.

<sup>29</sup> 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/USAGDPDEFSAISMEI>).

<sup>30</sup> U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

<sup>31</sup> This report has provided economic statistics (number of firms and annual receipts) for non-employer firms in the seafood sales and processing sectors in previous volumes. Currently this information is not available from the Census Bureau for 2019.

**Marinas:** There were 3,760 employer firms classified as marinas (a 3% decrease from 2011). These establishments employed 29,332 workers (a 10% increase from 2011) and had a total annual payroll of \$1.2 billion (a 10% increase in real terms from 2011). Florida (471), New York (416), and California (225) had the greatest number of these employer establishments.

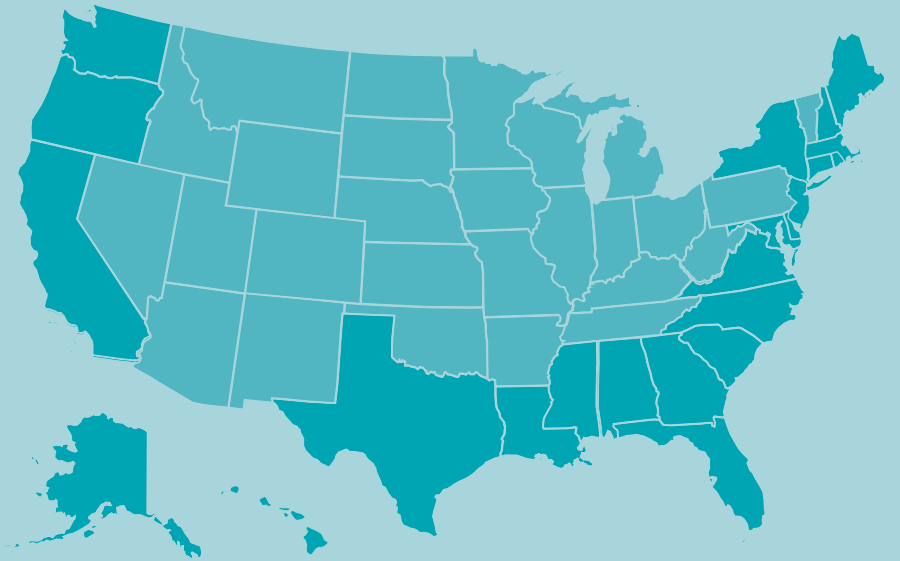
**Marine Cargo Handling:** There were 471 employer firms providing marine cargo handling services (a 14% decrease from 2011). These establishments employed 67,724 workers (a 14% increase from 2011) and had a total annual payroll of \$4.9 billion (a 37% increase in real terms from 2011). Florida (62), Texas (60), and California (57) had the greatest number of these employer establishments.

**Navigational Services to Shipping:** There were 1,026 employer firms providing navigational services to the shipping sector (a 23% increase from 2011). These establishments employed 14,609 workers (a 9% increase from 2011) and had a total annual payroll of \$1.2 billion (a 19% increase in real terms from 2011). Florida (222), Louisiana (161), and Texas (89) had the greatest number of these employer establishments.

**Port and Harbor Operations:** There were 350 employer firms in the port and harbor operations sector (a 37% increase from 2011). These establishments employed 12,532 workers (a 154% increase from 2011) and had a total annual payroll of \$810.7 million (a 131% increase in real terms from 2011). Florida (50), Texas (31), and Louisiana (30) had the greatest number of these employer establishments.

**Ship and Boat Building:** There were 1,434 employer firms in the ship and boat building sector (a 4% decrease from 2011). These establishments employed 137,065 workers (a 7% increase from 2011) and had a total annual payroll of \$8.5 billion (a 9% increase in real terms from 2011). Florida (275), Washington (125), and California (95) had the greatest number of these employer establishments.

# Tables | National Overview



2020 Economic Impacts of the United States Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |             |            |             | Without Imports |            |            |             |
|--------------------------------------|--------------|-------------|------------|-------------|-----------------|------------|------------|-------------|
|                                      | Jobs         | Sales       | Income     | Value Added | Jobs            | Sales      | Income     | Value Added |
| Total Impacts                        | 1,105,610    | 154,737,099 | 39,855,979 | 62,477,813  | 588,226         | 47,024,106 | 17,187,707 | 24,392,098  |
| Commercial Harvesters                | 138,342      | 12,606,997  | 4,166,649  | 6,493,412   | 138,342         | 12,606,997 | 4,166,649  | 6,493,412   |
| Seafood Processors and Dealers       | 89,701       | 14,777,564  | 4,663,703  | 6,483,069   | 44,818          | 7,383,459  | 2,330,172  | 3,239,199   |
| Importers                            | 242,890      | 80,420,806  | 12,888,968 | 24,515,783  | NA              | NA         | NA         | NA          |
| Seafood Wholesalers and Distributors | 74,039       | 12,086,320  | 3,971,649  | 5,682,887   | 20,843          | 3,402,407  | 1,118,055  | 1,599,783   |
| Retail                               | 560,637      | 34,845,412  | 14,165,010 | 19,302,662  | 384,223         | 23,631,243 | 9,572,831  | 13,059,704  |

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

| Category            | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total               | 5,520 | 5,547 | 5,541 | 5,587 | 5,372 | 5,502 | 5,817 | 5,677 | 5,598 | 4,780 |
| Finfish             | 2,202 | 2,119 | 2,144 | 1,945 | 1,810 | 1,783 | 2,186 | 1,979 | 1,962 | 1,593 |
| Shellfish and Other | 3,318 | 3,428 | 3,398 | 3,643 | 3,562 | 3,719 | 3,631 | 3,698 | 3,636 | 3,187 |
| Key Species         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Alaska pollock      | 402   | 453   | 406   | 400   | 509   | 417   | 457   | 451   | 388   | 420   |
| American lobster    | 423   | 432   | 461   | 567   | 622   | 670   | 568   | 631   | 637   | 530   |
| Blue crab           | 185   | 193   | 186   | 216   | 218   | 211   | 197   | 196   | 209   | 195   |
| Menhaden            | 144   | 128   | 125   | 127   | 180   | 179   | 114   | 161   | 149   | 198   |
| Pacific halibut     | 209   | 148   | 115   | 110   | 115   | 122   | 121   | 87    | 98    | 69    |
| Pacific salmon      | 665   | 581   | 756   | 617   | 502   | 421   | 788   | 599   | 708   | 479   |
| Sablefish           | 185   | 148   | 102   | 111   | 115   | 117   | 147   | 111   | 89    | 55    |
| Sea scallop         | 581   | 559   | 467   | 424   | 440   | 488   | 510   | 532   | 570   | 486   |
| Shrimp              | 527   | 505   | 583   | 692   | 487   | 510   | 544   | 510   | 487   | 456   |
| Tunas               | 136   | 164   | 146   | 134   | 138   | 157   | 153   | 149   | 142   | 118   |

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

| Category            | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total               | 9,899 | 9,709 | 9,779 | 9,547 | 9,742 | 9,645 | 9,958 | 9,425 | 9,371 | 8,392 |
| Finfish             | 5,586 | 5,380 | 5,391 | 4,997 | 5,257 | 5,030 | 5,310 | 4,703 | 4,880 | 4,014 |
| Shellfish and Other | 4,313 | 4,328 | 4,388 | 4,549 | 4,486 | 4,615 | 4,649 | 4,722 | 4,491 | 4,378 |
| Key Species         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Alaska pollock      | 2,811 | 2,872 | 3,003 | 3,146 | 3,263 | 3,355 | 3,389 | 3,364 | 3,353 | 3,230 |
| American lobster    | 126   | 151   | 151   | 148   | 147   | 159   | 137   | 148   | 127   | 121   |
| Blue crab           | 203   | 183   | 132   | 140   | 153   | 162   | 148   | 140   | 149   | 118   |
| Menhaden            | 1,875 | 1,771 | 1,341 | 1,232 | 1,631 | 1,736 | 1,414 | 1,582 | 1,512 | 1,302 |
| Pacific halibut     | 42    | 33    | 29    | 22    | 24    | 24    | 26    | 21    | 24    | 22    |
| Pacific salmon      | 780   | 637   | 1,070 | 720   | 1,067 | 561   | 1,009 | 577   | 839   | 500   |
| Sablefish           | 43    | 43    | 39    | 35    | 35    | 34    | 38    | 39    | 41    | 41    |
| Sea scallop         | 59    | 57    | 41    | 34    | 36    | 41    | 52    | 58    | 61    | 49    |
| Shrimp              | 319   | 313   | 291   | 327   | 333   | 292   | 299   | 308   | 275   | 279   |
| Tunas               | 50    | 60    | 56    | 58    | 57    | 56    | 55    | 52    | 49    | 48    |

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

| Species          | 2011 | 2012 | 2013  | 2014  | 2015  | 2016  | 2017 | 2018 | 2019 | 2020 |
|------------------|------|------|-------|-------|-------|-------|------|------|------|------|
| Alaska pollock   | 0.14 | 0.16 | 0.14  | 0.13  | 0.16  | 0.12  | 0.13 | 0.13 | 0.12 | 0.13 |
| American lobster | 3.35 | 2.86 | 3.06  | 3.83  | 4.23  | 4.20  | 4.14 | 4.27 | 5.00 | 4.38 |
| Blue crab        | 0.91 | 1.05 | 1.41  | 1.54  | 1.42  | 1.31  | 1.34 | 1.41 | 1.40 | 1.66 |
| Menhaden         | 0.08 | 0.07 | 0.09  | 0.10  | 0.11  | 0.10  | 0.08 | 0.10 | 0.10 | 0.15 |
| Pacific halibut  | 4.96 | 4.47 | 3.90  | 4.94  | 4.85  | 5.03  | 4.73 | 4.05 | 3.99 | 3.11 |
| Pacific salmon   | 0.85 | 0.91 | 0.71  | 0.86  | 0.47  | 0.75  | 0.78 | 1.04 | 0.84 | 0.96 |
| Sablefish        | 4.29 | 3.44 | 2.58  | 3.13  | 3.27  | 3.48  | 3.90 | 2.86 | 2.19 | 1.34 |
| Sea scallop      | 9.89 | 9.83 | 11.40 | 12.55 | 12.32 | 12.00 | 9.85 | 9.20 | 9.39 | 9.94 |
| Shrimp           | 1.65 | 1.61 | 2.00  | 2.12  | 1.46  | 1.75  | 1.82 | 1.65 | 1.77 | 1.63 |
| Tunas            | 2.73 | 2.75 | 2.62  | 2.29  | 2.41  | 2.81  | 2.81 | 2.87 | 2.89 | 2.45 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of the United States Recreational Fishing (thousands of dollars; number of jobs)**

| Fishing Mode                         | Jobs    | Sales      | Income     | Value Added |
|--------------------------------------|---------|------------|------------|-------------|
| Total United States Economic Impacts | 594,734 | 98,027,892 | 32,934,672 | 54,961,642  |
| Total Durable Expenditures           | 441,877 | 74,215,862 | 25,205,054 | 41,293,684  |
| For-Hire                             | 20,988  | 2,713,750  | 903,908    | 1,545,481   |
| Private Boat                         | 56,812  | 9,814,827  | 3,079,640  | 5,571,578   |
| Shore                                | 75,058  | 11,283,453 | 3,746,070  | 6,550,899   |

**2020 Angler Trip Expenditures by Fishing Mode (thousands of dollars)**

| Total Trip | For-Hire  | Private Boat | Shore     |
|------------|-----------|--------------|-----------|
| 10,195,328 | 1,144,194 | 4,269,351    | 4,781,783 |

**2020 Durable Goods Expenditures by Equipment Category (thousands of dollars)**

| Total Durable Expenditures | Fishing Tackle | Other Equipment | Boat Expenses | Vehicle Expenses |
|----------------------------|----------------|-----------------|---------------|------------------|
| 39,379,476                 | 5,407,931      | 1,640,878       | 29,116,794    | 3,213,873        |

**2020 Combined Angler Trip and Durable Goods Expenditures (thousands of dollars)**

|  |            |
|--|------------|
| <b>Total Trip and Durable Expenditures</b> | 49,574,804 |
|--|------------|

**Recreational Anglers by Residential Area (thousands of anglers)<sup>1</sup>**

| Category      | 2011   | 2012   | 2013   | 2014   | 2015  | 2016   | 2017  | 2018  | 2019 | 2020 |
|---------------|--------|--------|--------|--------|-------|--------|-------|-------|------|------|
| Total Anglers | 10,866 | 10,896 | 11,240 | 10,958 | 9,801 | 10,070 | 9,139 | 8,296 | NA   | NA   |
| Coastal       | 9,446  | 9,461  | 9,821  | 9,585  | 8,483 | 8,744  | 7,892 | 7,107 | NA   | NA   |
| Non-Coastal   | 1,420  | 1,436  | 1,419  | 1,373  | 1,319 | 1,326  | 1,247 | 1,190 | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)<sup>2,3</sup>**

| Category     | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total Trips  | 223,257 | 221,389 | 217,566 | 207,065 | 197,945 | 199,204 | 205,019 | 193,146 | 187,934 | 199,188 |
| For-Hire     | 3,582   | 3,753   | 4,328   | 4,538   | 4,471   | 3,723   | 3,941   | 4,007   | 4,477   | 3,488   |
| Private Boat | 88,413  | 87,656  | 84,288  | 78,395  | 73,457  | 73,334  | 74,429  | 69,304  | 66,872  | 72,987  |
| Shore        | 131,262 | 129,981 | 128,950 | 124,132 | 120,017 | 122,148 | 126,649 | 119,836 | 116,586 | 122,713 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>4</sup>**

| Species   | Category | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Atlantic croaker and spot (Atlantic regions)              | H        | 43,579 | 42,052 | 53,573 | 56,015 | 35,387 | 29,207 | 37,944 | 24,824 | 23,788 | 34,637 |
|   | R        | 56,743 | 63,520 | 81,918 | 56,454 | 41,335 | 41,899 | 43,216 | 37,192 | 40,251 | 52,134 |
| Dolphinfish (Western Pacific and Atlantic)                | H        | 3,080  | 2,509  | 2,460  | 2,555  | 4,018  | 1,962  | 2,536  | 3,153  | 2,340  | 1,704  |
|   | R        | 1,356  | 496    | 3,372  | 1,338  | 1,952  | 341    | 839    | 883    | 987    | 428    |
| Pacific halibut (North Pacific)                           | H        | 394    | 388    | 454    | 408    | 420    | 400    | 352    | 352    | 352    | 261    |
|   | R        | 311    | 324    | 324    | 251    | 271    | 244    | 199    | 184    | 185    | 130    |
| Pacific salmon (Pacific and North Pacific)                | H        | 1,082  | 800    | 1,414  | 1,354  | 1,452  | 636    | 984    | 706    | 935    | 528    |
|   | R        | 700    | 509    | 858    | 606    | 870    | 412    | 666    | 519    | 668    | 425    |
| Rockfishes and scorpionfishes (Pacific and North Pacific) | H        | 3,072  | 3,635  | 4,135  | 3,727  | 4,147  | 3,811  | 3,874  | 3,786  | 4,418  | 3,035  |
|   | R        | 731    | 807    | 1,046  | 847    | 972    | 931    | 1,052  | 1,073  | 1,084  | 946    |
| Seatrout (Atlantic regions)                               | H        | 43,188 | 45,462 | 36,471 | 13,337 | 14,721 | 19,483 | 21,766 | 15,291 | 14,718 | 13,793 |
|   | R        | 72,817 | 78,095 | 64,490 | 38,680 | 41,357 | 56,323 | 58,562 | 52,533 | 44,566 | 45,736 |
| Striped bass (Atlantic regions)                           | H        | 5,049  | 4,077  | 5,217  | 4,055  | 3,135  | 3,526  | 3,011  | 2,456  | 2,201  | 1,793  |
|   | R        | 17,032 | 21,049 | 26,985 | 24,521 | 25,991 | 34,183 | 41,734 | 33,273 | 29,587 | 31,613 |
| Summer flounder (Atlantic regions)                        | H        | 4,366  | 5,758  | 6,625  | 5,373  | 4,051  | 4,306  | 3,237  | 2,431  | 2,451  | 3,557  |
|   | R        | 51,722 | 38,969 | 38,362 | 39,214 | 30,141 | 26,951 | 24,911 | 21,141 | 28,363 | 29,767 |
| Tunas (Atlantic regions)                                  | H        | 302    | 386    | 383    | 177    | 198    | 266    | 297    | 328    | 194    | 466    |
|   | R        | 116    | 55     | 26     | 52     | 22     | 71     | 58     | 82     | 24     | 117    |
| Tunas (Pacific and Western Pacific regions)               | H        | 370    | 681    | 730    | 872    | 824    | 457    | 659    | 621    | 739    | 767    |
|   | R        | 98     | 30     | 37     | 213    | 147    | 122    | 263    | 173    | 113    | 166    |

<sup>1</sup> All anglers reported in this table are U.S. residents. NA = Indicates Not Applicable; no participation values are available after 2018.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.



2019 United States Economy<sup>1</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 8.0                                 | 133                            | 7.4                                  | 11.4  | 21.4                                      | 1                                    |

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)<sup>2</sup>

| Sector                                    | Statistic | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019 |
|---|-----------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| Seafood product preparation and packaging | Firms     | 1,757   | 1,766   | 1,812   | 1,947   | 2,108   | 2,208   | 2,242   | 2,289   | NA   |
|   | Receipts  | 110,745 | 115,167 | 128,927 | 146,626 | 163,625 | 176,593 | 175,735 | 188,774 | NA   |
| Seafood sales, retail                     | Firms     | 2,514   | 2,657   | 2,497   | 2,557   | 2,471   | 2,392   | 2,428   | 2,373   | NA   |
|   | Receipts  | 212,679 | 217,702 | 205,555 | 203,459 | 206,676 | 207,428 | 214,481 | 216,318 | NA   |

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

| Sector                                    | Statistic      | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      |
|---|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Seafood product preparation and packaging | Establishments | 620       | 589       | 604       | 640       | 618       | 586       | 551       | 555       | 560       |
|   | Employees      | 31,261    | 30,988    | 31,390    | 32,180    | 30,708    | 30,554    | 31,801    | 30,913    | 31,026    |
| Seafood Sales, Wholesale                  | Payroll        | 1,200,263 | 1,196,207 | 1,228,826 | 1,311,910 | 1,354,572 | 1,380,087 | 1,458,900 | 1,514,150 | 1,554,431 |
|   | Establishments | 2,287     | 1,954     | 2,098     | 2,100     | 2,132     | 2,176     | 1,998     | 1,998     | 2,006     |
|   | Employees      | 20,622    | 20,030    | 20,367    | 21,155    | 22,060    | 22,273    | 21,914    | 22,668    | 23,377    |
| Seafood sales, retail                     | Payroll        | 848,454   | 867,179   | 884,645   | 910,527   | 999,264   | 1,036,051 | 1,039,198 | 1,089,778 | 1,138,179 |
|   | Establishments | 1,972     | 1,957     | 1,995     | 2,015     | 2,059     | 2,067     | 1,960     | 1,967     | 1,959     |
|   | Employees      | 10,006    | 10,293    | 10,631    | 11,037    | 11,443    | 12,114    | 10,757    | 11,253    | 11,697    |
|   | Payroll        | 222,508   | 237,619   | 253,490   | 271,732   | 292,726   | 312,224   | 279,757   | 314,173   | 336,049   |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      |
|--|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ship and Boat Building                         | Establishments | 1,497     | 1,560     | 1,514     | 1,524     | 1,541     | 1,508     | 1,463     | 1,475     | 1,434     |
|  | Employees      | 127,522   | 136,365   | 135,287   | 138,687   | 143,287   | 140,179   | 137,300   | 137,486   | 137,065   |
|  | Payroll        | 6,845,322 | 7,543,402 | 7,556,373 | 7,882,846 | 8,030,983 | 7,951,338 | 7,914,193 | 8,439,466 | 8,544,280 |
| Deep Sea Freight Transportation                | Establishments | 378       | 375       | 305       | 332       | 350       | 313       | 276       | 283       | 286       |
|  | Employees      | 10,362    | 12,375    | 8,704     | 8,646     | 8,014     | 7,009     | 6,515     | 6,724     | 6,571     |
| Deep Sea Passenger Transportation              | Payroll        | 921,990   | 1,073,529 | 703,003   | 683,281   | 671,624   | 638,900   | 654,461   | 677,031   | 662,012   |
|  | Establishments | 55        | 58        | 62        | 56        | 61        | 62        | 69        | 65        | 68        |
|  | Employees      | ds        | ds        | ds        | ds        | 15,157    | 14,596    | 15,128    | 16,261    | 15,329    |
| Coastal and Great Lakes Freight Transportation | Payroll        | ds        | ds        | ds        | ds        | 1,246,384 | 1,155,308 | 1,299,990 | 1,314,821 | 1,374,820 |
|  | Establishments | 549       | 496       | 497       | 598       | 593       | 603       | 581       | 553       | 544       |
|  | Employees      | 18,590    | 19,099    | 18,659    | 20,884    | 19,983    | 19,004    | 17,799    | 16,973    | 17,682    |
| Port and Harbor Operations                     | Payroll        | 1,400,267 | 1,467,709 | 1,512,053 | 1,835,024 | 1,746,612 | 1,677,305 | 1,600,861 | 1,645,742 | 1,720,128 |
|  | Establishments | 255       | 525       | 383       | 351       | 337       | 332       | 335       | 354       | 350       |
|  | Employees      | 4,933     | 25,396    | 7,000     | 6,769     | 7,855     | 8,003     | 9,005     | 11,119    | 12,532    |
| Marine Cargo Handling                          | Payroll        | 306,882   | 1,345,857 | 420,664   | 399,502   | 434,209   | 424,370   | 503,197   | 733,536   | 810,724   |
|  | Establishments | 545       | 343       | 458       | 482       | 492       | 492       | 480       | 464       | 471       |
|  | Employees      | 59,517    | 43,824    | 66,301    | 69,830    | 66,414    | 62,680    | 58,663    | 62,729    | 67,724    |
| Navigational Services to Shipping              | Payroll        | 3,159,964 | 2,601,146 | 4,086,182 | 4,406,525 | 4,334,958 | 4,392,350 | 4,514,115 | 4,799,924 | 4,946,930 |
|  | Establishments | 836       | 850       | 847       | 881       | 889       | 877       | 1,032     | 1,020     | 1,026     |
|  | Employees      | 13,441    | 12,532    | 12,485    | 12,148    | 11,864    | 12,457    | 13,635    | 15,034    | 14,609    |
| Marinas  | Payroll        | 893,889   | 838,959   | 929,419   | 907,763   | 923,303   | 920,450   | 1,056,307 | 1,198,227 | 1,219,033 |
|  | Establishments | 3,896     | 3,782     | 3,844     | 3,811     | 3,881     | 3,826     | 3,669     | 3,732     | 3,760     |
|  | Employees      | 26,557    | 25,764    | 26,373    | 26,709    | 26,999    | 27,471    | 26,825    | 28,994    | 29,332    |
|  | Payroll        | 953,497   | 913,140   | 951,123   | 995,248   | 1,036,253 | 1,081,496 | 1,050,970 | 1,177,759 | 1,202,384 |

<sup>1</sup> 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.

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>3</sup> ds = Data are suppressed.

# North Pacific Region

- Alaska



Offloading commercial halibut.  
Photo: North Pacific Fishery Management Council

## 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 were listed as overfished as of December 2020. 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 \$884 million in 2019, exceeding the total landings revenue of any other state and accounting for half of Alaska's landings revenue in 2019. 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 2019 key performance indicators of the halibut 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. The 2019 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 2019 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 2019/2020 key performance indicators of the program show that relative to the baseline period, quota, landings, and the number of active vessels decreased, while inflation-adjusted landings revenue and 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 2019 key performance indicators of the program show that relative to the baseline period, quota and the number of active vessels decreased while 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 2019 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 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 North Pacific 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.

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.<sup>1</sup>

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 2020, the commercial fishing and seafood industry supported 43,870 full- and part-time jobs and generated \$3.7 billion in sales, \$1.6 billion in income, and \$2 billion in value-added impacts in the North Pacific Region. Commercial harvesters generated the largest sales impacts (\$2.5 billion), value-added impacts (\$1.4 billion), income impacts (\$1.2 billion), and employment impacts (31,670 jobs).

### Landings Revenue

In 2020, landings revenue in Alaska totaled \$1.5 billion, a 27% decrease from 2011 (a 37% decrease in real terms after adjusting for inflation) and a 16% decrease from 2019.

Finfish landings revenue accounted for 58% of all landings revenue. In 2020, salmon (\$449.5 million), Alaska pollock (\$420 million), and crab (\$180.8 million) had the highest landings revenue in this region. Together, these top three species accounted for 71% of total landings revenue.

From 2011 to 2020, Atka mackerel (22%, 5% in real terms) and Alaska pollock (4%, -10% in real terms) had the largest increases, while sablefish (-69%, -73% in real terms), Pacific halibut (-68%, -72% in real terms), and flatfish (-50%, -57% in real terms) had the largest decreases. From 2019 to 2020, Pacific cod (15%) and Alaska pollock (8%) had the largest increases, while Pacific herring (-63%), sablefish (-36%), and salmon (-33%) had the largest decreases.

#### Commercial Revenue: Largest Increases

*From 2011:*

- Atka mackerel (22%, 5% in real terms)
- Alaska pollock (4%, -10% in real terms)

*From 2019:*

- Pacific cod (15%)
- Alaska pollock (8%)

#### Commercial Revenue: Largest Decreases

*From 2011:*

- Sablefish (-69%, -73% in real terms)
- Pacific halibut (-68%, -72% in real terms)
- Flatfish (-50%, -57% in real terms)

*From 2019:*

- Pacific herring (-63%)
- Sablefish (-36%)
- Salmon (-33%)

### Landings

In 2020, Alaska's commercial fishermen landed over 5.1 billion pounds of finfish and shellfish. This represents a 5% decrease from 2011 and a 10% decrease from 2019.

<sup>1</sup> 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](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).]

Alaska pollock contributed the highest landings volume in the region, accounting for 64% of total landing weight.

From 2011 to 2020, rockfish (59%), Alaska pollock (15%), and Atka mackerel (15%) had the largest increases, while Pacific herring (-82%), Pacific halibut (-48%), and Pacific cod (-43%) had the largest decreases. From 2019 to 2020, crab (15%), sablefish (12%), and Atka mackerel (2%) had the largest increases, while Pacific herring (-66%), salmon (-41%), and Pacific cod (-18%) had the largest decreases.

**Commercial Landings: Largest Increases**

*From 2011:*

- Rockfish (59%)
- Alaska pollock (15%)
- Atka mackerel (15%)

*From 2019:*

- Crab (15%)
- Sablefish (12%)
- Atka mackerel (2%)

**Commercial Landings: Largest Decreases**

*From 2011:*

- Pacific herring (-82%)
- Pacific halibut (-48%)
- Pacific cod (-43%)

*From 2019:*

- Pacific herring (-66%)
- Salmon (-41%)
- Pacific cod (-18%)

**Prices**

In 2020, crab (\$3.22 per pound) received the highest ex-vessel price in the region. Landings of Alaska pollock (\$0.13 per pound) had the lowest ex-vessel price. From 2011 to 2020, Pacific herring (318%, 261% in real terms), Pacific cod (46%, 26% in real terms), and salmon (11%, -4% in real terms) had the largest increases, while sablefish (-72%, -76% in real terms), rockfish (-51%, -58% in real terms), and Pacific halibut (-38%, -46% in real terms) had the largest decreases. From 2019 to 2020, Pacific cod (41%), salmon (13%), and Alaska pollock (12%) had the largest increases, while sablefish (-43%), rockfish (-28%), and Pacific halibut (-23%) had the largest decreases.

**RECREATIONAL FISHERIES — NORTH 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.<sup>2</sup>

**Key North Pacific Region Recreational Species<sup>3</sup>**

- Chinook salmon
- Chum salmon
- Coho salmon
- Lingcod
- Pacific cod
- Pacific halibut
- Pink salmon
- Rockfish species
- Sablefish/black cod
- 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.<sup>4</sup> 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

<sup>2</sup> Information reported is from the Sport Fish Division of the Alaska Department of Fish and Game (ADF&G) for saltwater fishing activities.  
<sup>3</sup> 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.  
<sup>4</sup> 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.]

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 2020 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 2020 trips).

In 2020, economic impacts from recreational fishing trips in the North Pacific Region generated 2,342 jobs, \$286.8 million in sales, \$95 million in income, and \$166.7 million in value-added impacts. Of the three fishing trip modes, for-hire fishing trips had the greatest economic impact, accounting for 69% of employment impacts.

Trip expenditures totaled \$223.2 million, with a large portion of the total coming from trips in the for-hire (53%) and private boat (43%) sectors.

### Participation

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

### 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 565,628 days fishing in 2020. This number represented a 23% decrease from the days spent fishing in 2011. From 2019 to 2020, there was a 32% decrease in the number of days fished.

### Harvest and Release Trends

Of the North Pacific Region's key species and species groups, Pacific halibut (390,470 fish), rockfish species (321,181 fish), and coho salmon (237,942 fish) were most frequently caught by recreational fishermen. The following text box shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2011 to 2020, sockeye salmon (8%) had the largest increases, while chum salmon (-68%), Pacific cod (-62%), and lingcod (-27%) had the largest decreases. From 2019 to 2020, Pacific cod (7%) had the largest increases, while sablefish/black cod (-58%), chum salmon (-54%), and pink salmon (-38%) had the largest decreases.

#### Harvest and Release: Largest Increases

From 2011:

- Sockeye salmon (8%)

From 2019:

- Pacific cod (7%)

#### Harvest and Release: Largest Decreases

From 2011:

- Chum salmon (-68%)
- Pacific cod (-62%)
- Lingcod (-27%)

From 2019:

- Sablefish/black cod (-58%)
- Chum salmon (-54%)
- Pink salmon (-38%)

## MARINE ECONOMY — NORTH 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.<sup>5</sup>

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.<sup>6</sup> 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

<sup>5</sup> 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/USAGDPDEFSAISMEI>).

<sup>6</sup> U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

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 2019.

In 2019, 21,399 employer establishments operated throughout Alaska (including marine and non-marine related establishments). These establishments employed 264,971 workers and had a total annual payroll of \$16.6 billion. The gross state product of Alaska was approximately \$54.5 billion in 2019.

## Seafood Sales and Processing<sup>7</sup>

**Seafood Product Preparation and Packaging:** In 2019, Alaska had 98 employer firms in the seafood product preparation and packaging sector (a 20% decrease from 2011).

**Retail Seafood Sales:** In 2019, there were 12 employer firms in the seafood retail sector in Alaska (a 20% increase from 2011).

**Wholesale Seafood Sales:** There were 35 employer firms in the seafood wholesale sector in Alaska in 2019 (a 27% decrease from 2011).

## Transportation Support and Marine Operations

Data for the transportation support and marine operations sectors in Alaska were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the state's economy. For example, in 2019, the coastal and Great Lakes freight transportation sector in Alaska accounted for \$85.7 million in payroll.

<sup>7</sup> This report has provided economic statistics (number of firms and annual receipts) for non-employer firms in the seafood sales and processing sectors in previous volumes. Currently this information is not available from the Census Bureau for 2019.





# Tables | Alaska



2020 Economic Impacts of the Alaska Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |           |           |             | Without Imports |           |           |             |
|--------------------------------------|--------------|-----------|-----------|-------------|-----------------|-----------|-----------|-------------|
|                                      | Jobs         | Sales     | Income    | Value Added | Jobs            | Sales     | Income    | Value Added |
| Total Impacts                        | 43,870       | 3,661,146 | 1,628,171 | 2,019,764   | 43,728          | 3,628,662 | 1,621,604 | 2,008,694   |
| Commercial Harvesters                | 31,670       | 2,549,300 | 1,153,182 | 1,424,749   | 31,670          | 2,549,300 | 1,153,182 | 1,424,749   |
| Seafood Processors and Dealers       | 9,524        | 920,713   | 401,778   | 498,140     | 9,501           | 918,494   | 400,808   | 496,939     |
| Importers                            | 82           | 27,057    | 4,336     | 8,248       | NA              | NA        | NA        | NA          |
| Seafood Wholesalers and Distributors | 298          | 37,374    | 12,797    | 16,710      | 283             | 35,494    | 12,153    | 15,870      |
| Retail                               | 2,296        | 126,702   | 56,077    | 71,916      | 2,274           | 125,374   | 55,461    | 71,136      |

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

| Category            | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total               | 2,021 | 1,969 | 1,878 | 1,712 | 1,768 | 1,551 | 2,003 | 1,782 | 1,754 | 1,481 |
| Finfish             | 1,310 | 1,186 | 1,225 | 1,059 | 966   | 898   | 1,355 | 1,159 | 1,162 | 866   |
| Shellfish and Other | 711   | 783   | 653   | 653   | 802   | 653   | 648   | 623   | 592   | 615   |
| Key Species         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Alaska pollock      | 402   | 453   | 406   | 400   | 509   | 417   | 457   | 451   | 388   | 420   |
| Atka mackerel       | 30    | 31    | 15    | 22    | 31    | 32    | 51    | 55    | 44    | 37    |
| Crab                | 290   | 309   | 230   | 238   | 279   | 219   | 173   | 152   | 184   | 181   |
| Flatfish            | 110   | 123   | 123   | 100   | 69    | 70    | 92    | 90    | 102   | 98    |
| Pacific cod         | 163   | 171   | 156   | 153   | 174   | 171   | 194   | 239   | 119   | 137   |
| Pacific halibut     | 205   | 145   | 111   | 107   | 111   | 117   | 116   | 83    | 93    | 66    |
| Pacific herring     | 11    | 22    | 16    | 11    | 7     | 5     | 8     | 7     | 21    | 8     |
| Rockfish            | 34    | 33    | 35    | 28    | 29    | 30    | 31    | 34    | 38    | 26    |
| Sablefish           | 140   | 120   | 82    | 86    | 86    | 86    | 113   | 86    | 68    | 44    |
| Salmon              | 612   | 533   | 680   | 546   | 455   | 381   | 745   | 553   | 673   | 449   |

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

| Category            | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total               | 5,355 | 5,346 | 5,792 | 5,671 | 6,014 | 5,586 | 6,006 | 5,404 | 5,631 | 5,062 |
| Finfish             | 2,459 | 2,356 | 2,696 | 2,433 | 2,645 | 2,155 | 2,571 | 1,992 | 2,224 | 1,771 |
| Shellfish and Other | 2,897 | 2,990 | 3,096 | 3,238 | 3,369 | 3,430 | 3,435 | 3,412 | 3,408 | 3,291 |
| Key Species         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Alaska pollock      | 2,811 | 2,872 | 3,003 | 3,146 | 3,263 | 3,355 | 3,389 | 3,364 | 3,353 | 3,230 |
| Atka mackerel       | 113   | 104   | 51    | 70    | 118   | 121   | 143   | 157   | 127   | 129   |
| Crab                | 80    | 112   | 87    | 85    | 97    | 69    | 39    | 39    | 49    | 56    |
| Flatfish            | 650   | 647   | 660   | 664   | 511   | 523   | 505   | 488   | 500   | 509   |
| Pacific cod         | 663   | 717   | 681   | 717   | 697   | 707   | 657   | 512   | 464   | 380   |
| Pacific halibut     | 41    | 32    | 29    | 22    | 23    | 23    | 25    | 20    | 23    | 21    |
| Pacific herring     | 99    | 75    | 85    | 97    | 68    | 52    | 68    | 46    | 51    | 17    |
| Rockfish            | 106   | 115   | 123   | 133   | 142   | 146   | 138   | 155   | 178   | 169   |
| Sablefish           | 29    | 31    | 30    | 26    | 24    | 22    | 26    | 27    | 29    | 32    |
| Salmon              | 738   | 612   | 1,013 | 683   | 1,041 | 543   | 986   | 557   | 827   | 490   |

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

| Species         | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------|------|------|------|------|------|------|------|------|------|------|
| Alaska pollock  | 0.14 | 0.16 | 0.14 | 0.13 | 0.16 | 0.12 | 0.13 | 0.13 | 0.12 | 0.13 |
| Atka mackerel   | 0.27 | 0.29 | 0.30 | 0.32 | 0.26 | 0.26 | 0.36 | 0.35 | 0.35 | 0.28 |
| Crab            | 3.61 | 2.76 | 2.64 | 2.79 | 2.87 | 3.19 | 4.46 | 3.88 | 3.76 | 3.22 |
| Flatfish        | 0.48 | 0.41 | 0.35 | 0.31 | 0.35 | 0.36 | 0.41 | 0.36 | 0.39 | 0.32 |
| Pacific cod     | 0.25 | 0.24 | 0.23 | 0.21 | 0.25 | 0.24 | 0.30 | 0.47 | 0.26 | 0.36 |
| Pacific halibut | 4.97 | 4.47 | 3.88 | 4.93 | 4.84 | 5.03 | 4.74 | 4.06 | 4.02 | 3.10 |
| Pacific herring | 0.11 | 0.29 | 0.19 | 0.12 | 0.10 | 0.10 | 0.12 | 0.15 | 0.42 | 0.46 |
| Rockfish        | 0.32 | 0.29 | 0.28 | 0.21 | 0.21 | 0.21 | 0.22 | 0.22 | 0.21 | 0.15 |
| Sablefish       | 4.84 | 3.82 | 2.72 | 3.37 | 3.62 | 3.93 | 4.43 | 3.15 | 2.36 | 1.35 |
| Salmon          | 0.83 | 0.87 | 0.67 | 0.80 | 0.44 | 0.70 | 0.76 | 0.99 | 0.81 | 0.92 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Alaska Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income | Value Added |
|------------------------------|-------|---------|--------|-------------|
| For-Hire                     | 1,612 | 169,853 | 58,890 | 95,393      |
| Private Boat                 | 662   | 107,182 | 32,891 | 65,221      |
| Shore                        | 69    | 9,746   | 3,263  | 6,058       |
| Total Durable Expenditures   | NA    | NA      | NA     | NA          |
| Total State Economic Impacts | 2,342 | 286,781 | 95,043 | 166,672     |

**2020 Angler Trip Expenditures by Fishing Mode (thousands of dollars)<sup>2</sup>**

| Total Trip | For-Hire | Private Boat | Shore |
|------------|----------|--------------|-------|
| 223,196    | 117,958  | 96,711       | 8,526 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category            | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers       | 286  | 278  | 307  | 292  | 309  | 296  | 295  | 296  | NA   | NA   |
| Coastal/Non-Coastal | 124  | 118  | 129  | 122  | 128  | 115  | 117  | 110  | NA   | NA   |
| Out-of-State        | 161  | 160  | 178  | 170  | 181  | 181  | 178  | 186  | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)<sup>3</sup>**

| Category           | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------|------|------|------|------|------|------|------|------|------|------|
| Angler Days Fished | 737  | 735  | 897  | 876  | 890  | 782  | 812  | 774  | 830  | 566  |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>4,5,6</sup>**

| Species             | Category | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------|----------|------|------|------|------|------|------|------|------|------|------|
| Chinook salmon      | H        | 85   | 63   | 81   | 111  | 111  | 101  | 85   | 62   | 64   | 74   |
|                     | R        | 95   | 62   | 120  | 94   | 116  | 87   | 106  | 74   | 92   | 65   |
| Chum salmon         | H        | 21   | 11   | 25   | 12   | 13   | 10   | 10   | 6    | 11   | 6    |
|                     | R        | 38   | 20   | 39   | 19   | 25   | 22   | 22   | 16   | 29   | 13   |
| Coho salmon         | H        | 386  | 263  | 493  | 390  | 479  | 263  | 468  | 297  | 338  | 200  |
|                     | R        | 88   | 50   | 122  | 60   | 99   | 41   | 71   | 45   | 57   | 38   |
| Lingcod             | H        | 33   | 33   | 34   | 32   | 28   | 26   | 22   | 29   | 28   | 23   |
|                     | R        | 36   | 36   | 33   | 29   | 27   | 23   | 27   | 43   | 41   | 27   |
| Pacific cod         | H        | 48   | 42   | 38   | 61   | 58   | 44   | 20   | 15   | 26   | 23   |
|                     | R        | 76   | 50   | 48   | 73   | 75   | 43   | 24   | 12   | 18   | 24   |
| Pacific halibut     | H        | 394  | 388  | 454  | 408  | 420  | 400  | 352  | 352  | 352  | 261  |
|                     | R        | 311  | 324  | 324  | 251  | 271  | 244  | 199  | 184  | 185  | 130  |
| Pink salmon         | H        | 72   | 78   | 113  | 69   | 110  | 103  | 102  | 70   | 121  | 70   |
|                     | R        | 135  | 141  | 203  | 118  | 204  | 126  | 170  | 104  | 151  | 97   |
| Rockfish species    | H        | 211  | 230  | 256  | 335  | 332  | 347  | 279  | 309  | 330  | 196  |
|                     | R        | 122  | 121  | 121  | 148  | 143  | 157  | 129  | 150  | 191  | 126  |
| Sablefish/black cod | H        | 10   | 18   | 18   | 12   | 23   | 15   | 22   | 26   | 26   | 10   |
|                     | R        | 8    | 9    | 6    | 6    | 13   | 4    | 6    | 8    | 8    | 4    |
| Sockeye salmon      | H        | 31   | 28   | 40   | 35   | 33   | 34   | 36   | 38   | 57   | 38   |
|                     | R        | 10   | 8    | 13   | 12   | 9    | 7    | 10   | 7    | 11   | 7    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> All data reported in this table are from saltwater fishing activities.<sup>3</sup> Alaska effort is measured in 'Days Fished,' not in 'Angler Trips.'<sup>4</sup> 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.<sup>5</sup> 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.<sup>6</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Alaska State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 21,399 (0.3%)                       | 264,971 (0.2%)                 | 16.6 (0.2%)                          | 29.2 (0.3%)                                 | 54.5                                      | ds                                   |

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)<sup>3</sup>

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 26    | 25    | 35    | 31    | 30    | 22    | 20    | 20    | NA   |
|   | Receipts  | 2,882 | 2,708 | 3,268 | 2,472 | 4,091 | 1,743 | 1,792 | 2,183 | NA   |
| Seafood sales, retail                     | Firms     | 15    | 15    | 11    | 17    | 11    | 13    | 20    | 15    | NA   |
|   | Receipts  | 903   | 1,626 | 1,458 | 1,539 | 761   | 1,483 | 1,384 | 1,830 | NA   |

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

| Sector                                    | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    |
|---|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Seafood product preparation and packaging | Establishments | 122     | 116     | 115     | 108     | 109     | 104     | 94      | 100     | 98      |
|   | Employees      | 8,578   | 8,289   | 8,638   | 9,115   | 8,472   | 8,654   | 8,553   | 7,782   | 7,560   |
|   | Payroll        | 296,851 | 297,284 | 308,961 | 337,171 | 356,855 | 355,129 | 347,495 | 352,136 | 394,463 |
| Seafood Sales, Wholesale                  | Establishments | 48      | 47      | 43      | 43      | 37      | 33      | 36      | 39      | 35      |
|   | Employees      | 159     | 143     | 102     | 120     | 94      | 79      | 277     | 248     | 462     |
|   | Payroll        | 9,985   | 10,943  | 7,205   | 7,024   | 7,306   | 6,037   | 22,658  | 24,231  | 26,425  |
| Seafood sales, retail                     | Establishments | 10      | 15      | 14      | 14      | 15      | 16      | 14      | 15      | 12      |
|   | Employees      | ds      | ds      | ds      | ds      | 64      | 77      | 53      | 55      | 50      |
|   | Payroll        | 2,487   | 2,019   | 2,337   | 2,687   | 2,498   | 2,549   | 1,798   | 1,945   | 2,052   |

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

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018    | 2019   |
|--|----------------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Ship and Boat Building                         | Establishments | 23     | 23     | 20     | 27     | 23     | 23     | 17     | 16      | 15     |
|  | Employees      | ds     | ds     | ds     | 335    | 344    | 394    | 327    | 270     | 288    |
|  | Payroll        | ds     | ds     | ds     | 15,845 | 17,748 | 18,762 | 14,505 | 14,765  | 18,106 |
| Deep Sea Freight Transportation                | Establishments | 1      | 2      | 3      | 6      | 5      | 5      | 4      | 4       | 4      |
|  | Employees      | ds     | ds     | ds     | ds     | ds     | ds     | ds     | 28      | 23     |
|  | Payroll        | ds     | ds     | ds     | ds     | ds     | ds     | ds     | 8,721   | 8,892  |
| Deep Sea Passenger Transportation              | Establishments | 1      | 1      | 2      | 1      | 1      | 1      | 3      | NA      | 3      |
|  | Employees      | ds     | ds     | ds     | ds     | ds     | ds     | ds     | NA      | 24     |
|  | Payroll        | ds     | ds     | ds     | ds     | ds     | ds     | ds     | NA      | 931    |
| Coastal and Great Lakes Freight Transportation | Establishments | 63     | 47     | 53     | 72     | 74     | 79     | 90     | 89      | 89     |
|  | Employees      | ds     | ds     | ds     | ds     | 1,067  | 966    | 981    | 1,201   | 978    |
|  | Payroll        | ds     | ds     | 82,692 | 89,020 | 89,281 | 86,849 | 86,178 | 103,960 | 85,706 |
| Port and Harbor Operations                     | Establishments | 8      | 18     | 13     | 12     | 11     | 11     | 9      | 10      | 10     |
|  | Employees      | ds     | 582    | ds     | ds     | ds     | 14     | ds     | 30      | 26     |
|  | Payroll        | 1,790  | 25,545 | ds     | ds     | ds     | 904    | ds     | 1,898   | 2,130  |
| Marine Cargo Handling                          | Establishments | 14     | 8      | 9      | 9      | 9      | 8      | 7      | 7       | 7      |
|  | Employees      | ds     | 334    | ds     | ds     | 437    | 410    | 436    | 402     | 396    |
|  | Payroll        | ds     | 26,481 | ds     | ds     | 32,326 | 32,171 | 31,439 | 31,676  | 33,660 |
| Navigational Services to Shipping              | Establishments | 22     | 21     | 22     | 25     | 24     | 23     | 28     | 30      | 32     |
|  | Employees      | 321    | 97     | 103    | 138    | 140    | 126    | 168    | 174     | 149    |
|  | Payroll        | 27,156 | 9,938  | 10,805 | 13,015 | 13,596 | 14,221 | 17,063 | 19,971  | 19,061 |
| Marinas  | Establishments | 14     | 13     | 12     | 11     | 11     | 10     | 9      | 9       | 10     |
|  | Employees      | ds     | ds     | ds     | ds     | 30     | 33     | 43     | 40      | 48     |
|  | Payroll        | 2,053  | 1,613  | 1,449  | ds     | 1,423  | 1,568  | 1,818  | 1,584   | 2,024  |

<sup>1</sup> ds = Data are suppressed.

<sup>2</sup> 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.

<sup>3</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

# Pacific Region

- California
- Oregon
- Washington



Recreational fishermen.  
Photo: NOAA Fisheries

## 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

Six of the stocks or stock complexes covered in these FMPs were listed as overfished in 2020: Chinook salmon (Sacramento River fall stock and Klamath River fall stock); coho salmon (Queets stock and Juan de Fuca stock); Pacific bluefin tuna (Pacific stock); and Pacific sardine (northern subpopulation). The Snohomish coho salmon stock was removed from the overfished stocks in 2020. Three stocks/complexes were subject to overfishing in 2019: Pacific bluefin tuna (Pacific stock); swordfish (Eastern Pacific stock); and yellowfin tuna (Eastern Pacific stock).<sup>1</sup>

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;<sup>2</sup> only the yelloweye rockfish stock is currently managed under a rebuilding plan.<sup>3</sup>

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. More recently, there were 10 fishery disaster determinations related to Pacific Region salmon stocks from 2015 through 2020.<sup>4</sup>

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

<sup>1</sup> 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.

<sup>2</sup> 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).]

<sup>3</sup> 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.]

<sup>4</sup> For additional information on fishery disaster determinations, see <https://www.fisheries.noaa.gov/national/funding-and-financial-services/fishery-disaster-determinations>.

hook gear, but there are allocations to the trawl sector for bycatch, including individual bycatch quotas, in the Pacific groundfish trawl IFQ.

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 fishery is 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 \$66.7 million in 2019. 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 2019 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 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 2020 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 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.

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.<sup>5</sup>

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 2020, the commercial fishing and seafood industry in California generated the largest employment impacts in the Pacific Region with 129,938 full- and part-time jobs. California also generated the largest sales impacts (\$26.2 billion), value-added impacts (\$9.3 billion), and income impacts (\$5.6 billion).

## Landings Revenue

In 2020, landings revenue in the Pacific Region totaled \$582.1 million, a 22% decrease from 2011 (a 33% decrease in real terms after adjusting for inflation) and a 19% decrease from 2019. Landings revenue was highest in Washington (\$262.6 million), followed by Oregon (\$154.9 million).

Shellfish and other landings revenue accounted for 75% of all landings revenue. In 2020, crab (\$181.2 million), other shellfish (\$113.4 million), and shrimp (\$41.8 million) had the highest landings revenue in this region. Together, these top three species accounted for 58% of total landings revenue.

From 2011 to 2020, rockfish (94%, 68% in real terms) and shrimp (4%, -10% in real terms) had the largest increases, while sablefish (-74%, -78% in real terms), squid (-52%, -58% in real terms), and albacore tuna (-44%, -52% in real terms) had the largest decreases. From 2019 to 2020, squid (97%) and shrimp (2%) had the largest increases, while sablefish (-44%), Pacific hake (whiting) (-43%), and rockfish (-26%) had the largest decreases.

<sup>5</sup> 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](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).]

**Commercial Revenue: Largest Increases***From 2011:*

- Rockfish (94%, 68% in real terms)
- Shrimp (4%, -10% in real terms)

*From 2019:*

- Squid (97%)
- Shrimp (2%)

**Commercial Revenue: Largest Decreases***From 2011:*

- Sablefish (-74%, -78% in real terms)
- Squid (-52%, -58% in real terms)
- Albacore tuna (-44%, -52% in real terms)

*From 2019:*

- Sablefish (-44%)
- Pacific hake (whiting) (-43%)
- Rockfish (-26%)

**Commercial Landings: Largest Increases***From 2011:*

- Rockfish (498%)
- Pacific hake (whiting) (8%)

*From 2019:*

- Squid (71%)
- Shrimp (44%)

**Commercial Landings: Largest Decreases***From 2011:*

- Squid (-79%)
- Salmon (-76%)
- Sablefish (-39%)

*From 2019:*

- Other shellfish (-38%)
- Sablefish (-26%)
- Pacific hake (whiting) (-22%)

**Landings**

In 2020, Pacific Region commercial fishermen landed over 942.8 million pounds of finfish and shellfish. This represents a 21% decrease from 2011 and a 7% decrease from 2019. Pacific hake (whiting) contributed the highest landings volume in the region, accounting for 58% of total landing weight.

From 2011 to 2020, rockfish (498%) and Pacific hake (whiting) (8%) had the largest increases, while squid (-79%), salmon (-76%), and sablefish (-39%) had the largest decreases. From 2019 to 2020, squid (71%) and shrimp (44%) had the largest increases, while other shellfish (-38%), sablefish (-26%), and Pacific hake (whiting) (-22%) had the largest decreases.

**Prices**

In 2020, other shellfish (\$12.37 per pound) received the highest ex-vessel price in the region. Landings of Pacific hake (whiting) (\$0.07 per pound) had the lowest ex-vessel price. From 2011 to 2020, squid (133%, 101% in real terms), salmon (132%, 100% in real terms), and other shellfish (50%, 30% in real terms) had the largest increases, while rockfish (-68%, -72% in real terms), sablefish (-58%, -64% in real terms), and Pacific hake (whiting) (-40%, -48% in real terms) had the largest decreases. From 2019 to 2020, other shellfish (21%), squid (15%), and crab (4%) had the largest increases, while shrimp (-29%), Pacific hake (whiting) (-27%), and sablefish (-25%) 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.<sup>6</sup>

<sup>6</sup> Pacific recreational catch and effort estimates are based on multiple data sources. See [Data Sources](#) section.

## Key Pacific Region Recreational Species<sup>7</sup>

- Black rockfish
- Bocaccio
- Cabezon
- Canary rockfish
- Lingcod
- Mackerels<sup>8</sup>
- Pacific halibut
- Salmon<sup>9</sup>
- Surfperches<sup>10</sup>
- Tunas

## Economic Impacts and Expenditures

The economic contribution of recreational fishing activities in the Pacific Region is based on spending by recreational anglers.<sup>11</sup> 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 2020 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 2020 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the Pacific Region were generated in California (5,083 jobs), followed by Washington (1,255 jobs) and Oregon (569 jobs). The largest sales impacts were observed in California (\$718.1 million), followed by Washington (\$180.9 million) and Oregon (\$59 million). The biggest income impacts were generated in California (\$176.3 million), followed by Washington (\$59.6 million) and Oregon (\$22.5 million). The greatest value-added impacts were in California (\$301.6 million), followed by Washington (\$108.1 million) and Oregon (\$36.2 million).

A large portion of the approximately 473.1 million in trip expenses came from trips in the Private Boat (46.8%) and For-Hire (40.6%) sectors.

## Participation

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

## Fishing Trips

In 2020, recreational fishermen took 2.3 million fishing trips in the Pacific Region. This number represented a 56% decrease from 2011 and a 45% decrease from 2019. The largest proportions of trips were taken in the private boat mode (46%) and shore (32%). States with the highest number of recorded trips in the Pacific Region were California (1.6 million trips) and Washington (496,305 trips).

## Harvest and Release Trends

Of the Pacific Region's key species and species groups, black rockfish (620,496 fish), mackerels (559,278 fish), and salmon (415,853 fish), were most frequently caught by recreational fishermen. The following text box shows

<sup>7</sup> 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.

<sup>8</sup> Bullet mackerel, chub mackerel, frigate mackerel, mackerel family, and Pacific (chub) mackerel

<sup>9</sup> Chinook salmon, chum salmon, coho salmon, pink salmon, and sockeye salmon

<sup>10</sup> Barred surfperch, black perch, calico surfperch, dwarf perch, kelp perch, pile perch, pink seaperch, rainbow seaperch, redbtail surfperch, rubberlip seaperch, sharpnose seaperch, shiner perch, silver surfperch, spotfin surfperch, striped seaperch, surfperch family, walleye surfperch, and white seaperch.

<sup>11</sup> 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 species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2011 to 2020, Pacific halibut (93%), tunas (87%), and canary rockfish (55%) had the largest increases, while surfperches (-88%), bocaccio (-67%), and cabezon (-43%) had the largest decreases. From 2019 to 2020, surfperches (24%) had the largest increases, while bocaccio (-72%), tunas (-61%), and mackerels (-56%) had the largest decreases.

#### Harvest and Release: Largest Increases

From 2011:

- Pacific halibut (93%)
- Tunas (87%)
- Canary rockfish (55%)

From 2019:

- Surfperches (24%)

#### Harvest and Release: Largest Decreases

From 2011:

- Surfperches (-88%)
- Bocaccio (-67%)
- Cabezon (-43%)

From 2019:

- Bocaccio (-72%)
- Tunas (-61%)
- Mackerels (-56%)

## 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.<sup>12</sup>

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.<sup>13</sup> 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 2019. California had a CFLQ value of 0.51.

In 2019, 1.3 million employer establishments operated throughout the entire Pacific Region (including marine and non-marine related establishments). These establishments employed 20.1 million workers and had a total annual payroll of \$1.4 trillion. The combined gross state product of California, Oregon, and Washington was approximately \$3.9 trillion in 2019.

### Seafood Sales and Processing<sup>14</sup>

**Seafood Product Preparation and Packaging:** In 2019, there were 143 employer firms in the seafood product preparation and packaging sector in the Pacific Region (an 11% decrease from 2011). The greatest number of establishments in this sector was in Washington (79), followed by California (39) and Oregon (25).

**Retail Seafood Sales:** In 2019, there were 205 employer firms in the seafood retail sector in the Pacific Region (a 7% decrease from 2011). The greatest number of establishments in this sector was in California (155), followed by Washington (29) and Oregon (21).

**Wholesale Seafood Sales:** There were 456 employer firms in the seafood wholesale sector in the Pacific Region in 2019 (a 15% decrease from 2011). The greatest number of establishments in this sector was in California (325), followed by Washington (111) and Oregon (20).

<sup>12</sup> 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/USAGDPDEFALSM1>).

<sup>13</sup> U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

<sup>14</sup> This report has provided economic statistics (number of firms and annual receipts) for non-employer firms in the seafood sales and processing sectors in previous volumes. Currently this information is not available from the Census Bureau for 2019.

### 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 2019, the ship and boat building sector in the Pacific Region accounted for \$979.8 million in payroll.

# Tables | Pacific Region



**2020 Economic Impacts of the Pacific Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>**

| State      | Landings Revenue | With Imports |            |           |             | Without Imports |           |         |             |
|------------|------------------|--------------|------------|-----------|-------------|-----------------|-----------|---------|-------------|
|            |                  | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales     | Income  | Value Added |
| California | 143,022          | 129,938      | 26,242,840 | 5,552,074 | 9,273,696   | 8,747           | 782,559   | 292,502 | 402,944     |
| Oregon     | 154,883          | 13,508       | 1,139,196  | 386,127   | 546,785     | 11,651          | 730,262   | 302,460 | 405,997     |
| Washington | 262,621          | 62,157       | 9,718,293  | 2,492,442 | 3,846,751   | 17,368          | 1,363,755 | 564,325 | 764,813     |

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

| Category               | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total                  | 747,612 | 726,833 | 855,713 | 802,066 | 640,998 | 768,491 | 775,542 | 776,719 | 715,263 | 582,096 |
| Finfish                | 245,002 | 230,929 | 262,283 | 248,307 | 182,814 | 207,060 | 232,695 | 203,137 | 204,168 | 147,264 |
| Shellfish and Other    | 502,610 | 495,904 | 593,430 | 553,759 | 458,183 | 561,431 | 542,847 | 573,582 | 511,095 | 434,832 |
| Key Species            | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Albacore tuna          | 43,347  | 45,851  | 41,930  | 32,792  | 29,374  | 37,657  | 34,812  | 24,929  | 27,838  | 24,129  |
| Crab                   | 182,318 | 177,866 | 250,431 | 199,104 | 105,290 | 230,185 | 209,323 | 237,844 | 207,403 | 181,176 |
| Flatfish               | 16,921  | 17,438  | 20,782  | 19,422  | 20,626  | 22,600  | 24,464  | 21,862  | 21,810  | 16,432  |
| Other shellfish        | 119,727 | 117,687 | 127,414 | 125,272 | 139,850 | 143,085 | 146,578 | 150,224 | 151,951 | 113,416 |
| Pacific hake (whiting) | 56,739  | 48,635  | 64,877  | 64,111  | 25,206  | 46,843  | 60,438  | 48,307  | 64,648  | 36,789  |
| Rockfish               | 5,230   | 5,714   | 5,552   | 5,950   | 7,058   | 5,647   | 10,247  | 12,682  | 13,738  | 10,150  |
| Sablefish              | 44,851  | 28,334  | 19,423  | 24,489  | 28,680  | 31,632  | 34,011  | 25,164  | 20,685  | 11,526  |
| Salmon                 | 53,573  | 47,865  | 76,760  | 70,590  | 47,226  | 40,135  | 42,307  | 45,722  | 34,513  | 29,894  |
| Shrimp                 | 40,285  | 40,073  | 42,193  | 60,825  | 87,280  | 48,083  | 29,691  | 49,122  | 40,899  | 41,820  |
| Squid                  | 66,520  | 63,922  | 73,732  | 72,915  | 24,466  | 40,264  | 68,704  | 38,841  | 16,373  | 32,184  |

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

| Category               | 2011      | 2012      | 2013      | 2014      | 2015    | 2016    | 2017      | 2018      | 2019      | 2020    |
|------------------------|-----------|-----------|-----------|-----------|---------|---------|-----------|-----------|-----------|---------|
| Total                  | 1,200,351 | 1,097,077 | 1,278,389 | 1,227,684 | 771,849 | 965,589 | 1,196,998 | 1,108,822 | 1,011,523 | 942,795 |
| Finfish                | 731,187   | 711,818   | 838,605   | 805,863   | 517,105 | 708,984 | 926,495   | 759,872   | 845,888   | 668,557 |
| Shellfish and Other    | 469,164   | 385,258   | 439,784   | 421,821   | 254,745 | 256,605 | 270,503   | 348,950   | 165,634   | 274,238 |
| Key Species            | -         | -         | -         | -         | -       | -       | -         | -         | -         | -       |
| Albacore tuna          | 24,358    | 30,722    | 28,511    | 27,315    | 24,899  | 23,009  | 16,452    | 15,323    | 16,722    | 15,806  |
| Crab                   | 66,682    | 53,280    | 87,594    | 52,177    | 22,795  | 66,568  | 60,717    | 67,923    | 57,290    | 47,894  |
| Flatfish               | 27,347    | 26,871    | 30,493    | 25,651    | 26,291  | 28,567  | 30,666    | 25,293    | 22,761    | 18,206  |
| Other shellfish        | 14,556    | 14,590    | 14,213    | 14,617    | 15,657  | 13,891  | 14,206    | 14,454    | 14,871    | 9,166   |
| Pacific hake (whiting) | 508,267   | 352,393   | 514,495   | 581,576   | 339,488 | 577,353 | 778,901   | 586,773   | 697,509   | 546,519 |
| Rockfish               | 5,679     | 6,588     | 6,277     | 7,075     | 8,861   | 7,242   | 23,400    | 35,382    | 35,330    | 33,981  |
| Sablefish              | 14,161    | 11,687    | 9,126     | 9,757     | 11,395  | 11,923  | 12,214    | 11,588    | 11,701    | 8,688   |
| Salmon                 | 42,222    | 24,709    | 57,208    | 37,034    | 25,980  | 18,902  | 22,597    | 19,868    | 11,663    | 10,151  |
| Shrimp                 | 66,739    | 66,406    | 71,451    | 93,380    | 105,088 | 55,257  | 35,776    | 52,269    | 41,453    | 59,743  |
| Squid                  | 267,936   | 215,521   | 230,230   | 229,553   | 81,234  | 84,594  | 137,636   | 80,210    | 32,508    | 55,573  |

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

| Species                | 2011 | 2012 | 2013 | 2014 | 2015 | 2016  | 2017  | 2018  | 2019  | 2020  |
|------------------------|------|------|------|------|------|-------|-------|-------|-------|-------|
| Albacore tuna          | 1.78 | 1.49 | 1.47 | 1.20 | 1.18 | 1.64  | 2.12  | 1.63  | 1.66  | 1.53  |
| Crab                   | 2.73 | 3.34 | 2.86 | 3.82 | 4.62 | 3.46  | 3.45  | 3.50  | 3.62  | 3.78  |
| Flatfish               | 0.62 | 0.65 | 0.68 | 0.76 | 0.78 | 0.79  | 0.80  | 0.86  | 0.96  | 0.90  |
| Other shellfish        | 8.23 | 8.07 | 8.96 | 8.57 | 8.93 | 10.30 | 10.32 | 10.39 | 10.22 | 12.37 |
| Pacific hake (whiting) | 0.11 | 0.14 | 0.13 | 0.11 | 0.07 | 0.08  | 0.08  | 0.08  | 0.09  | 0.07  |
| Rockfish               | 0.92 | 0.87 | 0.88 | 0.84 | 0.80 | 0.78  | 0.44  | 0.36  | 0.39  | 0.30  |
| Sablefish              | 3.17 | 2.42 | 2.13 | 2.51 | 2.52 | 2.65  | 2.78  | 2.17  | 1.77  | 1.33  |
| Salmon                 | 1.27 | 1.94 | 1.34 | 1.91 | 1.82 | 2.12  | 1.87  | 2.30  | 2.96  | 2.95  |
| Shrimp                 | 0.60 | 0.60 | 0.59 | 0.65 | 0.83 | 0.87  | 0.83  | 0.94  | 0.99  | 0.70  |
| Squid                  | 0.25 | 0.30 | 0.32 | 0.32 | 0.30 | 0.48  | 0.50  | 0.48  | 0.50  | 0.58  |

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

**2020 Economic Impacts of Pacific Recreational Fishing (thousands of dollars; number of jobs)<sup>1,2</sup>**

| State      | Trips | Jobs  | Sales   | Income  |
|------------|-------|-------|---------|---------|
| California | 1,611 | 5,083 | 718,123 | 176,349 |
| Oregon     | 195   | 569   | 59,049  | 22,525  |
| Washington | 496   | 1,255 | 180,873 | 59,645  |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore |
|------------|----------|--------------|-------|
| 176,625    | 39,517   | 137,107      | NA    |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Total Anglers | 1,575 | 1,402 | 1,766 | 1,736 | 1,662 | 1,181 | 1,316 | 1,157 | NA   | NA   |
| Coastal       | 1,193 | 1,056 | 1,382 | 1,307 | 1,236 | 849   | 966   | 827   | NA   | NA   |
| Non-Coastal   | 382   | 346   | 384   | 429   | 426   | 332   | 350   | 330   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)<sup>3</sup>**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020 |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Total Trips  | 5,247 | 6,574 | 6,616 | 6,362 | 4,676 | 4,161 | 4,745 | 4,132 | 4,221 | 691  |
| For-Hire     | 674   | 681   | 746   | 1,077 | 848   | 751   | 776   | 770   | 785   | 87   |
| Private Boat | 1,528 | 1,666 | 1,757 | 1,680 | 1,444 | 1,033 | 1,596 | 1,098 | 1,250 | 604  |
| Shore        | 3,045 | 4,227 | 4,113 | 3,606 | 2,385 | 2,377 | 2,373 | 2,264 | 2,187 | 730  |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>4,5</sup>**

| Species         | Category | 2011  | 2012  | 2013  | 2014 | 2015  | 2016  | 2017  | 2018  | 2019 | 2020 |
|-----------------|----------|-------|-------|-------|------|-------|-------|-------|-------|------|------|
| Black rockfish  | H        | 609   | 734   | 1,056 | 954  | 985   | 904   | 710   | 593   | 621  | 511  |
|                 | R        | 77    | 75    | 125   | 117  | 147   | 115   | 162   | 122   | 117  | 110  |
| Bocaccio        | H        | 166   | 211   | 187   | 144  | 136   | 84    | 138   | 159   | 198  | 53   |
|                 | R        | < 1   | 2     | 13    | 6    | 2     | 3     | < 1   | 3     | 3    | 3    |
| Cabezon         | H        | 33    | 34    | 29    | 31   | 35    | 34    | 28    | 21    | 22   | 15   |
|                 | R        | 25    | 35    | 35    | 23   | 20    | 21    | 23    | 24    | 22   | 18   |
| Canary rockfish | H        | 47    | 45    | 39    | 47   | 61    | 53    | 142   | 121   | 136  | 110  |
|                 | R        | 38    | 41    | 62    | 61   | 93    | 73    | 42    | 24    | 22   | 22   |
| Lingcod         | H        | 159   | 200   | 264   | 273  | 358   | 339   | 296   | 251   | 207  | 170  |
|                 | R        | 230   | 229   | 213   | 186  | 200   | 206   | 143   | 125   | 120  | 99   |
| Mackerels       | H        | 1,111 | 836   | 583   | 927  | 1,685 | 1,011 | 1,419 | 1,188 | 831  | 344  |
|                 | R        | 532   | 409   | 333   | 572  | 529   | 589   | 769   | 636   | 433  | 215  |
| Pacific halibut | H        | 10    | 14    | 15    | 16   | 14    | 15    | 12    | 12    | 23   | 23   |
|                 | R        | 3     | 3     | 3     | 4    | 4     | 4     | 2     | 3     | 3    | 2    |
| Salmon          | H        | 517   | 385   | 702   | 773  | 740   | 158   | 319   | 272   | 400  | 208  |
|                 | R        | 335   | 227   | 372   | 312  | 416   | 124   | 290   | 267   | 333  | 208  |
| Surfperches     | H        | 824   | 1,028 | 812   | 985  | 1,227 | 819   | 871   | 91    | 74   | 80   |
|                 | R        | 714   | 984   | 819   | 998  | 913   | 521   | 700   | 81    | 76   | 105  |
| Tunas           | H        | 46    | 118   | 79    | 123  | 115   | 85    | 57    | 64    | 221  | 85   |
|                 | R        | < 1   | < 1   | < 1   | < 1  | < 1   | < 1   | < 1   | < 1   | < 1  | 1    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> For relevant tables on this page, California estimates on catch and effort is not available for April through June 2020 due to COVID-19 impacts. Expenditure, impact, effort, and catch estimates are based on 9 months of data for 2020.<sup>3</sup> Oregon and Washington trip estimates are not available for the shore mode.<sup>4</sup> 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.<sup>5</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.





# Tables | California



2020 Economic Impacts of the California Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |            |           |             | Without Imports |         |         |             |
|--------------------------------------|--------------|------------|-----------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 129,938      | 26,242,840 | 5,552,074 | 9,273,696   | 8,747           | 782,559 | 292,502 | 402,944     |
| Commercial Harvesters                | 2,521        | 286,556    | 97,590    | 143,252     | 2,521           | 286,556 | 97,590  | 143,252     |
| Seafood Processors and Dealers       | 4,231        | 520,844    | 193,133   | 256,269     | 1,056           | 130,013 | 48,210  | 63,970      |
| Importers                            | 60,778       | 20,123,660 | 3,225,200 | 6,134,573   | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 11,903       | 2,019,851  | 655,139   | 915,275     | 359             | 60,988  | 19,781  | 27,636      |
| Retail                               | 50,504       | 3,291,928  | 1,381,011 | 1,824,327   | 4,810           | 305,002 | 126,920 | 168,086     |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 201,257 | 232,204 | 257,039 | 235,339 | 143,051 | 205,046 | 211,953 | 197,429 | 163,988 | 143,022 |
| Finfish             | 46,257  | 46,025  | 53,885  | 49,786  | 44,511  | 39,662  | 46,786  | 45,554  | 52,386  | 45,417  |
| Shellfish and Other | 155,000 | 186,179 | 203,155 | 185,553 | 98,540  | 165,384 | 165,168 | 151,875 | 111,601 | 97,605  |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Crab                | 53,638  | 88,095  | 92,705  | 70,448  | 20,324  | 85,286  | 49,209  | 65,436  | 54,458  | 32,490  |
| Pacific sardine     | 4,623   | 4,321   | 1,502   | 2,003   | 343     | 96      | 61      | 77      | 211     | 496     |
| Rockfish            | 2,624   | 2,541   | 2,688   | 2,718   | 3,173   | 2,426   | 3,267   | 3,659   | 4,151   | 3,674   |
| Sablefish           | 15,122  | 8,990   | 7,064   | 9,425   | 8,909   | 8,791   | 9,303   | 6,715   | 6,342   | 4,511   |
| Salmon              | 5,095   | 12,887  | 22,947  | 12,126  | 8,115   | 5,213   | 4,792   | 7,678   | 16,480  | 13,895  |
| Sea urchins         | 8,206   | 9,008   | 10,771  | 9,698   | 7,325   | 7,283   | 6,436   | 5,722   | 5,164   | 4,699   |
| Shrimp              | 8,537   | 8,338   | 9,377   | 11,752  | 14,048  | 10,808  | 9,790   | 12,409  | 9,669   | 7,518   |
| Spiny lobster       | 12,911  | 13,698  | 13,629  | 17,982  | 15,740  | 13,594  | 13,177  | 14,125  | 11,334  | 13,848  |
| Squid               | 66,519  | 63,920  | 73,730  | 72,903  | 24,453  | 39,122  | 68,703  | 35,768  | 13,487  | 26,115  |
| Swordfish           | 3,319   | 2,090   | 2,701   | 3,067   | 3,641   | 3,763   | 3,948   | 3,282   | 2,530   | 2,751   |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 408,584 | 354,542 | 365,710 | 361,285 | 187,937 | 168,704 | 213,340 | 181,482 | 112,498 | 107,049 |
| Finfish             | 92,452  | 89,087  | 75,651  | 85,414  | 79,407  | 43,686  | 47,975  | 71,784  | 57,963  | 44,965  |
| Shellfish and Other | 316,131 | 265,454 | 290,059 | 275,871 | 108,531 | 125,018 | 165,365 | 109,698 | 54,534  | 62,084  |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Crab                | 22,157  | 27,548  | 33,441  | 20,837  | 5,361   | 28,013  | 14,176  | 20,293  | 17,064  | 9,648   |
| Pacific sardine     | 61,098  | 50,803  | 15,594  | 17,133  | 3,751   | 954     | 953     | 720     | 4,095   | 6,314   |
| Rockfish            | 1,478   | 1,472   | 1,547   | 1,421   | 1,408   | 946     | 2,166   | 3,055   | 3,658   | 3,676   |
| Sablefish           | 5,657   | 3,928   | 3,311   | 4,132   | 4,068   | 3,853   | 3,930   | 3,271   | 3,183   | 2,819   |
| Salmon              | 1,139   | 2,892   | 4,353   | 2,577   | 1,359   | 707     | 571     | 1,065   | 2,964   | 2,210   |
| Sea urchins         | 11,573  | 12,124  | 13,967  | 12,507  | 8,496   | 5,889   | 4,204   | 3,245   | 2,390   | 1,897   |
| Shrimp              | 8,223   | 7,208   | 9,527   | 9,920   | 9,524   | 4,818   | 5,210   | 7,082   | 4,298   | 1,583   |
| Spiny lobster       | 752     | 877     | 756     | 943     | 768     | 666     | 700     | 872     | 825     | 726     |
| Squid               | 267,895 | 215,470 | 230,189 | 229,485 | 81,144  | 81,773  | 137,594 | 73,145  | 27,228  | 45,085  |
| Swordfish           | 1,344   | 888     | 1,175   | 1,265   | 1,376   | 1,387   | 1,511   | 1,357   | 929     | 1,024   |

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

| Species         | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Crab            | 2.42  | 3.20  | 2.77  | 3.38  | 3.79  | 3.04  | 3.47  | 3.22  | 3.19  | 3.37  |
| Pacific sardine | 0.08  | 0.09  | 0.10  | 0.12  | 0.09  | 0.10  | 0.06  | 0.11  | 0.05  | 0.08  |
| Rockfish        | 1.77  | 1.73  | 1.74  | 1.91  | 2.25  | 2.56  | 1.51  | 1.20  | 1.13  | 1.00  |
| Sablefish       | 2.67  | 2.29  | 2.13  | 2.28  | 2.19  | 2.28  | 2.37  | 2.05  | 1.99  | 1.60  |
| Salmon          | 4.47  | 4.46  | 5.27  | 4.71  | 5.97  | 7.37  | 8.39  | 7.21  | 5.56  | 6.29  |
| Sea urchins     | 0.71  | 0.74  | 0.77  | 0.78  | 0.86  | 1.24  | 1.53  | 1.76  | 2.16  | 2.48  |
| Shrimp          | 1.04  | 1.16  | 0.98  | 1.18  | 1.48  | 2.24  | 1.88  | 1.75  | 2.25  | 4.75  |
| Spiny lobster   | 17.17 | 15.62 | 18.02 | 19.06 | 20.49 | 20.40 | 18.84 | 16.20 | 13.74 | 19.06 |
| Squid           | 0.25  | 0.30  | 0.32  | 0.32  | 0.30  | 0.48  | 0.50  | 0.49  | 0.50  | 0.58  |
| Swordfish       | 2.47  | 2.35  | 2.30  | 2.43  | 2.65  | 2.71  | 2.61  | 2.42  | 2.72  | 2.69  |

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

**2020 Economic Impacts of California Recreational Fishing (thousands of dollars; number of jobs) (Based on nine months of effort data; effort data unavailable for April, May and June 2020)<sup>1,2</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| Total State Economic Impacts | 5,083 | 718,123 | 176,349 | 301,622     |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| For-Hire                     | 3,666 | 497,882 | 101,048 | 161,654     |
| Private Boat                 | 755   | 126,301 | 41,707  | 79,277      |
| Shore                        | 662   | 93,939  | 33,595  | 60,690      |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 296,521    | 152,519  | 84,104       | 59,898 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|------|------|------|------|------|
| Total Anglers | 1,276 | 1,127 | 1,333 | 1,322 | 1,277 | 869  | 842  | 809  | NA   | NA   |
| Coastal       | 863   | 722   | 1,024 | 964   | 893   | 591  | 576  | 551  | NA   | NA   |
| Non-Coastal   | 230   | 190   | 222   | 264   | 263   | 182  | 189  | 174  | NA   | NA   |
| Out-of-State  | 183   | 215   | 87    | 94    | 121   | 96   | 77   | 84   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 4,282 | 5,585 | 5,512 | 5,320 | 3,787 | 3,531 | 3,542 | 3,405 | 3,367 | 1,611 |
| For-Hire     | 554   | 557   | 613   | 929   | 727   | 632   | 636   | 644   | 653   | 432   |
| Private Boat | 683   | 800   | 786   | 785   | 676   | 522   | 533   | 497   | 527   | 450   |
| Shore        | 3,045 | 4,227 | 4,113 | 3,606 | 2,385 | 2,377 | 2,373 | 2,264 | 2,187 | 730   |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>3,4,5,6,7</sup>**

| Species                                 | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|---|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Barracuda, bass and bonito              | H        | 423   | 353   | 143   | 138   | 182   | 172   | 154   | 164   | 125   | 154   |
|   | R        | 744   | 789   | 1,166 | 1,224 | 1,166 | 1,626 | 1,452 | 1,189 | 1,271 | 950   |
| Bluefin tuna                            | H        | < 1   | 4     | 3     | < 1   | < 1   | < 1   | 11    | 13    | 31    | 25    |
|   | R        | < 1   | < 1   | < 1   | 0     | < 1   | < 1   | < 1   | < 1   | < 1   | < 1   |
| California and other scorpionfish       | H        | 198   | 256   | 241   | 177   | 171   | 162   | 177   | 217   | 262   | 159   |
|   | R        | 166   | 217   | 260   | 163   | 192   | 209   | 272   | 340   | 300   | 193   |
| California halibut and other flatfishes | H        | 539   | 488   | 638   | 602   | 336   | 290   | 290   | 306   | 304   | 205   |
|   | R        | 175   | 248   | 404   | 240   | 196   | 152   | 292   | 209   | 272   | 103   |
| Lingcod                                 | H        | 85    | 108   | 153   | 174   | 253   | 238   | 181   | 136   | 104   | 78    |
|   | R        | 129   | 156   | 145   | 130   | 138   | 149   | 100   | 78    | 64    | 40    |
| Mackerels                               | H        | 1,111 | 835   | 582   | 927   | 1,684 | 1,011 | 1,419 | 1,187 | 830   | 344   |
|   | R        | 532   | 409   | 332   | 572   | 529   | 589   | 769   | 636   | 433   | 215   |
| Rockfishes                              | H        | 2,181 | 2,615 | 3,004 | 2,528 | 2,810 | 2,515 | 2,673 | 2,615 | 3,149 | 2,087 |
|   | R        | 340   | 366   | 547   | 408   | 481   | 437   | 480   | 445   | 446   | 467   |
| Salmon                                  | H        | 50    | 124   | 116   | 75    | 38    | 38    | 62    | 101   | 89    | 40    |
|   | R        | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Surfperches                             | H        | 823   | 1,027 | 809   | 982   | 1,226 | 819   | 870   | 89    | 73    | 79    |
|   | R        | 714   | 984   | 819   | 998   | 912   | 520   | 700   | 80    | 75    | 104   |
| Yellowfin tuna                          | H        | 1     | 6     | 4     | 108   | 156   | 28    | 15    | 20    | 24    | 9     |
|   | R        | < 1   | < 1   | < 1   | < 1   | 4     | < 1   | < 1   | < 1   | < 1   | < 1   |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> For relevant tables on this page, California estimates on catch and effort (for-hire, private boat, man-made shore) is not available for April through June 2020 due to COVID-19 impacts. Beach/bank effort (shore mode) is only available for November and December 2020. Expenditure, impact, effort, and catch estimates are based on 9 months of data for 2020.

<sup>3</sup> Pacific recreational catch and effort estimates are based on multiple data sources. See [Data Sources](#) section.

<sup>4</sup> 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.

<sup>5</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

<sup>6</sup> Rockfishes may not be equivalent to species with similar names listed in the commercial tables.

<sup>7</sup> Salmon harvest estimates exclude release mortality.

2019 California State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 966,224 (12.1%)                     | 15,516,824 (11.7%)             | 1,077 (14.5%)                        | 1,624 (14.2%)                               | 3,053                                     | 0.51                                 |

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

| Sector                                    | Statistic | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019 |
|---|-----------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Seafood product preparation and packaging | Firms     | 187    | 151    | 157    | 164    | 169    | 174    | 202    | 181    | NA   |
|   | Receipts  | 9,788  | 9,283  | 9,866  | 11,112 | 12,978 | 14,725 | 13,419 | 13,928 | NA   |
| Seafood sales, retail                     | Firms     | 209    | 236    | 218    | 227    | 221    | 228    | 230    | 233    | NA   |
|   | Receipts  | 18,006 | 18,238 | 18,581 | 17,055 | 17,896 | 19,375 | 18,015 | 19,892 | NA   |

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

| Sector                                    | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    |
|---|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Seafood product preparation and packaging | Establishments | 48      | 41      | 44      | 53      | 48      | 41      | 39      | 40      | 39      |
|   | Employees      | 1,842   | 1,668   | 1,871   | 1,799   | 1,661   | 1,549   | 1,596   | 1,729   | 1,691   |
|   | Payroll        | 60,411  | 52,977  | 57,603  | 60,762  | 59,829  | 64,374  | 61,611  | 71,039  | 63,041  |
| Seafood Sales, Wholesale                  | Establishments | 404     | 275     | 320     | 341     | 349     | 371     | 320     | 314     | 325     |
|   | Employees      | 3,505   | 3,441   | 3,671   | 3,912   | 4,170   | 4,250   | 4,573   | 4,575   | 4,978   |
|   | Payroll        | 149,302 | 173,959 | 181,698 | 175,927 | 201,903 | 212,079 | 224,800 | 226,906 | 242,973 |
| Seafood sales, retail                     | Establishments | 157     | 149     | 155     | 167     | 170     | 171     | 153     | 152     | 155     |
|   | Employees      | 1,088   | 1,043   | 1,119   | 1,124   | 1,208   | 1,272   | 998     | 941     | 1,003   |
|   | Payroll        | 25,168  | 24,221  | 26,702  | 28,044  | 28,437  | 31,722  | 24,860  | 25,657  | 27,976  |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011      | 2012      | 2013    | 2014    | 2015      | 2016      | 2017      | 2018      | 2019      |
|--|----------------|-----------|-----------|---------|---------|-----------|-----------|-----------|-----------|-----------|
| Ship and Boat Building                         | Establishments | 108       | 120       | 113     | 108     | 103       | 104       | 97        | 94        | 95        |
|  | Employees      | 9,165     | 12,681    | 12,651  | 9,814   | 11,379    | 11,236    | 10,806    | 8,254     | 8,911     |
|  | Payroll        | 434,449   | 544,819   | 537,438 | 534,787 | 583,717   | 548,198   | 551,754   | 564,180   | 617,194   |
| Deep Sea Freight Transportation                | Establishments | 51        | 45        | 34      | 43      | 56        | 45        | 38        | 40        | 42        |
|  | Employees      | 2,464     | 2,431     | 2,073   | 2,467   | 2,554     | 2,399     | 1,862     | 1,546     | 1,483     |
| Deep Sea Passenger Transportation              | Payroll        | 256,962   | 236,423   | 218,054 | 187,383 | 235,546   | 230,946   | 186,036   | 152,607   | 144,331   |
|  | Establishments | 2         | 2         | 4       | 5       | 6         | 7         | 8         | 7         | 5         |
| Coastal and Great Lakes Freight Transportation | Employees      | ds        | ds        | ds      | ds      | ds        | ds        | ds        | 2,997     | 2,228     |
|  | Payroll        | ds        | ds        | ds      | ds      | ds        | ds        | ds        | 181,389   | 171,856   |
| Port and Harbor Operations                     | Establishments | 21        | 22        | 24      | 30      | 34        | 32        | 35        | 27        | 24        |
|  | Employees      | 395       | ds        | ds      | ds      | 851       | 759       | 620       | 689       | 748       |
|  | Payroll        | 24,708    | ds        | ds      | ds      | 70,978    | 62,151    | 55,847    | 70,802    | 97,632    |
| Marine Cargo Handling                          | Establishments | 19        | 59        | 31      | 33      | 30        | 30        | 19        | 23        | 25        |
|  | Employees      | 508       | ds        | 651     | 535     | 570       | 742       | 574       | 682       | 687       |
|  | Payroll        | 41,688    | ds        | 52,401  | 33,599  | 40,887    | 46,859    | 37,533    | 46,548    | 48,497    |
| Navigational Services to Shipping              | Establishments | 71        | 38        | 64      | 64      | 67        | 70        | 61        | 59        | 57        |
|  | Employees      | 18,812    | 18,759    | ds      | ds      | 18,859    | 20,694    | 20,829    | 20,763    | 20,784    |
|  | Payroll        | 1,333,805 | 1,351,874 | ds      | ds      | 1,761,284 | 1,898,249 | 2,047,600 | 2,156,287 | 2,036,087 |
| Marinas  | Establishments | 45        | 35        | 36      | 37      | 38        | 37        | 43        | 43        | 44        |
|  | Employees      | 760       | 800       | 805     | 634     | 587       | 1,221     | 714       | 679       | 656       |
|  | Payroll        | 62,065    | 61,166    | 67,665  | 59,927  | 60,228    | 68,514    | 73,082    | 78,051    | 74,468    |
| Marinas  | Establishments | 269       | 251       | 250     | 249     | 258       | 243       | 227       | 221       | 225       |
|  | Employees      | 2,401     | 2,237     | 2,199   | 2,332   | 2,439     | 2,432     | 2,387     | 2,457     | 2,439     |
|  | Payroll        | 82,958    | 71,777    | 72,737  | 79,840  | 84,427    | 86,510    | 91,703    | 92,541    | 95,350    |

<sup>1</sup>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.

<sup>2</sup>NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>3</sup>ds = Data are suppressed.

# Tables | Oregon



2020 Economic Impacts of the Oregon Seafood Industry (thousands of dollars; number of jobs)<sup>1,2</sup>

| Sector                               | With Imports |           |         |             | Without Imports |         |         |             |
|--------------------------------------|--------------|-----------|---------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales     | Income  | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 13,508       | 1,139,196 | 386,127 | 546,785     | 11,651          | 730,262 | 302,460 | 405,997     |
| Commercial Harvesters                | 4,130        | 265,466   | 110,669 | 155,578     | 4,130           | 265,466 | 110,669 | 155,578     |
| Seafood Processors and Dealers       | 1,573        | 160,353   | 61,585  | 80,465      | 1,228           | 125,162 | 48,070  | 62,806      |
| Importers                            | 991          | 328,006   | 52,569  | 99,990      | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 536          | 76,960    | 26,107  | 35,017      | 343             | 49,274  | 16,715  | 22,420      |
| Retail                               | 6,278        | 308,411   | 135,196 | 175,735     | 5,950           | 290,359 | 127,006 | 165,194     |

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

| Category               | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total                  | 146,485 | 126,561 | 177,423 | 156,307 | 116,072 | 148,564 | 147,112 | 174,694 | 165,020 | 154,883 |
| Finfish                | 74,984  | 70,707  | 78,662  | 76,372  | 58,988  | 62,688  | 69,743  | 64,655  | 66,274  | 47,073  |
| Shellfish and Other    | 71,501  | 55,854  | 98,761  | 79,935  | 57,084  | 85,876  | 77,369  | 110,039 | 98,746  | 107,810 |
| Key Species            | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Albacore tuna          | 18,766  | 15,168  | 16,085  | 11,023  | 9,221   | 12,478  | 10,777  | 9,716   | 10,856  | 7,053   |
| Crab                   | 44,690  | 29,172  | 71,208  | 48,147  | 12,107  | 55,731  | 58,723  | 74,522  | 67,930  | 72,809  |
| Flatfish               | 7,920   | 8,276   | 10,837  | 9,788   | 11,039  | 12,209  | 11,702  | 10,475  | 9,721   | 7,720   |
| Pacific hake (whiting) | 16,518  | 14,611  | 20,405  | 18,274  | 7,146   | 8,694   | 16,385  | 16,435  | 21,719  | 15,218  |
| Pacific sardine        | 3,192   | 8,979   | 6,299   | 3,522   | 813     | 0       | 0       | 3       | 4       | 0       |
| Rockfish               | 1,694   | 1,819   | 2,052   | 2,518   | 3,035   | 2,679   | 6,338   | 7,757   | 7,814   | 5,492   |
| Sablefish              | 17,351  | 11,530  | 7,595   | 8,076   | 12,767  | 15,062  | 15,547  | 11,916  | 9,422   | 4,711   |
| Salmon                 | 6,726   | 6,943   | 12,417  | 20,075  | 11,842  | 8,265   | 5,531   | 5,675   | 4,153   | 5,020   |
| Shrimp                 | 24,607  | 24,749  | 24,153  | 29,367  | 40,413  | 25,093  | 12,745  | 26,909  | 19,940  | 22,685  |
| Sole                   | 6,314   | 6,808   | 9,329   | 8,252   | 9,396   | 10,539  | 10,192  | 9,236   | 8,382   | 6,477   |

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

| Category               | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total                  | 285,670 | 306,779 | 349,166 | 300,160 | 203,610 | 226,346 | 302,346 | 312,820 | 334,942 | 344,421 |
| Finfish                | 216,975 | 246,185 | 271,639 | 233,546 | 144,038 | 158,314 | 257,334 | 244,320 | 280,483 | 268,539 |
| Shellfish and Other    | 68,695  | 60,594  | 77,527  | 66,614  | 59,572  | 68,032  | 45,012  | 68,501  | 54,458  | 75,882  |
| Key Species            | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Albacore tuna          | 9,682   | 9,938   | 10,209  | 8,769   | 7,585   | 7,235   | 4,732   | 5,809   | 6,571   | 4,419   |
| Crab                   | 17,260  | 8,691   | 26,034  | 11,918  | 2,294   | 15,714  | 19,015  | 23,135  | 19,035  | 19,893  |
| Flatfish               | 16,691  | 16,029  | 19,708  | 16,731  | 17,622  | 19,851  | 19,319  | 16,238  | 14,594  | 11,479  |
| Pacific hake (whiting) | 151,464 | 107,652 | 167,499 | 168,226 | 94,907  | 113,035 | 201,499 | 185,554 | 222,201 | 219,617 |
| Pacific sardine        | 24,302  | 94,062  | 57,956  | 17,171  | 4,699   | 9       | 3       | 21      | 28      | 1       |
| Rockfish               | 2,395   | 2,531   | 3,096   | 4,199   | 5,643   | 4,969   | 18,596  | 25,550  | 24,412  | 23,283  |
| Sablefish              | 5,081   | 4,745   | 3,844   | 3,297   | 5,001   | 5,526   | 5,556   | 5,678   | 5,837   | 4,159   |
| Salmon                 | 2,410   | 1,922   | 3,503   | 6,379   | 3,142   | 1,821   | 1,185   | 957     | 995     | 1,508   |
| Shrimp                 | 48,314  | 49,150  | 47,629  | 52,010  | 53,516  | 35,528  | 23,061  | 35,872  | 26,852  | 43,142  |
| Sole                   | 12,548  | 12,290  | 15,641  | 13,752  | 14,578  | 17,272  | 16,869  | 14,731  | 13,459  | 10,647  |

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

| Species                | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| Albacore tuna          | 1.94 | 1.53 | 1.58 | 1.26 | 1.22 | 1.72 | 2.28 | 1.67 | 1.65 | 1.60 |
| Crab                   | 2.59 | 3.36 | 2.74 | 4.04 | 5.28 | 3.55 | 3.09 | 3.22 | 3.57 | 3.66 |
| Flatfish               | 0.47 | 0.52 | 0.55 | 0.59 | 0.63 | 0.62 | 0.61 | 0.65 | 0.67 | 0.67 |
| Pacific hake (whiting) | 0.11 | 0.14 | 0.12 | 0.11 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.07 |
| Pacific sardine        | 0.13 | 0.10 | 0.11 | 0.21 | 0.17 | 0.04 | 0.09 | 0.15 | 0.14 | 0.00 |
| Rockfish               | 0.71 | 0.72 | 0.66 | 0.60 | 0.54 | 0.54 | 0.34 | 0.30 | 0.32 | 0.24 |
| Sablefish              | 3.42 | 2.43 | 1.98 | 2.45 | 2.55 | 2.73 | 2.80 | 2.10 | 1.61 | 1.13 |
| Salmon                 | 2.79 | 3.61 | 3.54 | 3.15 | 3.77 | 4.54 | 4.67 | 5.93 | 4.18 | 3.33 |
| Shrimp                 | 0.51 | 0.50 | 0.51 | 0.56 | 0.76 | 0.71 | 0.55 | 0.75 | 0.74 | 0.53 |
| Sole                   | 0.50 | 0.55 | 0.60 | 0.60 | 0.64 | 0.61 | 0.60 | 0.63 | 0.62 | 0.61 |

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

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Oregon Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs | Sales  | Income | Value Added |
|------------------------------|------|--------|--------|-------------|
| Total State Economic Impacts | 569  | 59,049 | 22,525 | 36,242      |
| Total Durable Expenditures   | NA   | NA     | NA     | NA          |
| For-Hire                     | 300  | 29,810 | 10,481 | 17,656      |
| Private Boat                 | 269  | 29,240 | 12,044 | 18,586      |
| Shore                        | NA   | NA     | NA     | NA          |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore |
|------------|----------|--------------|-------|
| 45,148     | 19,362   | 25,787       | NA    |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 222  | 230  | 240  | 245  | 241  | 230  | 232  | 240  | NA   | NA   |
| Coastal       | 82   | 86   | 90   | 92   | 90   | 86   | 87   | 90   | NA   | NA   |
| Non-Coastal   | 125  | 129  | 134  | 137  | 135  | 129  | 130  | 134  | NA   | NA   |
| Out-of-State  | 15   | 15   | 16   | 16   | 16   | 15   | 15   | 16   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------|------|------|------|------|------|------|------|------|------|------|
| Total Trips  | 159  | 187  | 214  | 235  | 214  | 179  | 187  | 210  | 238  | 195  |
| For-Hire     | 45   | 51   | 58   | 61   | 65   | 57   | 59   | 64   | 62   | 47   |
| Private Boat | 113  | 135  | 157  | 173  | 150  | 122  | 127  | 146  | 176  | 147  |
| Shore        | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3,4</sup>**

| Species                        | Category | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------------------|----------|------|------|------|------|------|------|------|------|------|------|
| Albacore tuna                  | H        | 29   | 63   | 22   | 48   | 35   | 37   | 16   | 26   | 103  | 5    |
|                                | R        | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  | 0    |
| Black rockfish                 | H        | 179  | 192  | 281  | 314  | 414  | 382  | 383  | 254  | 287  | 303  |
|                                | R        | 18   | 16   | 23   | 24   | 43   | 33   | 63   | 39   | 41   | 53   |
| Cabezon                        | H        | 6    | 5    | 4    | 3    | 3    | 4    | 8    | 4    | 5    | 4    |
|                                | R        | 5    | 5    | 7    | 4    | 4    | 5    | 7    | 13   | 14   | 12   |
| Chinook salmon                 | H        | 10   | 38   | 60   | 37   | 19   | 8    | 9    | 5    | 7    | 7    |
|                                | R        | 9    | 8    | 9    | 5    | 2    | 1    | 2    | 6    | 5    | 2    |
| Coho salmon                    | H        | 19   | 16   | 15   | 100  | 28   | 8    | 21   | 26   | 66   | 21   |
|                                | R        | 22   | 17   | 23   | 69   | 27   | 6    | 20   | 42   | 79   | 27   |
| Greenlings (excluding lingcod) | H        | 11   | 10   | 12   | 5    | 5    | 4    | 4    | 4    | 3    | 4    |
|                                | R        | 4    | 4    | 5    | 2    | 3    | 1    | 1    | 2    | 2    | 2    |
| Lingcod                        | H        | 33   | 47   | 67   | 51   | 62   | 47   | 61   | 68   | 49   | 53   |
|                                | R        | 33   | 30   | 34   | 20   | 30   | 31   | 28   | 29   | 27   | 35   |
| Other flatfishes               | H        | < 1  | < 1  | 2    | 1    | 3    | 3    | 17   | 4    | 4    | 6    |
|                                | R        | < 1  | < 1  | 1    | < 1  | 2    | 2    | 2    | 1    | 1    | 2    |
| Other rockfish                 | H        | 59   | 74   | 65   | 49   | 78   | 47   | 96   | 118  | 112  | 123  |
|                                | R        | 28   | 30   | 35   | 31   | 56   | 38   | 50   | 39   | 46   | 63   |
| Pacific halibut                | H        | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 9    | 12   |
|                                | R        | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0    | 0    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> Pacific recreational catch and effort estimates are based on multiple data sources. See [Data Sources](#) section.<sup>3</sup> 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.<sup>4</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.



2019 Oregon State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 119,074 (1.5%)                      | 1,643,425 (1.2%)               | 87.5 (1.2%)                          | 140 (1.2%)                                  | 247                                       | ds                                   |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013 | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 16    | 14    | 11   | 11    | 12    | 14    | 12    | 14    | NA   |
|   | Receipts  | 467   | 346   | 319  | 484   | 1,088 | 1,776 | 699   | 1,583 | NA   |
| Seafood sales, retail                     | Firms     | 16    | 11    | ds   | 16    | 15    | 14    | 11    | 11    | NA   |
|   | Receipts  | 1,896 | 1,600 | ds   | 1,036 | 841   | 1,379 | 1,317 | 1,196 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 22     | 18     | 19     | 20     | 20     | 20     | 18     | 19     | 25     |
|   | Employees      | 805    | 934    | 907    | 980    | 916    | 989    | 1,149  | 1,216  | 1,110  |
|   | Payroll        | 32,438 | 31,970 | 37,265 | 39,290 | 41,181 | 42,832 | 45,695 | 50,114 | 48,817 |
| Seafood Sales, Wholesale                  | Establishments | 27     | 21     | 19     | 22     | 24     | 27     | 20     | 20     | 20     |
|   | Employees      | ds     | 180    | 189    | 192    | 196    | 187    | 194    | 191    | 160    |
|   | Payroll        | ds     | 7,602  | 8,065  | 8,601  | 9,121  | 9,892  | 10,118 | 9,884  | 8,855  |
| Seafood sales, retail                     | Establishments | 20     | 18     | 20     | 23     | 25     | 23     | 22     | 19     | 21     |
|   | Employees      | 163    | 126    | 147    | 170    | 181    | 174    | 147    | 157    | 181    |
|   | Payroll        | 3,613  | 2,851  | 4,238  | 4,440  | 4,951  | 5,239  | 4,420  | 4,961  | 5,622  |

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

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014  | 2015   | 2016   | 2017   | 2018   | 2019   |
|--|----------------|--------|--------|--------|-------|--------|--------|--------|--------|--------|
| Ship and Boat Building                         | Establishments | 34     | 33     | 32     | 30    | 29     | 26     | 27     | 28     | 26     |
|  | Employees      | 1,179  | 1,504  | 1,406  | ds    | 1,506  | 1,278  | 1,153  | 936    | 982    |
|  | Payroll        | 55,068 | 77,718 | 79,913 | ds    | 94,956 | 83,079 | 88,198 | 72,713 | 81,416 |
| Deep Sea Freight Transportation                | Establishments | 3      | 3      | 3      | 2     | 3      | 2      | NA     | NA     | NA     |
|  | Employees      | ds     | ds     | ds     | ds    | ds     | ds     | NA     | NA     | NA     |
|  | Payroll        | ds     | ds     | ds     | ds    | ds     | ds     | NA     | NA     | NA     |
| Coastal and Great Lakes Freight Transportation | Establishments | 8      | 8      | 7      | 8     | 8      | 12     | 11     | 10     | 10     |
|  | Employees      | ds     | ds     | ds     | ds    | 437    | 506    | 501    | 378    | 392    |
|  | Payroll        | ds     | ds     | ds     | ds    | 40,746 | 47,896 | 47,693 | 43,148 | 44,015 |
| Port and Harbor Operations                     | Establishments | 3      | 10     | 5      | 5     | 5      | 5      | 3      | 5      | 5      |
|  | Employees      | ds     | 90     | ds     | ds    | 49     | 45     | 29     | 31     | 32     |
|  | Payroll        | ds     | 6,512  | ds     | ds    | 3,437  | 2,686  | 2,061  | 2,963  | 3,016  |
| Marine Cargo Handling                          | Establishments | 13     | 5      | 8      | 7     | 7      | 6      | 10     | 10     | 9      |
|  | Employees      | ds     | ds     | ds     | ds    | ds     | ds     | ds     | 1,284  | 1,310  |
|  | Payroll        | ds     | ds     | ds     | ds    | ds     | ds     | ds     | 98,357 | 98,294 |
| Navigational Services to Shipping              | Establishments | 18     | 20     | 15     | 15    | 15     | 17     | 17     | 18     | 19     |
|  | Employees      | 152    | 176    | 81     | 67    | 74     | 69     | 109    | 206    | 131    |
|  | Payroll        | 9,592  | 12,219 | 6,534  | 3,958 | 3,998  | 4,789  | 5,566  | 17,660 | 17,875 |
| Marinas  | Establishments | 33     | 32     | 34     | 34    | 36     | 35     | 31     | 33     | 32     |
|  | Employees      | 102    | 119    | 104    | 113   | 119    | 137    | 137    | 134    | 137    |
|  | Payroll        | 2,382  | 3,034  | 3,148  | 3,584 | 3,643  | 3,550  | 4,235  | 4,281  | 4,491  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | Washington



2020 Economic Impacts of the Washington Seafood Industry (thousands of dollars; number of jobs)<sup>1,2</sup>

| Sector                               | With Imports |           |           |             | Without Imports |           |         |             |
|--------------------------------------|--------------|-----------|-----------|-------------|-----------------|-----------|---------|-------------|
|                                      | Jobs         | Sales     | Income    | Value Added | Jobs            | Sales     | Income  | Value Added |
| Total Impacts                        | 62,157       | 9,718,293 | 2,492,442 | 3,846,751   | 17,368          | 1,363,755 | 564,325 | 764,813     |
| Commercial Harvesters                | 5,332        | 522,741   | 224,381   | 315,684     | 5,332           | 522,741   | 224,381 | 315,684     |
| Seafood Processors and Dealers       | 17,837       | 2,034,740 | 764,218   | 1,011,326   | 1,999           | 228,036   | 85,647  | 113,341     |
| Importers                            | 17,210       | 5,698,103 | 913,230   | 1,737,031   | NA              | NA        | NA      | NA          |
| Seafood Wholesalers and Distributors | 2,697        | 415,884   | 139,338   | 190,103     | 651             | 100,430   | 33,648  | 45,907      |
| Retail                               | 19,081       | 1,046,825 | 451,274   | 592,607     | 9,386           | 512,548   | 220,649 | 289,881     |

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

| Category               | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total                  | 366,839 | 339,927 | 384,251 | 370,015 | 366,379 | 381,391 | 380,476 | 372,724 | 351,232 | 262,621 |
| Finfish                | 90,730  | 86,056  | 92,737  | 81,744  | 63,819  | 71,220  | 80,166  | 61,055  | 50,484  | 33,203  |
| Shellfish and Other    | 276,108 | 253,871 | 291,514 | 288,271 | 302,560 | 310,171 | 300,310 | 311,668 | 300,748 | 229,417 |
| Key Species            | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Albacore tuna          | 22,253  | 28,464  | 24,745  | 21,177  | 19,961  | 24,716  | 23,494  | 14,749  | 15,799  | 16,093  |
| Clams                  | 327     | 263     | 579     | 560     | 114     | NA      | NA      | 474     | 353     | 416     |
| Crab                   | 83,991  | 60,599  | 86,517  | 80,509  | 72,858  | 89,168  | 101,391 | 97,886  | 85,015  | 75,878  |
| Pacific hake (whiting) | 7,190   | 5,882   | 7,473   | 5,431   | 2,563   | 4,659   | 8,052   | NA      | 7,904   | NA      |
| Pacific halibut        | 2,333   | 2,665   | 2,295   | 2,531   | 2,624   | 3,210   | 3,303   | 3,095   | 3,696   | 2,022   |
| Rockfish               | 912     | 1,355   | 812     | 713     | 850     | 542     | 642     | 1,265   | 1,773   | 983     |
| Sablefish              | 12,378  | 7,813   | 4,764   | 6,988   | 7,003   | 7,779   | 9,161   | 6,533   | 4,922   | 2,304   |
| Salmon                 | 41,753  | 28,035  | 41,396  | 38,388  | 27,270  | 26,657  | 31,984  | 32,368  | 13,880  | 10,980  |
| Shrimp                 | 7,140   | 6,986   | 8,664   | 19,706  | 32,820  | 12,182  | 7,156   | 9,805   | 11,291  | 11,617  |
| Sole                   | 1,290   | 1,471   | 1,753   | 976     | 1,037   | 1,227   | 1,496   | 1,572   | 1,321   | 227     |

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

| Category               | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total                  | 225,322 | 229,679 | 276,443 | 202,559 | 168,706 | 188,307 | 234,958 | 213,309 | 193,322 | 164,433 |
| Finfish                | 140,985 | 170,468 | 204,246 | 123,223 | 82,064  | 124,752 | 174,833 | 42,559  | 136,680 | 28,162  |
| Shellfish and Other    | 84,337  | 59,210  | 72,198  | 79,336  | 86,641  | 63,555  | 60,126  | 170,750 | 56,642  | 136,272 |
| Key Species            | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Albacore tuna          | 13,259  | 19,353  | 17,588  | 18,088  | 17,196  | 15,515  | 11,453  | 9,176   | 9,453   | 10,817  |
| Clams                  | 82      | 59      | 109     | 124     | 30      | NA      | NA      | 84      | 61      | 81      |
| Crab                   | 27,264  | 17,041  | 28,120  | 19,423  | 15,140  | 22,841  | 27,527  | 24,495  | 21,191  | 18,353  |
| Pacific hake (whiting) | 76,017  | 38,656  | 59,918  | 49,655  | 32,977  | 82,078  | 131,038 | NA      | 104,541 | NA      |
| Pacific halibut        | 527     | 615     | 546     | 538     | 557     | 656     | 768     | 896     | 1,114   | 695     |
| Rockfish               | 1,806   | 2,584   | 1,633   | 1,455   | 1,810   | 1,327   | 2,638   | 6,777   | 7,261   | 7,023   |
| Sablefish              | 3,423   | 3,014   | 1,970   | 2,328   | 2,326   | 2,544   | 2,728   | 2,638   | 2,681   | 1,711   |
| Salmon                 | 38,673  | 19,895  | 49,352  | 28,078  | 21,479  | 16,374  | 20,841  | 17,847  | 7,705   | 6,433   |
| Shrimp                 | 10,202  | 10,048  | 14,295  | 31,450  | 42,048  | 14,911  | 7,505   | 9,314   | 10,303  | 15,018  |
| Sole                   | 2,164   | 2,384   | 2,643   | 1,399   | 1,458   | 1,863   | 2,295   | 2,066   | 1,633   | 284     |

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

| Species                | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| Albacore tuna          | 1.68 | 1.47 | 1.41 | 1.17 | 1.16 | 1.59 | 2.05 | 1.61 | 1.67 | 1.49 |
| Clams                  | 4.01 | 4.47 | 5.31 | 4.53 | 3.84 | NA   | NA   | 5.64 | 5.83 | 5.14 |
| Crab                   | 3.08 | 3.56 | 3.08 | 4.15 | 4.81 | 3.90 | 3.68 | 4.00 | 4.01 | 4.13 |
| Pacific hake (whiting) | 0.09 | 0.15 | 0.12 | 0.11 | 0.08 | 0.06 | 0.06 | NA   | 0.08 | NA   |
| Pacific halibut        | 4.43 | 4.34 | 4.20 | 4.70 | 4.71 | 4.90 | 4.30 | 3.46 | 3.32 | 2.91 |
| Rockfish               | 0.51 | 0.52 | 0.50 | 0.49 | 0.47 | 0.41 | 0.24 | 0.19 | 0.24 | 0.14 |
| Sablefish              | 3.62 | 2.59 | 2.42 | 3.00 | 3.01 | 3.06 | 3.36 | 2.48 | 1.84 | 1.35 |
| Salmon                 | 1.08 | 1.41 | 0.84 | 1.37 | 1.27 | 1.63 | 1.53 | 1.81 | 1.80 | 1.71 |
| Shrimp                 | 0.70 | 0.70 | 0.61 | 0.63 | 0.78 | 0.82 | 0.95 | 1.05 | 1.10 | 0.77 |
| Sole                   | 0.60 | 0.62 | 0.66 | 0.70 | 0.71 | 0.66 | 0.65 | 0.76 | 0.81 | 0.80 |

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

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

2020 Economic Impacts of Washington Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>

| Fishing Mode                 | Jobs  | Sales   | Income | Value Added |
|------------------------------|-------|---------|--------|-------------|
| Total State Economic Impacts | 1,255 | 180,873 | 59,645 | 108,144     |
| Total Durable Expenditures   | NA    | NA      | NA     | NA          |
| For-Hire                     | 294   | 32,445  | 11,186 | 19,319      |
| Private Boat                 | 961   | 148,429 | 48,459 | 88,825      |
| Shore                        | NA    | NA      | NA     | NA          |

2020 Angler Trip Expenditures (thousands of dollars)

| Total Trip | For-Hire | Private Boat | Shore |
|------------|----------|--------------|-------|
| 131,476    | 20,156   | 111,321      | NA    |

Recreational Anglers by Residential Area (thousands of anglers)

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 296  | 296  | 318  | 301  | 303  | 210  | 358  | 225  | NA   | NA   |
| Coastal       | 248  | 248  | 268  | 251  | 253  | 172  | 303  | 186  | NA   | NA   |
| Non-Coastal   | 27   | 27   | 28   | 28   | 28   | 21   | 31   | 22   | NA   | NA   |
| Out-of-State  | 21   | 21   | 22   | 22   | 22   | 17   | 24   | 17   | NA   | NA   |

Recreational Fishing Effort by Mode (thousands of angler trips)

| Category     | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017  | 2018 | 2019 | 2020 |
|--------------|------|------|------|------|------|------|-------|------|------|------|
| Total Trips  | 806  | 803  | 889  | 807  | 675  | 451  | 1,016 | 517  | 617  | 496  |
| For-Hire     | 74   | 73   | 75   | 86   | 56   | 62   | 81    | 62   | 70   | 40   |
| Private Boat | 732  | 730  | 814  | 722  | 619  | 389  | 935   | 455  | 547  | 456  |
| Shore        | NA   | NA   | NA   | NA   | NA   | NA   | NA    | NA   | NA   | NA   |

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3,4</sup>

| Species                        | Category | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------------------|----------|------|------|------|------|------|------|------|------|------|------|
| Albacore tuna                  | H        | 15   | 50   | 54   | 75   | 79   | 47   | 30   | 25   | 88   | 27   |
|                                | R        | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  | < 1  |
| Black rockfish                 | H        | 192  | 243  | 259  | 287  | 311  | 316  | 216  | 235  | 217  | 111  |
|                                | R        | 21   | 22   | 21   | 30   | 23   | 21   | 29   | 21   | 18   | 8    |
| Cabezon                        | H        | 5    | 3    | 3    | 3    | 2    | 2    | 3    | 3    | 6    | 3    |
|                                | R        | 3    | 2    | 2    | 3    | 2    | 2    | 2    | 2    | 3    | 2    |
| Chinook salmon                 | H        | 95   | 105  | 120  | 121  | 115  | 59   | 91   | 59   | 58   | 28   |
|                                | R        | 148  | 111  | 153  | 103  | 132  | 81   | 178  | 124  | 76   | 90   |
| Coho salmon                    | H        | 102  | 55   | 165  | 216  | 190  | 19   | 64   | 81   | 124  | 82   |
|                                | R        | 106  | 91   | 148  | 133  | 175  | 33   | 80   | 95   | 146  | 89   |
| Greenlings (excluding lingcod) | H        | 15   | 20   | 15   | 33   | 9    | 13   | 6    | 5    | 4    | 5    |
|                                | R        | 11   | 10   | 8    | 14   | 6    | 5    | 3    | 5    | 4    | 4    |
| Lingcod                        | H        | 41   | 45   | 45   | 48   | 43   | 55   | 54   | 48   | 54   | 38   |
|                                | R        | 68   | 44   | 35   | 37   | 32   | 26   | 15   | 18   | 29   | 24   |
| Other flatfishes               | H        | 96   | 73   | 94   | 54   | 138  | 105  | 44   | 59   | 77   | 94   |
|                                | R        | 66   | 55   | 62   | 51   | 31   | 45   | 25   | 34   | 30   | 44   |
| Other rockfish                 | H        | 51   | 26   | 29   | 37   | 31   | 42   | 49   | 38   | 61   | 57   |
|                                | R        | 34   | 36   | 39   | 42   | 35   | 36   | 30   | 39   | 42   | 37   |
| Pacific halibut                | H        | 10   | 14   | 15   | 16   | 14   | 15   | 12   | 12   | 14   | 11   |
|                                | R        | 3    | 3    | 3    | 4    | 4    | 4    | 2    | 3    | 3    | 2    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> Pacific recreational catch and effort estimates are based on multiple data sources. See [Data Sources](#) section.

<sup>3</sup> 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.

<sup>4</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Washington State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 195,105 (2.5%)                      | 2,898,378 (2.2%)               | 192 (2.6%)                           | 310 (2.7%)                                  | 598                                       | ds                                   |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 37    | 42    | 42    | 51    | 59    | 65    | 48    | 56    | NA   |
|   | Receipts  | 3,859 | 4,377 | 4,094 | 5,270 | 3,555 | 4,697 | 3,297 | 5,096 | NA   |
| Seafood sales, retail                     | Firms     | 34    | 42    | 41    | 36    | 35    | 33    | 36    | 29    | NA   |
|   | Receipts  | 2,370 | 1,871 | 3,017 | 2,559 | 2,071 | 1,991 | 2,213 | 2,049 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 22     | 18     | 19     | 20     | 20     | 20     | 18     | 19     | 25     |
|   | Employees      | 805    | 934    | 907    | 980    | 916    | 989    | 1,149  | 1,216  | 1,110  |
|   | Payroll        | 32,438 | 31,970 | 37,265 | 39,290 | 41,181 | 42,832 | 45,695 | 50,114 | 48,817 |
| Seafood Sales, Wholesale                  | Establishments | 27     | 21     | 19     | 22     | 24     | 27     | 20     | 20     | 20     |
|   | Employees      | ds     | 180    | 189    | 192    | 196    | 187    | 194    | 191    | 160    |
|   | Payroll        | ds     | 7,602  | 8,065  | 8,601  | 9,121  | 9,892  | 10,118 | 9,884  | 8,855  |
| Seafood sales, retail                     | Establishments | 20     | 18     | 20     | 23     | 25     | 23     | 22     | 19     | 21     |
|   | Employees      | 163    | 126    | 147    | 170    | 181    | 174    | 147    | 157    | 181    |
|   | Payroll        | 3,613  | 2,851  | 4,238  | 4,440  | 4,951  | 5,239  | 4,420  | 4,961  | 5,622  |

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

| Sector   | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 135     | 141     | 138     | 131     | 143     | 129     | 135     | 136     | 125     |
|  | Employees      | 5,232   | 5,294   | 5,387   | 5,060   | 4,653   | 4,930   | 5,213   | 4,987   | 4,879   |
|  | Payroll        | 276,402 | 290,400 | 273,825 | 262,730 | 265,732 | 269,879 | 296,499 | 283,128 | 281,168 |
| Deep Sea Freight Transportation                | Establishments | 14      | 12      | 8       | 8       | 8       | 5       | 6       | 9       | 7       |
|  | Employees      | ds      | ds      | 200     | 204     | 194     | 170     | ds      | 208     | 204     |
|  | Payroll        | ds      | 14,014  | 14,892  | 14,991  | 13,981  | 13,822  | ds      | 28,617  | 31,582  |
| Deep Sea Passenger Transportation              | Establishments | 2       | 2       | 5       | 4       | 6       | 4       | 4       | 4       | 5       |
|  | Employees      | ds      | ds      | ds      | 1,412   | 1,277   | 1,151   | 919     | 1,012   | 913     |
|  | Payroll        | ds      | ds      | ds      | 54,346  | 73,134  | 72,462  | 59,817  | 62,226  | 65,535  |
| Coastal and Great Lakes Freight Transportation | Establishments | 28      | 28      | 35      | 38      | 35      | 41      | 39      | 41      | 36      |
|  | Employees      | 1,684   | 1,557   | 2,186   | 2,020   | 1,879   | 1,956   | 1,533   | 1,734   | 1,636   |
|  | Payroll        | 132,068 | 126,401 | 170,003 | 163,075 | 162,635 | 163,240 | 148,497 | 167,788 | 155,982 |
| Port and Harbor Operations                     | Establishments | 9       | 48      | 28      | 27      | 23      | 23      | 13      | 12      | 12      |
|  | Employees      | 75      | 1,509   | 181     | 304     | 250     | 226     | 128     | 159     | 147     |
|  | Payroll        | 4,937   | 85,042  | 11,894  | 16,449  | 14,278  | 14,169  | 9,911   | 15,051  | 13,909  |
| Marine Cargo Handling                          | Establishments | 32      | 13      | 30      | 29      | 30      | 30      | 35      | 36      | 36      |
|  | Employees      | 3,910   | ds      | ds      | ds      | 3,966   | 4,143   | 4,241   | 4,128   | 4,355   |
|  | Payroll        | 323,286 | ds      | ds      | ds      | 424,469 | 436,086 | 469,911 | 481,422 | 488,241 |
| Navigational Services to Shipping              | Establishments | 78      | 72      | 73      | 71      | 68      | 76      | 81      | 77      | 76      |
|  | Employees      | 1,207   | ds      | ds      | 1,297   | 1,176   | 1,175   | 1,292   | 1,293   | 1,182   |
|  | Payroll        | 94,781  | ds      | ds      | 101,251 | 88,363  | 88,045  | 116,801 | 127,389 | 116,546 |
| Marinas  | Establishments | 114     | 100     | 110     | 106     | 102     | 97      | 101     | 103     | 99      |
|  | Employees      | 517     | 479     | 529     | 530     | 588     | 525     | 559     | 601     | 584     |
|  | Payroll        | 18,364  | 18,038  | 18,914  | 20,348  | 21,944  | 21,809  | 22,021  | 23,655  | 24,600  |

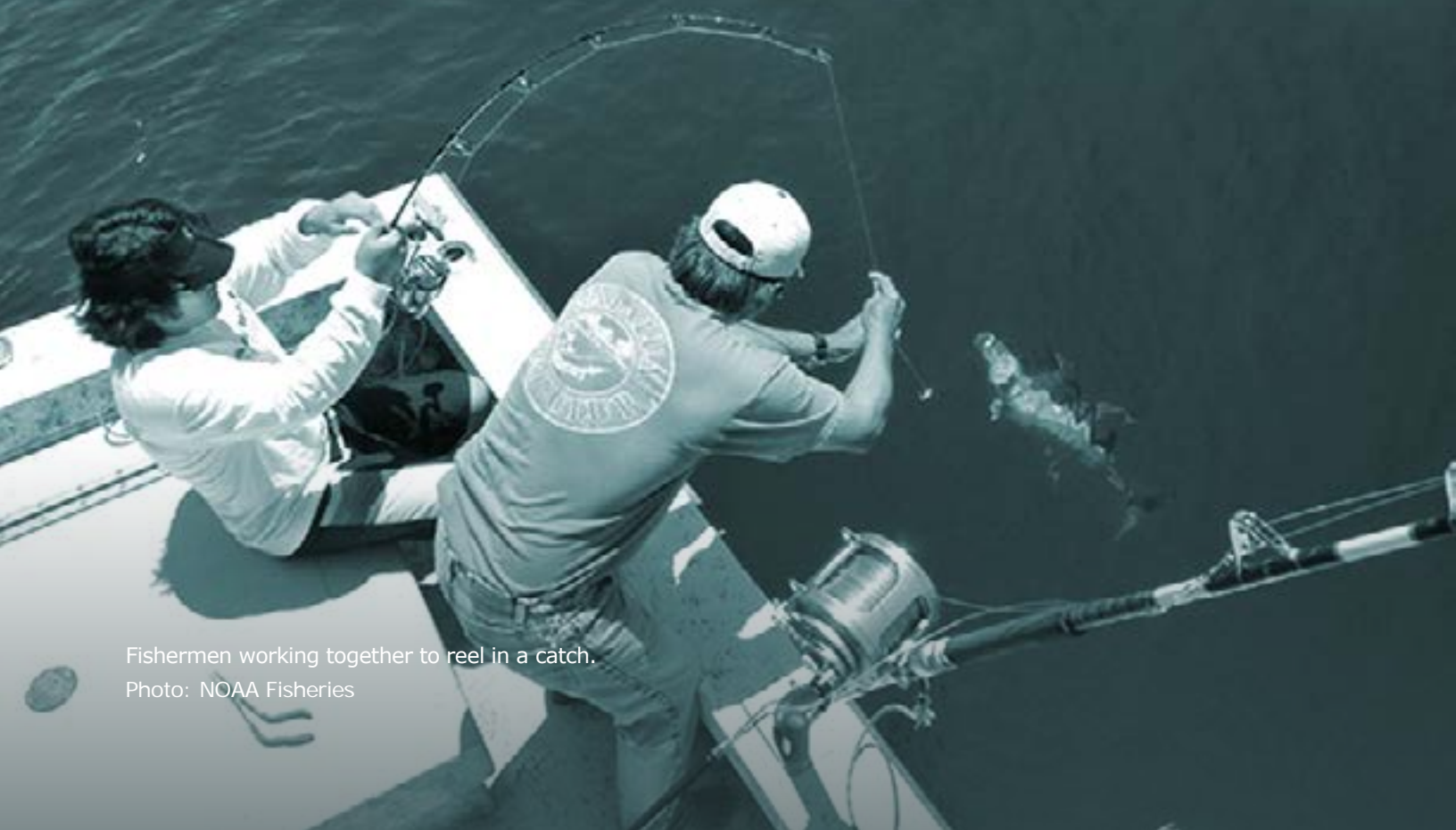
<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Western Pacific Region

- Hawai`i



Fishermen working together to reel in a catch.  
Photo: NOAA Fisheries

## 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

Six of the stocks or stock complexes covered in these FEPs were listed as overfished in 2020: Pacific bluefin tuna (Pacific stock); striped marlin (Western/Central Pacific stock); seamount groundfish complex (Hancock seamount stock); American Samoa Bottomfish Multi-species Complex (added in 2020); Guam Bottomfish Multi-species Complex (added in 2020); and the oceanic whitetip shark – Central and Western Pacific (status previously unknown).

Seven stocks or stock complexes were subject to overfishing in 2020: Pacific bluefin tuna (Pacific stock); swordfish (Eastern Pacific stock); yellowfin tuna (Eastern Pacific stock); striped marlin (Western/Central Pacific stock); American Samoa Bottomfish Multi-species Complex (added in 2020); oceanic whitetip shark – Central and Western Pacific (status previously unknown); and the silky shark – Central and Western Pacific (status previously unknown).<sup>1</sup>

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

<sup>1</sup> 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.

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 Western Pacific (Hawai'i) 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.

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.<sup>2</sup>

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 2020, the commercial fishing and seafood industry in Hawai'i supported 5,611 full- and part-time jobs and generated \$557 million in sales, \$166.4 million in income, and \$245.5 million in value-added impacts. Importers generated the largest sales impacts (\$224.3 million) while commercial harvesters generated the largest value-added impacts (\$76.7 million), income impacts (\$53.4 million), and employment impacts (2,448 jobs).

## Landings Revenue

In 2020, landings revenue in Hawai'i totaled \$83.9 million, an 8% decrease from 2011 (a 21% decrease in real terms after adjusting for inflation) and a 24% decrease from 2019.

Finfish landings revenue accounted for 98% of all landings revenue. In 2020, tunas (*aku*) (\$67.9 million), swordfish (*mekajiki*) (\$3 million), and dolphinfish (*mahimahi*) (\$1.9 million) had the highest landings revenue in this region. Together, these top three species accounted for 87% of total landings revenue.

From 2011 to 2020, scad (*opelu*) (7%, -8% in real terms), tunas (*aku*) (2%, -12% in real terms), and wahoo (*ono*) (1%, -13% in real terms) had the largest increases, while lobsters (*ula*) (-86%, -87% in real terms), dolphinfish (*mahimahi*) (-55%, -61% in real terms), and swordfish (*mekajiki*) (-55%, -61% in real terms) had the largest decreases. From 2019 to 2020, scad (*opelu*) (2%) had the largest increases, while lobsters (*ula*) (-53%), pomfrets (*monchong*) (-50%), and wahoo (*ono*) (-50%) had the largest decreases.

<sup>2</sup> 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](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).]



**Commercial Revenue: Largest Increases**

From 2011:

- Scad (*opelu*) (7%, -8% in real terms)
- Tunas (*aku*) (2%, -12% in real terms)
- Wahoo (*ono*) (1%, -13% in real terms)

From 2019:

- Scad (*opelu*) (2%)

**Commercial Revenue: Largest Decreases**

From 2011:

- Lobsters (*ula*) (-86%, -87% in real terms)
- Dolphinfinh (*mahimahi*) (-55%, -61% in real terms)
- Swordfish (*mekajiki*) (-55%, -61% in real terms)

From 2019:

- Lobsters (*ula*) (-53%)
- Pomfrets (*monchong*) (-50%)
- Wahoo (*ono*) (-50%)

**Commercial Landings: Largest Increases**

From 2011:

- Wahoo (*ono*) (45%)
- Pomfrets (*monchong*) (23%)
- Tunas (*aku*) (11%)

From 2019:

- Scad (*opelu*) (2%)

**Commercial Landings: Largest Decreases**

From 2011:

- Lobsters (*ula*) (-84%)
- Swordfish (*mekajiki*) (-69%)
- Dolphinfinh (*mahimahi*) (-62%)

From 2019:

- Lobsters (*ula*) (-54%)
- Marlin (*a'u*) (-48%)
- Wahoo (*ono*) (-46%)

**Landings**

In 2020, commercial fishermen in Hawai'i landed over 27.3 million pounds of finfish and shellfish. This represents a 7% decrease from 2011 and a 21% decrease from 2019. Tunas (*aku*) contributed the highest landings volume in the region, accounting for 76% of total landing weight.

From 2011 to 2020, wahoo (*ono*) (45%), pomfrets (*monchong*) (23%), and tunas (*aku*) (11%) had the largest increases, while lobsters (*ula*) (-84%), swordfish (*mekajiki*) (-69%), and dolphinfinh (*mahimahi*) (-62%) had the largest decreases. From 2019 to 2020, scad (*opelu*) (2%) had the largest increases, while lobsters (*ula*) (-54%), marlin (*a'u*) (-48%), and wahoo (*ono*) (-46%) had the largest decreases.

**Prices**

In 2020, lobsters (*ula*) (\$9.48 per pound) received the highest ex-vessel price in the region. Landings of marlin (*a'u*) (\$1.14 per pound) had the lowest ex-vessel price. From 2011 to 2020, swordfish (*mekajiki*) (43%, 23% in real terms), dolphinfinh (*mahimahi*) (19%, 2% in real terms), and snappers (11%, -5% in real terms) had the largest increases, while wahoo (*ono*) (-30%, -40% in real terms), pomfrets (*monchong*) (-23%, -34% in real terms), and marlin (*a'u*) (-16%, -27% in real terms) had the largest decreases. From 2019 to 2020, marlin (*a'u*) (61%), swordfish (*mekajiki*) (44%), and lobsters (*ula*) (3%) had the largest increases, while pomfrets (*monchong*) (-26%), tunas (*aku*) (-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.<sup>3</sup> This recreational fisheries section

<sup>3</sup> For a definition of non-commercial fishing see the Electronic Code of Federal Regulations. [Available at: <https://www.ecfr.gov/current/title-50/chapter-VI/part-665/subpart-A/section-665.12>.]

reports on economic impacts and expenditures, angler participation, fishing trips, and catch of key species/species groups.<sup>4</sup>

### Key Western Pacific (Hawai'i) Region Recreational Species<sup>5</sup>

- Bigeye (*akule*) and mackerel (*opelu*)
- Blue marlin (*a'u*)
- Deep 7 bottomfish<sup>6</sup>
- Dolphinfish (*mahimahi*)
- Goatfishes
- Jacks (trevallys and other jacks)<sup>7</sup>
- Other snappers<sup>8</sup>
- 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.<sup>9</sup> 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 2020 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 2020 trips).

In 2020, economic impacts from recreational fishing activities in Hawai'i generated 3,292 jobs, \$464.9 million in sales, \$143.5 million in income, and \$257.8 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 67% of employment impacts. Trip expenditures for shore and private boat modes totaled \$383.7 million, with a large portion of these trip expenditures coming from trips in the shore (62%) mode. Data for durable expenditures is not available due to unavailable participation estimates.

## Participation

Angler participation data is not available for Hawai'i.

## Fishing Trips

In 2020, recreational fishermen took 3.9 million saltwater fishing trips in the state of Hawai'i. This number represented a 182% increase from 2011 and a 12% increase from 2019. Of all fishing trips, 81% were taken from the shore sector.

## Harvest and Release Trends

Of the Western Pacific (Hawai'i) Region's key species and species groups, bigeye (*akule*) and mackerel (*opelu*) scad (3.7 million fish), jacks (trevallys and other jacks) (639,598 fish), and goatfishes (530,290 fish) were most frequently caught by recreational fishermen. The following text box shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

<sup>4</sup> Data for this state is from MRIP estimates produced using pre-calibration methods.

<sup>5</sup> 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.

<sup>6</sup> Bingham's snapper, Hawaiian grouper, longtail snapper, pink snapper, squirrelfish snapper, and von siebold's snapper.

<sup>7</sup> African pompano, bigeye trevally, black jack, black trevally, bluefin trevally, giant trevally, greater amberjack, island jack, jack family, and jack genus.

<sup>8</sup> Blacktail snapper, bluestripe snapper, green jobfish, ironjaw snapper, smalltooth jobfish, snapper family, and snapper genus.

<sup>9</sup> 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.]

From 2011 to 2020, blue marlin (*a'u*) (579%), wahoo (*ono*) (443%), and deep 7 bottomfish (345%) had the largest increases. There were no percent decreases. From 2019 to 2020, other snappers (28%) and blue marlin (*a'u*) (14%) had the largest increases, while deep 7 bottomfish (-55%), yellowfin tuna (*'ahi*) (-25%), and skipjack tuna (*aku*) (-11%) had the largest decreases.

**Harvest and Release: Largest Increases**

From 2011:

- Blue marlin (*a'u*) (579%)
- Wahoo (*ono*) (443%)
- Deep 7 bottomfish (345%)

From 2019:

- Other snappers (28%)
- Blue marlin (*a'u*) (14%)

**Harvest and Release: Largest Decreases**

From 2011:

- There were no percent decreases.

From 2019:

- Deep 7 bottomfish (-55%)
- Yellowfin tuna (*'ahi*) (-25%)
- Skipjack tuna (*aku*) (-11%)

**MARINE ECONOMY — WESTERN PACIFIC (HAWAII) 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.<sup>10</sup>

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.<sup>11</sup> 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 3.81.

In 2019, 32,889 employer establishments operated throughout Hawai'i (including marine and non-marine related establishments). These establishments employed 553,206 workers and had a total annual payroll of \$25.8 billion. The gross state product of Hawai'i was approximately \$91.8 billion in 2019.

**Seafood Sales and Processing<sup>12</sup>**

**Seafood Product Preparation and Packaging:** In 2019, Hawai'i had 3 employer firms in the seafood product preparation and packaging sector (a 200% increase from 2011).

**Retail Seafood Sales:** In 2019, Hawai'i had 22 employer firms in the seafood retail sector (a 12% decrease from 2011).

**Wholesale Seafood Sales:** There were 30 employer firms in the seafood wholesale sector in Hawai'i in 2019 (a 25% decrease from 2011).

**Transportation Support and Marine Operations**

Data for the transportation support and marine operations sectors in Hawai'i economy were largely suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the state's economy. For example, in 2019, the marine cargo handling sector in Hawai'i accounted for \$100.8 million in payroll.

<sup>10</sup> 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/USAGDPDEFSAISMEI>).

<sup>11</sup> U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

<sup>12</sup> This report has provided economic statistics (number of firms and annual receipts) for non-employer firms in the seafood sales and processing sectors in previous volumes. Currently, this information is not available from the Census Bureau for 2019.

# Tables | Hawai'i



2020 Economic Impacts of the Hawai'i Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |         |         |             | Without Imports |         |         |             |
|--------------------------------------|--------------|---------|---------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales   | Income  | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 5,611        | 557,016 | 166,427 | 245,482     | 4,389           | 282,549 | 110,693 | 151,349     |
| Commercial Harvesters                | 2,448        | 145,929 | 53,402  | 76,677      | 2,448           | 145,929 | 53,402  | 76,677      |
| Seafood Processors and Dealers       | 484          | 50,658  | 20,053  | 25,862      | 283             | 29,626  | 11,727  | 15,125      |
| Importers                            | 678          | 224,334 | 35,954  | 68,387      | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 288          | 32,669  | 11,458  | 15,242      | 137             | 15,482  | 5,430   | 7,223       |
| Retail                               | 1,712        | 103,426 | 45,561  | 59,314      | 1,521           | 91,512  | 40,134  | 52,324      |

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)<sup>1</sup>

| Category                        | 2011   | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020   |
|---------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| Total                           | 91,611 | 112,343 | 108,031 | 101,313 | 103,424 | 118,182 | 116,423 | 119,158 | 109,751 | 83,855 |
| Finfish                         | 90,074 | 110,326 | 105,775 | 98,975  | 101,933 | 115,814 | 114,354 | 116,988 | 108,145 | 82,393 |
| Shellfish and Other             | 1,537  | 2,018   | 2,256   | 2,338   | 1,491   | 2,368   | 2,069   | 2,171   | 1,606   | 1,461  |
| Key Species                     | -      | -       | -       | -       | -       | -       | -       | -       | -       | -      |
| Dolphinfish ( <i>mahimahi</i> ) | 4,314  | 5,309   | 4,130   | 4,412   | 3,427   | 4,512   | 3,451   | 3,493   | 3,454   | 1,926  |
| Lobsters ( <i>ula</i> )         | 104    | 98      | 95      | 105     | NA      | 28      | 21      | 14      | 32      | 15     |
| Marlin ( <i>a'u</i> )           | 1,238  | 1,455   | 1,467   | 1,607   | 1,639   | 2,097   | 2,120   | 1,617   | 1,333   | 1,109  |
| Moonfish ( <i>opah</i> )        | 2,853  | 3,163   | 3,203   | 2,910   | 3,151   | NA      | 3,203   | 3,301   | 3,121   | NA     |
| Pomfrets ( <i>monchong</i> )    | 1,449  | 2,097   | 2,576   | 2,466   | 2,874   | 3,502   | 3,287   | 2,855   | 2,734   | 1,367  |
| Scad ( <i>opelu</i> )           | 964    | 1,181   | 1,147   | 1,128   | 108     | 1,173   | 996     | 998     | 1,009   | 1,029  |
| Snappers                        | 1,425  | 1,750   | 2,024   | 2,250   | 1,136   | 2,302   | 2,645   | 1,824   | 1,762   | 1,193  |
| Swordfish ( <i>mekajiki</i> )   | 6,669  | 6,693   | 4,493   | 5,405   | 4,629   | 4,813   | 5,823   | 3,699   | 3,805   | 2,977  |
| Tunas ( <i>aku</i> )            | 66,628 | 83,298  | 81,819  | 73,657  | 81,576  | 88,467  | 87,285  | 94,223  | 85,537  | 67,932 |
| Wahoo ( <i>ono</i> )            | 1,806  | 2,330   | 2,375   | 2,800   | 2,328   | 3,279   | 3,066   | 3,040   | 3,638   | 1,829  |

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

| Category                        | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total                           | 29,295 | 31,053 | 32,453 | 33,480 | 34,625 | 35,055 | 37,166 | 35,497 | 34,684 | 27,264 |
| Finfish                         | 28,278 | 30,271 | 31,338 | 32,269 | 33,425 | 33,966 | 36,076 | 34,169 | 33,214 | 26,301 |
| Shellfish and Other             | 1,017  | 783    | 1,116  | 1,211  | 1,200  | 1,090  | 1,090  | 1,328  | 1,471  | 963    |
| Key Species                     | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Dolphinfish ( <i>mahimahi</i> ) | 1,423  | 1,746  | 1,515  | 1,689  | 1,132  | 1,193  | 954    | 1,008  | 943    | 535    |
| Lobsters ( <i>ula</i> )         | 10     | 8      | 9      | 10     | NA     | 3      | 3      | 2      | 3      | 2      |
| Marlin ( <i>a'u</i> )           | 916    | 800    | 948    | 1,220  | 1,440  | 1,302  | 1,544  | 1,329  | 1,888  | 975    |
| Moonfish ( <i>opah</i> )        | 1,564  | 1,549  | 2,072  | 2,004  | 2,067  | NA     | 1,812  | 2,327  | 1,614  | NA     |
| Pomfrets ( <i>monchong</i> )    | 427    | 731    | 1,142  | 1,243  | 1,339  | 1,166  | 980    | 930    | 781    | 525    |
| Scad ( <i>opelu</i> )           | 323    | 383    | 361    | 356    | 36     | 368    | 306    | 299    | 313    | 320    |
| Snappers                        | 272    | 311    | 363    | 376    | 181    | 387    | 427    | 271    | 283    | 206    |
| Swordfish ( <i>mekajiki</i> )   | 2,592  | 2,381  | 1,674  | 2,480  | 2,044  | 1,640  | 2,561  | 1,744  | 1,491  | 810    |
| Tunas ( <i>aku</i> )            | 18,519 | 20,147 | 20,900 | 20,296 | 22,932 | 23,507 | 25,028 | 23,913 | 23,271 | 20,609 |
| Wahoo ( <i>ono</i> )            | 564    | 652    | 744    | 1,056  | 993    | 1,144  | 973    | 1,148  | 1,523  | 817    |

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

| Species                         | 2011  | 2012  | 2013  | 2014  | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------------|-------|-------|-------|-------|------|------|------|------|------|------|
| Dolphinfish ( <i>mahimahi</i> ) | 3.03  | 3.04  | 2.73  | 2.61  | 3.03 | 3.78 | 3.62 | 3.46 | 3.66 | 3.60 |
| Lobsters ( <i>ula</i> )         | 10.39 | 11.84 | 10.71 | 10.21 | NA   | 8.56 | 6.48 | 8.97 | 9.22 | 9.48 |
| Marlin ( <i>a'u</i> )           | 1.35  | 1.82  | 1.55  | 1.32  | 1.14 | 1.61 | 1.37 | 1.22 | 0.71 | 1.14 |
| Moonfish ( <i>opah</i> )        | 1.82  | 2.04  | 1.55  | 1.45  | 1.52 | NA   | 1.77 | 1.42 | 1.93 | NA   |
| Pomfrets ( <i>monchong</i> )    | 3.39  | 2.87  | 2.25  | 1.98  | 2.15 | 3.00 | 3.35 | 3.07 | 3.50 | 2.61 |
| Scad ( <i>opelu</i> )           | 2.98  | 3.08  | 3.18  | 3.17  | 2.99 | 3.19 | 3.25 | 3.34 | 3.23 | 3.21 |
| Snappers                        | 5.24  | 5.63  | 5.57  | 5.99  | 6.27 | 5.95 | 6.20 | 6.73 | 6.24 | 5.79 |
| Swordfish ( <i>mekajiki</i> )   | 2.57  | 2.81  | 2.68  | 2.18  | 2.26 | 2.93 | 2.27 | 2.12 | 2.55 | 3.68 |
| Tunas ( <i>aku</i> )            | 3.60  | 4.13  | 3.91  | 3.63  | 3.56 | 3.76 | 3.49 | 3.94 | 3.68 | 3.30 |
| Wahoo ( <i>ono</i> )            | 3.20  | 3.57  | 3.19  | 2.65  | 2.34 | 2.87 | 3.15 | 2.65 | 2.39 | 2.24 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Hawai'i Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | NA    | NA      | NA      | NA          |
| Private Boat                 | 1,098 | 178,013 | 49,963  | 92,098      |
| Shore                        | 2,194 | 286,907 | 93,574  | 165,743     |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 3,292 | 464,921 | 143,536 | 257,841     |

**2020 Angler Trip Expenditures by Fishing Mode (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 383,724    | NA       | 147,689      | 236,035 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 1,382 | 1,519 | 1,513 | 1,374 | 1,431 | 1,024 | 1,280 | 3,421 | 3,479 | 3,902 |
| For-Hire     | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    |
| Private Boat | 224   | 325   | 297   | 324   | 273   | 235   | 261   | 670   | 632   | 744   |
| Shore        | 1,158 | 1,195 | 1,216 | 1,051 | 1,158 | 790   | 1,019 | 2,750 | 2,847 | 3,158 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3</sup>**

| Species  | Category | 2011 | 2012 | 2013 | 2014 | 2015  | 2016 | 2017  | 2018  | 2019  | 2020  |
|--|----------|------|------|------|------|-------|------|-------|-------|-------|-------|
| Bigeye ( <i>akule</i> ) and mackerel ( <i>opelu</i> ) scad | H        | 662  | 608  | 889  | 899  | 1,245 | 690  | 1,172 | 4,043 | 5,232 | 3,719 |
|  | R        | 0    | 0    | 2    | 0    | < 1   | 4    | 7     | 2     | 8     | 6     |
| Blue marlin ( <i>a'u</i> )                                 | H        | 2    | 3    | 4    | 3    | 5     | 2    | 4     | 13    | 10    | 10    |
|  | R        | 0    | 0    | 0    | < 1  | 0     | 0    | < 1   | 5     | < 1   | 1     |
| Deep 7 bottomfish  | H        | < 1  | 1    | 2    | 2    | < 1   | < 1  |       | 2     | 3     | 1     |
|  | R        | 0    | 0    | 0    | 0    | 0     | 0    |       | 0     | 0     | 0     |
| Dolphinfish ( <i>mahimahi</i> )                            | H        | 63   | 163  | 94   | 92   | 78    | 44   | 47    | 216   | 125   | 117   |
|  | R        | 0    | 0    | 0    | < 1  | 0     | < 1  | < 1   | 2     | 2     | < 1   |
| Goatfishes   | H        | 173  | 158  | 873  | 537  | 1,052 | 246  | 420   | 2,037 | 1,167 | 491   |
|  | R        | 13   | 13   | 3    | 22   | 15    | 16   | 18    | 69    | 34    | 39    |
| Jacks (trevallys and other jacks)                          | H        | 99   | 110  | 144  | 156  | 170   | 112  | 115   | 202   | 310   | 257   |
|  | R        | 59   | 129  | 126  | 263  | 319   | 122  | 154   | 413   | 395   | 383   |
| Other snappers   | H        | 113  | 195  | 152  | 220  | 119   | 119  | 126   | 336   | 252   | 322   |
|  | R        | 14   | 15   | 10   | 3    | 9     | 14   | 10    | 19    | 29    | 38    |
| Skipjack tuna ( <i>aku</i> )                               | H        | 125  | 197  | 380  | 199  | 268   | 88   | 113   | 213   | 270   | 240   |
|  | R        | < 1  | 0    | 0    | 0    | < 1   | 2    | 2     | 6     | 3     | 4     |
| Wahoo ( <i>ono</i> )                                       | H        | 15   | 32   | 37   | 43   | 55    | 45   | 32    | 127   | 88    | 83    |
|  | R        | 0    | 0    | 0    | < 1  | < 1   | < 1  | 0     | 0     | 0     | 0     |
| Yellowfin tuna ( <i>'ahi</i> )                             | H        | 141  | 182  | 150  | 220  | 292   | 85   | 82    | 215   | 287   | 216   |
|  | R        | 0    | 0    | 0    | < 1  | 1     | < 1  | 0     | 6     | 5     | 2     |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Hawai'i State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 32,889 (0.4%)                       | 553,206 (0.4%)                 | 25.8 (0.3%)                          | 50.8 (0.4%)                                 | 91.8                                      | 3.81                                 |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 14    | 14    | 16    | 14    | 12    | 12    | 10    | 18    | NA   |
|   | Receipts  | 866   | 965   | 821   | 1,048 | 1,271 | 1,071 | 717   | 1,529 | NA   |
| Seafood sales, retail                     | Firms     | 39    | 42    | 40    | 38    | 39    | 31    | 27    | 21    | NA   |
|   | Receipts  | 3,558 | 4,086 | 3,764 | 3,727 | 4,053 | 4,025 | 2,106 | 2,364 | NA   |

Seafood Sales and Processing — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 1      | 2      | 2      | 2      | 2      | 2      | 3      | 3      | 3      |
|   | Employees      | ds     | ds     | ds     | ds     | ds     | ds     | ds     | 30     | 34     |
|   | Payroll        | ds     | ds     | ds     | ds     | ds     | ds     | ds     | 922    | 1,049  |
| Seafood Sales, Wholesale                  | Establishments | 40     | 33     | 32     | 30     | 30     | 30     | 32     | 31     | 30     |
|   | Employees      | 538    | 483    | 542    | 567    | 639    | 697    | 621    | 688    | 688    |
|   | Payroll        | 19,416 | 19,413 | 20,039 | 21,369 | 24,477 | 26,323 | 22,856 | 25,515 | 25,419 |
| Seafood sales, retail                     | Establishments | 25     | 24     | 25     | 26     | 25     | 22     | 21     | 21     | 22     |
|   | Employees      | 187    | 303    | 318    | 305    | 293    | 313    | 308    | 534    | 287    |
|   | Payroll        | 3,521  | 6,493  | 7,366  | 7,142  | 7,410  | 7,849  | 8,500  | 12,273 | 7,883  |

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

| Sector   | Statistic      | 2011    | 2012   | 2013   | 2014   | 2015   | 2016    | 2017   | 2018   | 2019    |
|--|----------------|---------|--------|--------|--------|--------|---------|--------|--------|---------|
| Ship and Boat Building                         | Establishments | 15      | 18     | 18     | 14     | 14     | 15      | 15     | 15     | 16      |
|  | Employees      | ds      | ds     | ds     | ds     | 660    | 727     | 927    | 646    | 722     |
|  | Payroll        | ds      | ds     | ds     | ds     | 46,560 | 45,051  | 66,270 | 45,133 | 50,196  |
| Deep Sea Freight Transportation                | Establishments | 1       | 2      | 1      | 1      | 1      | 1       | 3      | 4      | 3       |
|  | Employees      | ds      | ds     | ds     | ds     | ds     | ds      | ds     | 55     | 97      |
|  | Payroll        | ds      | ds     | ds     | ds     | ds     | ds      | ds     | 6,491  | 6,570   |
| Deep Sea Passenger Transportation              | Establishments | 1       | 1      | 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      |
| Coastal and Great Lakes Freight Transportation | Establishments | 2       | 5      | 5      | 6      | 7      | 7       | 6      | 6      | 7       |
|  | Employees      | ds      | 431    | ds     | ds     | 452    | 425     | 275    | 270    | 392     |
|  | Payroll        | ds      | 34,538 | ds     | ds     | 36,675 | 50,267  | 42,282 | 44,039 | 50,528  |
| Port and Harbor Operations                     | Establishments | 2       | 2      | 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      |
| Marine Cargo Handling                          | Establishments | 14      | 11     | 10     | 10     | 11     | 12      | 11     | 12     | 11      |
|  | Employees      | 1,278   | 664    | 709    | 700    | 782    | 846     | 869    | 857    | 877     |
|  | Payroll        | 109,134 | 54,309 | 61,651 | 66,034 | 83,408 | 115,582 | 86,285 | 92,308 | 100,754 |
| Navigational Services to Shipping              | Establishments | 8       | 8      | 9      | 9      | 11     | 11      | 8      | 9      | 9       |
|  | Employees      | 105     | 97     | 100    | 80     | 70     | 69      | 51     | 148    | 80      |
|  | Payroll        | 5,310   | 5,567  | 6,518  | 5,416  | 4,463  | 5,697   | 4,304  | 5,389  | 6,193   |
| Marinas  | Establishments | 13      | 9      | 11     | 9      | 9      | 9       | 9      | 9      | 10      |
|  | Employees      | 208     | 162    | 166    | 153    | 120    | 113     | 123    | 116    | 117     |
|  | Payroll        | 5,237   | 3,779  | 4,003  | 3,304  | 3,412  | 3,421   | 3,756  | 3,664  | 4,079   |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# New England Region

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





## 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

Sixteen of the stocks or stock complexes covered in these FMPs were listed as overfished in 2020: 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), white hake (Gulf of Maine/Georges Bank stock), and Atlantic herring (added in 2020).

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 \$75.9 million in 2019. 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 2020 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 2019 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 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.

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.<sup>1</sup>

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 2020, the commercial fishing and seafood industry in Massachusetts generated the largest employment impacts in the New England Region with 127,680 full- and part-time jobs. Massachusetts also generated the largest sales impacts (\$14.8 billion), value-added impacts (\$5.6 billion), and income impacts (\$3.6 billion).

**Landings Revenue**

In 2020, landings revenue in New England totaled \$1.2 billion, a 7% increase from 2011 (an 8% decrease in real terms after adjusting for inflation) and a 20% decrease from 2019. Landings revenue was highest in Massachusetts (\$556.6 million), followed by Maine (\$519.8 million).

Shellfish and other landings revenue accounted for 91% of all landings revenue. In 2020, American lobster (\$527.8 million), sea scallop (\$346.7 million), and squid (\$34.6 million) had the highest landings revenue in this region. Together, these top three species accounted for 75% of total landings revenue.

From 2011 to 2020, Atlantic mackerel (1187%, 1012% in real terms), squid (51%, 30% in real terms), and American lobster (26%, 9% in real terms) had the largest increases, while Atlantic herring<sup>2</sup> (-72%, -76% in real terms), goosefish (-61%, -66% in real terms), and cod and haddock (-47%, -54% in real terms) had the largest decreases. From 2019 to 2020, Atlantic mackerel (123%) and cod and haddock (8%) had the largest increases, while goosefish (-34%), quahog clam (-32%), and squid (-25%) had the largest decreases.

<sup>1</sup> 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](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).]

<sup>2</sup> New Hampshire landings of Atlantic herring was suppressed in 2020 for data confidentiality. Typically, New Hampshire contributes 2-3% of landings and landings revenue so the state's landings were not deemed likely to offset the decline.

**Commercial Revenue: Largest Increases**

*From 2011:*

- Atlantic mackerel (1187%, 1012% in real terms)
- Squid (51%, 30% in real terms)
- American lobster (26%, 9% in real terms)

*From 2019:*

- Atlantic mackerel (123%)
- Cod and haddock (8%)

**Commercial Revenue: Largest Decreases**

*From 2011:*

- Atlantic herring (-72%, -76% in real terms)
- Goosefish (-61%, -66% in real terms)
- Cod and haddock (-47%, -54% in real terms)

*From 2019:*

- Goosefish (-34%)
- Quahog clam (-32%)
- Squid (-25%)

**Commercial Landings: Largest Increases**

*From 2011:*

- Atlantic mackerel (1253%)
- Squid (96%)
- Bluefin tuna (60%)

*From 2019:*

- Atlantic mackerel (125%)
- Cod and haddock (12%)
- Squid (0.1%)

**Commercial Landings: Largest Decreases**

*From 2011:*

- Atlantic herring (-88%)
- Flounders (-53%)
- Quahog clam (-34%)

*From 2019:*

- Quahog clam (-28%)
- Sea scallop (-23%)
- Goosefish (-20%)

**Landings**

In 2020, New England Region commercial fishermen landed over 485.1 million pounds of finfish and shellfish. This represents a 22% decrease from 2011 and a 6% decrease from 2019. American lobster contributed the highest landings volume in the region, accounting for 25% of total landing weight.

From 2011 to 2020, Atlantic mackerel (1253%), squid (96%), and bluefin tuna (60%) had the largest increases, while Atlantic herring (-88%), flounders (-53%), and quahog clam (-34%) had the largest decreases. From 2019 to 2020, Atlantic mackerel (125%), cod and haddock (12%), and squid (0.1%) had the largest increases, while quahog clam (-28%), sea scallop (-23%), and goosefish (-20%) had the largest decreases.

**Prices**

In 2020, quahog clam (\$10.03 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 2011 to 2020, Atlantic herring (130%, 99% in real terms), quahog clam (82%, 58% in real terms), and American lobster (31%, 13% in real terms) had the largest increases, while goosefish (-63%, -68% in real terms), bluefin tuna (-54%, -61% in real terms), and cod and haddock (-33%, -42% in real terms) had the largest decreases. From 2019 to 2020, sea scallop (4%) had the largest increases, while squid (-25%), goosefish (-18%), and flounders (-18%) 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.<sup>3</sup>

<sup>3</sup> Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.

**Key New England Region Recreational Species<sup>4</sup>**

- Atlantic cod
- Atlantic mackerel
- Bluefin tuna
- Bluefish
- Little tunny
- Scup
- Striped bass
- Summer flounder
- Tautog
- 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.<sup>5</sup> 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 2020 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 2020 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the New England Region were generated in Massachusetts (1,951 jobs), followed by Connecticut (956 jobs) and Maine (928 jobs). The largest sales impacts were observed in Massachusetts (\$244.5 million), followed by Connecticut (\$118.4 million) and Maine (\$103.1 million). The biggest income impacts were generated in Massachusetts (\$119.5 million), followed by Connecticut (\$50.4 million) and Rhode Island (\$37.6 million). The greatest value-added impacts were in Massachusetts (\$170.1 million), followed by Connecticut (\$91.6 million) and Maine (\$61.2 million).

A large portion of the approximately 544.4 million in trip expenses came from trips in the private boat (48%) and shore (46.6%) sectors.

**Participation**

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

**Fishing Trips**

In 2020, recreational fishermen took 16 million fishing trips in the New England Region. This number represented a 31% decrease from 2011 and a 7% decrease from 2019. The largest proportions of trips were taken in the shore mode (61%) and private boat (37%). States with the highest number of recorded trips in the New England Region were Massachusetts (5.9 million trips) and Connecticut (4.2 million trips).

**Harvest and Release Trends**

Of the New England Region's key species and species groups, scup (12.5 million fish), striped bass (12.4 million fish), and Atlantic mackerel (10.5 million fish) were most frequently caught by recreational fishermen. The following text box shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2011 to 2020, tautog (323%), little tunny (137%), and bluefin tuna (30%) had the largest increases, while winter flounder (-83%), Atlantic cod (-78%), and bluefish (-50%)

<sup>4</sup> 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.

<sup>5</sup> 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.]

had the largest decreases. From 2019 to 2020, bluefin tuna (128%), tautog (35%), and Atlantic cod (7%) had the largest increases, while summer flounder (-12%) and winter flounder (-5%) had the largest decreases.

**Harvest and Release: Largest Increases**

*From 2011:*

- Tautog (323%)
- Little tunny (137%)
- Bluefin tuna (30%)

*From 2019:*

- Bluefin tuna (128%)
- Tautog (35%)
- Atlantic cod (7%)

**Harvest and Release: Largest Decreases**

*From 2011:*

- Winter flounder (-83%)
- Atlantic cod (-78%)
- Bluefish (-50%)

*From 2019:*

- Summer flounder (-12%)
- Winter flounder (-5%)

**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.<sup>6</sup>

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.<sup>7</sup> 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, New Hampshire, and Rhode Island for 2019. Maine had the highest CFLQ at 28.37. Connecticut had a CFLQ value of 0.4.

In 2019, 379,115 employer establishments operated throughout the entire New England Region (including marine and non-marine related establishments). These establishments employed 6.5 million workers and had a total annual payroll of \$419.1 billion. The combined gross state product of Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island was approximately \$1.1 trillion in 2019.

**Seafood Sales and Processing<sup>8</sup>**

**Seafood Product Preparation and Packaging:** In 2019, there were 63 employer firms in the seafood product preparation and packaging sector (a 27% decrease from 2011) in the New England Region. The greatest number of establishments in this sector was in Massachusetts (35), followed by Maine (21) and New Hampshire (4).

**Retail Seafood Sales:** In 2019, there were 216 employer firms in the seafood retail sector in the New England Region (a 7% decrease from 2011). The greatest number of establishments in this sector was in Massachusetts (100), followed by Maine (52) and Connecticut (37).

**Wholesale Seafood Sales:** There were 321 employer firms in the seafood wholesale sector in the New England Region in 2019 (a 10% decrease from 2011). The greatest number of establishments in this sector was in Maine (149), followed by Massachusetts (125) and Rhode Island (22).

**Transportation Support and Marine Operations**

Data for the transportation support and marine operations

<sup>6</sup> 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/USAGDPDEFSAISMEI>).

<sup>7</sup> U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

<sup>8</sup> This report has provided economic statistics (number of firms and annual receipts) for non-employer firms in the seafood sales and processing sectors in previous volumes. Currently, this information is not available from the Census Bureau for 2019.

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 2019, the ship and boat building sector in the New England Region accounted for \$1.4 billion in payroll.



# Tables | New England Region





2020 Economic Impacts of the New England Seafood Industry (thousands of dollars; number of jobs)

| State         | Landings Revenue | With Imports |            |           |             | Without Imports |           |           |             |
|---------------|------------------|--------------|------------|-----------|-------------|-----------------|-----------|-----------|-------------|
|               |                  | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales     | Income    | Value Added |
| Connecticut   | 20,248           | 3,061        | 566,666    | 120,480   | 199,767     | 979             | 69,626    | 23,682    | 33,104      |
| Maine         | 519,785          | 36,948       | 3,115,055  | 900,167   | 1,352,075   | 29,816          | 1,839,695 | 631,399   | 905,847     |
| Massachusetts | 556,617          | 127,680      | 14,764,183 | 3,607,684 | 5,624,189   | 61,010          | 2,764,876 | 1,030,784 | 1,394,000   |
| New Hampshire | 29,635           | 4,929        | 700,257    | 168,569   | 266,074     | 2,033           | 137,133   | 50,326    | 69,008      |
| Rhode Island  | 78,403           | 5,586        | 621,476    | 168,298   | 256,873     | 3,923           | 270,412   | 97,598    | 136,932     |

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

| Category            | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total               | 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 | 1,204,688 |
| Finfish             | 190,565   | 219,605   | 179,414   | 159,743   | 151,661   | 148,540   | 136,865   | 125,180   | 117,394   | 106,626   |
| Shellfish and Other | 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 | 1,098,062 |
| Key Species         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| American lobster    | 418,118   | 426,233   | 456,652   | 563,255   | 618,839   | 667,261   | 564,599   | 627,677   | 634,830   | 527,831   |
| Atlantic herring    | 24,753    | 28,549    | 31,381    | 27,947    | 24,280    | 28,613    | 26,560    | 22,798    | 9,098     | 6,817     |
| Atlantic mackerel   | 295       | 3,480     | 1,738     | 3,111     | 3,355     | 3,149     | 3,390     | 2,974     | 1,704     | 3,800     |
| Bluefin tuna        | 9,258     | 8,388     | 3,649     | 6,108     | 7,716     | 11,932    | 7,554     | 9,344     | 8,081     | 6,737     |
| Cod and haddock     | 48,747    | 29,697    | 16,288    | 20,307    | 18,897    | 19,189    | 16,355    | 18,107    | 23,972    | 25,929    |
| Flounders           | 31,178    | 35,616    | 32,560    | 31,116    | 29,506    | 28,335    | 26,835    | 21,800    | 21,159    | 16,973    |
| Goosefish           | 19,791    | 19,675    | 13,575    | 14,101    | 14,628    | 15,042    | 15,300    | 12,147    | 11,902    | 7,804     |
| Quahog clam         | 8,317     | 9,276     | 9,077     | 9,922     | 11,223    | 11,935    | 11,568    | 12,580    | 14,872    | 10,051    |
| Sea scallop         | 353,106   | 389,980   | 366,305   | 297,793   | 287,478   | 305,566   | 372,158   | 410,927   | 433,821   | 346,714   |
| Squid               | 22,889    | 18,187    | 15,547    | 21,412    | 24,264    | 41,861    | 31,539    | 39,011    | 46,337    | 34,556    |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 619,939 | 691,103 | 634,506 | 659,379 | 608,160 | 624,066 | 578,811 | 596,618 | 516,729 | 485,097 |
| Finfish             | 311,735 | 332,277 | 317,736 | 317,014 | 280,978 | 247,510 | 221,138 | 205,206 | 142,557 | 141,552 |
| Shellfish and Other | 308,204 | 358,826 | 316,771 | 342,365 | 327,182 | 376,556 | 357,674 | 391,412 | 374,172 | 343,545 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 125,215 | 149,134 | 149,275 | 147,169 | 146,379 | 158,832 | 136,469 | 147,139 | 126,970 | 120,487 |
| Atlantic herring    | 174,291 | 190,558 | 203,673 | 197,908 | 171,779 | 135,156 | 104,578 | 93,100  | 24,702  | 20,825  |
| Atlantic mackerel   | 913     | 9,680   | 9,049   | 12,934  | 10,140  | 12,080  | 12,488  | 11,958  | 5,478   | 12,346  |
| Bluefin tuna        | 1,085   | 914     | 523     | 970     | 1,502   | 1,664   | 1,437   | 1,665   | 1,801   | 1,731   |
| Cod and haddock     | 30,090  | 14,671  | 9,042   | 15,133  | 15,257  | 14,237  | 13,932  | 16,569  | 21,453  | 23,994  |
| Flounders           | 17,950  | 18,408  | 16,367  | 14,270  | 12,510  | 9,143   | 10,048  | 7,902   | 8,739   | 8,497   |
| Goosefish           | 14,699  | 16,406  | 14,320  | 14,557  | 15,272  | 15,984  | 21,072  | 19,314  | 19,373  | 15,539  |
| Quahog clam         | 1,513   | 1,570   | 1,558   | 1,503   | 1,353   | 1,354   | 1,262   | 1,303   | 1,401   | 1,003   |
| Sea scallop         | 35,339  | 39,251  | 32,093  | 23,470  | 23,343  | 24,918  | 36,503  | 44,435  | 45,808  | 35,046  |
| Squid               | 27,909  | 16,155  | 14,576  | 28,783  | 23,698  | 39,377  | 35,851  | 41,235  | 54,703  | 54,750  |

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

| Species           | 2011 | 2012 | 2013  | 2014  | 2015  | 2016  | 2017  | 2018 | 2019  | 2020  |
|-------------------|------|------|-------|-------|-------|-------|-------|------|-------|-------|
| American lobster  | 3.34 | 2.86 | 3.06  | 3.83  | 4.23  | 4.20  | 4.14  | 4.27 | 5.00  | 4.38  |
| Atlantic herring  | 0.14 | 0.15 | 0.15  | 0.14  | 0.14  | 0.21  | 0.25  | 0.24 | 0.37  | 0.33  |
| Atlantic mackerel | 0.32 | 0.36 | 0.19  | 0.24  | 0.33  | 0.26  | 0.27  | 0.25 | 0.31  | 0.31  |
| Bluefin tuna      | 8.54 | 9.18 | 6.98  | 6.29  | 5.14  | 7.17  | 5.26  | 5.61 | 4.49  | 3.89  |
| Cod and haddock   | 1.62 | 2.02 | 1.80  | 1.34  | 1.24  | 1.35  | 1.17  | 1.09 | 1.12  | 1.08  |
| Flounders         | 1.74 | 1.93 | 1.99  | 2.18  | 2.36  | 3.10  | 2.67  | 2.76 | 2.42  | 2.00  |
| Goosefish         | 1.35 | 1.20 | 0.95  | 0.97  | 0.96  | 0.94  | 0.73  | 0.63 | 0.61  | 0.50  |
| Quahog clam       | 5.50 | 5.91 | 5.82  | 6.60  | 8.29  | 8.81  | 9.17  | 9.65 | 10.61 | 10.03 |
| Sea scallop       | 9.99 | 9.94 | 11.41 | 12.69 | 12.32 | 12.26 | 10.20 | 9.25 | 9.47  | 9.89  |
| Squid             | 0.82 | 1.13 | 1.07  | 0.74  | 1.02  | 1.06  | 0.88  | 0.95 | 0.85  | 0.63  |

**2020 Economic Impacts of New England Recreational Fishing (thousands of dollars; number of jobs)**

| State         | Trips | Jobs  | Sales   | Income  | Value Added |
|---------------|-------|-------|---------|---------|-------------|
| Connecticut   | 4,196 | 956   | 118,436 | 50,384  | 91,556      |
| Maine         | 2,110 | 928   | 103,084 | 37,137  | 61,191      |
| Massachusetts | 5,950 | 1,951 | 244,491 | 119,539 | 170,141     |
| New Hampshire | 920   | 370   | 38,492  | 15,625  | 25,694      |
| Rhode Island  | 2,848 | 706   | 76,487  | 37,615  | 54,858      |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 544,352    | 29,387   | 261,267      | 253,698 |

**Recreational Anglers by Residential Area (thousands of anglers)<sup>1,2</sup>**

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017 | 2018 | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| Total Anglers | 1,288 | 1,316 | 1,143 | 1,179 | 1,018 | 1,198 | 969  | 887  | NA   | NA   |
| Coastal       | 1,156 | 1,171 | 1,043 | 1,080 | 924   | 1,104 | 916  | 832  | NA   | NA   |
| Non-Coastal   | 131   | 144   | 100   | 99    | 95    | 94    | 53   | 55   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 23,271 | 22,538 | 19,749 | 18,730 | 16,945 | 17,482 | 16,750 | 15,104 | 17,211 | 16,024 |
| For-Hire     | 380    | 374    | 515    | 488    | 348    | 237    | 362    | 277    | 349    | 204    |
| Private Boat | 8,888  | 8,347  | 7,962  | 7,552  | 7,017  | 6,625  | 6,580  | 5,944  | 6,211  | 5,979  |
| Shore        | 14,004 | 13,818 | 11,272 | 10,690 | 9,581  | 10,620 | 9,808  | 8,883  | 10,652 | 9,840  |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>3,4</sup>**

| Species           | Category | 2011   | 2012   | 2013   | 2014  | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|-------------------|----------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| Atlantic cod      | H        | 967    | 690    | 842    | 408   | 59     | 167    | 87     | 16     | 55     | 15     |
|                   | R        | 1,684  | 991    | 1,799  | 1,168 | 1,074  | 1,787  | 2,226  | 1,173  | 491    | 567    |
| Atlantic mackerel | H        | 15,554 | 10,443 | 9,986  | 8,440 | 15,579 | 16,577 | 17,301 | 9,452  | 8,556  | 9,528  |
|                   | R        | 1,867  | 1,456  | 716    | 1,253 | 3,194  | 2,027  | 3,138  | 1,779  | 2,015  | 957    |
| Bluefin tuna      | H        | 6      | 12     | < 1    | 14    | 2      | 12     | 14     | 3      | 7      | 5      |
|                   | R        | 11     | 5      | < 1    | < 1   | 7      | 7      | 55     | < 1    | 3      | 17     |
| Bluefish          | H        | 1,799  | 4,744  | 5,720  | 2,383 | 1,293  | 1,676  | 1,601  | 614    | 1,316  | 681    |
|                   | R        | 5,033  | 4,819  | 5,304  | 4,215 | 2,781  | 2,464  | 2,406  | 1,189  | 1,903  | 2,722  |
| Little tunny      | H        | 0      | 18     | 3      | 15    | 54     | 70     | 28     | 16     | 41     | 19     |
|                   | R        | 85     | 202    | 26     | 1,034 | 159    | 811    | 285    | 341    | 153    | 182    |
| Scup              | H        | 5,261  | 5,421  | 8,170  | 6,655 | 4,394  | 4,693  | 5,167  | 8,714  | 7,724  | 6,532  |
|                   | R        | 7,161  | 8,249  | 7,298  | 6,481 | 5,325  | 9,253  | 9,928  | 8,048  | 6,675  | 6,000  |
| Striped bass      | H        | 1,270  | 1,347  | 1,373  | 930   | 718    | 454    | 607    | 543    | 419    | 197    |
|                   | R        | 6,872  | 6,635  | 10,837 | 8,942 | 8,971  | 11,905 | 23,539 | 17,602 | 11,876 | 12,215 |
| Summer flounder   | H        | 663    | 592    | 844    | 878   | 686    | 556    | 342    | 389    | 359    | 317    |
|                   | R        | 3,143  | 2,138  | 2,765  | 3,101 | 1,947  | 2,153  | 1,705  | 1,806  | 2,610  | 2,281  |
| Tautog            | H        | 294    | 849    | 1,087  | 1,199 | 873    | 730    | 995    | 483    | 1,042  | 790    |
|                   | R        | 1,369  | 2,481  | 3,081  | 5,498 | 3,045  | 3,124  | 3,906  | 3,420  | 4,156  | 6,250  |
| Winter flounder   | H        | 431    | 162    | 115    | 178   | 194    | 83     | 317    | 145    | 76     | 94     |
|                   | R        | 305    | 73     | 53     | 134   | 214    | 296    | 133    | 61     | 53     | 29     |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> Connecticut and Rhode Island anglers estimates are not available for the non-coastal mode.

<sup>3</sup> 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.

<sup>4</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.



# Tables | Connecticut



2020 Economic Impacts of the Connecticut Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |         |         |             | Without Imports |        |        |             |
|--------------------------------------|--------------|---------|---------|-------------|-----------------|--------|--------|-------------|
|                                      | Jobs         | Sales   | Income  | Value Added | Jobs            | Sales  | Income | Value Added |
| Total Impacts                        | 3,061        | 566,666 | 120,480 | 199,767     | 979             | 69,626 | 23,682 | 33,104      |
| Commercial Harvesters                | 505          | 35,906  | 9,849   | 15,174      | 505             | 35,906 | 9,849  | 15,174      |
| Seafood Processors and Dealers       | 132          | 16,357  | 6,247   | 8,075       | 63              | 7,772  | 2,968  | 3,837       |
| Importers                            | 1,273        | 421,419 | 67,540  | 128,467     | NA              | NA     | NA     | NA          |
| Seafood Wholesalers and Distributors | 191          | 36,410  | 11,918  | 16,012      | 20              | 3,778  | 1,237  | 1,661       |
| Retail                               | 960          | 56,574  | 24,927  | 32,039      | 391             | 22,170 | 9,629  | 12,431      |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 20,031 | 21,128 | 14,629 | 14,089 | 15,782 | 15,006 | 13,808 | 16,540 | 16,600 | 20,248 |
| Finfish             | 4,726  | 5,352  | 5,022  | 4,257  | 5,179  | 3,791  | 3,551  | 4,206  | 3,893  | 3,285  |
| Shellfish and Other | 15,305 | 15,777 | 9,607  | 9,832  | 10,603 | 11,215 | 10,257 | 12,334 | 12,708 | 16,963 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| American lobster    | 943    | 1,057  | 577    | 608    | 1,073  | 1,298  | 725    | 629    | 674    | 826    |
| Goosefish           | 976    | 1,040  | 1,022  | 510    | 680    | 468    | 360    | 334    | 215    | 56     |
| Loligo squid        | 694    | 1,861  | 1,257  | 1,354  | 1,631  | 2,199  | 996    | 2,246  | 3,558  | 1,239  |
| Other flounders     | 25     | 62     | 182    | 88     | 161    | 250    | 168    | 312    | 99     | 86     |
| Red hake            | 1,617  | 1,380  | 1,301  | 1,586  | 1,164  | 916    | 647    | 943    | 530    | 393    |
| Scups or porgies    | 408    | 837    | 705    | 573    | 819    | 779    | 559    | 631    | 807    | 770    |
| Sea scallop         | 13,007 | 12,005 | 7,220  | 7,219  | 7,039  | 5,881  | 7,205  | 7,727  | 6,505  | 13,825 |
| Silver hake         | 89     | 88     | 115    | 104    | 112    | 109    | 88     | 61     | 35     | 20     |
| Summer flounder     | 1,005  | 940    | 902    | 921    | 1,078  | 808    | 674    | 857    | 1,120  | 1,114  |
| Whelks and conchs   | 482    | 625    | 295    | 347    | 487    | 997    | 585    | 1,019  | 1,386  | 664    |

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

| Category            | 2011  | 2012  | 2013  | 2014  | 2015  | 2016   | 2017   | 2018   | 2019  | 2020  |
|---------------------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|
| Total               | 7,403 | 8,940 | 7,957 | 7,509 | 9,390 | 12,148 | 10,170 | 11,473 | 9,191 | 6,969 |
| Finfish             | 5,094 | 5,607 | 5,751 | 5,086 | 6,482 | 3,951  | 4,380  | 5,156  | 3,592 | 3,026 |
| Shellfish and Other | 2,310 | 3,333 | 2,205 | 2,423 | 2,908 | 8,196  | 5,790  | 6,317  | 5,599 | 3,942 |
| Key Species         | -     | -     | -     | -     | -     | -      | -      | -      | -     | -     |
| American lobster    | 199   | 248   | 127   | 127   | 205   | 254    | 130    | 111    | 112   | 159   |
| Goosefish           | 630   | 765   | 967   | 493   | 605   | 432    | 398    | 532    | 321   | 97    |
| Loligo squid        | 498   | 1,518 | 1,098 | 1,318 | 1,317 | 1,823  | 650    | 1,346  | 2,165 | 938   |
| Other flounders     | 16    | 36    | 138   | 57    | 81    | 105    | 71     | 155    | 50    | 59    |
| Red hake            | 2,041 | 1,848 | 1,647 | 2,037 | 1,320 | 948    | 746    | 1,010  | 705   | 466   |
| Scups or porgies    | 644   | 907   | 1,195 | 811   | 983   | 942    | 748    | 793    | 1,141 | 990   |
| Sea scallop         | 1,318 | 1,231 | 640   | 609   | 577   | 530    | 777    | 877    | 706   | 1,351 |
| Silver hake         | 158   | 185   | 173   | 167   | 146   | 164    | 133    | 138    | 99    | 59    |
| Summer flounder     | 401   | 315   | 284   | 253   | 287   | 191    | 135    | 177    | 291   | 370   |
| Whelks and conchs   | 82    | 94    | 81    | 103   | 81    | 211    | 194    | 448    | 465   | 239   |

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

| Species           | 2011 | 2012 | 2013  | 2014  | 2015  | 2016  | 2017 | 2018 | 2019 | 2020  |
|-------------------|------|------|-------|-------|-------|-------|------|------|------|-------|
| American lobster  | 4.74 | 4.26 | 4.53  | 4.78  | 5.23  | 5.10  | 5.57 | 5.69 | 6.05 | 5.19  |
| Goosefish         | 1.55 | 1.36 | 1.06  | 1.04  | 1.12  | 1.08  | 0.90 | 0.63 | 0.67 | 0.58  |
| Loligo squid      | 1.39 | 1.23 | 1.15  | 1.03  | 1.24  | 1.21  | 1.53 | 1.67 | 1.64 | 1.32  |
| Other flounders   | 1.56 | 1.72 | 1.32  | 1.55  | 1.98  | 2.39  | 2.38 | 2.01 | 1.98 | 1.46  |
| Red hake          | 0.79 | 0.75 | 0.79  | 0.78  | 0.88  | 0.97  | 0.87 | 0.93 | 0.75 | 0.84  |
| Scups or porgies  | 0.63 | 0.92 | 0.59  | 0.71  | 0.83  | 0.83  | 0.75 | 0.80 | 0.71 | 0.78  |
| Sea scallop       | 9.87 | 9.75 | 11.29 | 11.85 | 12.20 | 11.09 | 9.27 | 8.81 | 9.21 | 10.24 |
| Silver hake       | 0.56 | 0.47 | 0.66  | 0.62  | 0.77  | 0.66  | 0.66 | 0.44 | 0.35 | 0.35  |
| Summer flounder   | 2.50 | 2.98 | 3.18  | 3.63  | 3.76  | 4.23  | 5.01 | 4.83 | 3.86 | 3.01  |
| Whelks and conchs | 5.91 | 6.67 | 3.65  | 3.37  | 6.04  | 4.72  | 3.01 | 2.27 | 2.98 | 2.78  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Connecticut Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs | Sales   | Income | Value Added |
|------------------------------|------|---------|--------|-------------|
| For-Hire                     | 35   | 4,072   | 1,601  | 2,635       |
| Private Boat                 | 390  | 52,069  | 21,862 | 39,533      |
| Shore                        | 530  | 62,295  | 26,921 | 49,388      |
| Total Durable Expenditures   | NA   | NA      | NA     | NA          |
| Total State Economic Impacts | 956  | 118,436 | 50,384 | 91,556      |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 125,625    | 2,799    | 62,166       | 60,660 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 518  | 464  | 240  | 273  | 309  | 385  | 398  | 389  | NA   | NA   |
| Coastal       | 420  | 397  | 198  | 209  | 252  | 297  | 296  | 292  | NA   | NA   |
| Non-Coastal   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |
| Out-of-State  | 98   | 67   | 43   | 64   | 57   | 88   | 102  | 96   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 3,479 | 3,734 | 3,506 | 3,641 | 3,844 | 4,230 | 3,937 | 3,543 | 3,766 | 4,196 |
| For-Hire     | 45    | 27    | 64    | 62    | 77    | 38    | 36    | 38    | 41    | 23    |
| Private Boat | 1,688 | 1,776 | 1,730 | 1,693 | 1,576 | 1,629 | 1,337 | 1,422 | 1,453 | 1,474 |
| Shore        | 1,746 | 1,931 | 1,712 | 1,885 | 2,192 | 2,563 | 2,565 | 2,083 | 2,272 | 2,699 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3</sup>**

| Species         | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-----------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic cod    | H        | NA    | 2     | NA    | NA    | NA    | 19    | 2     | 2     | 26    | < 1   |
|                 | R        | NA    | 0     | NA    | NA    | NA    | 12    | < 1   | < 1   | 12    | 2     |
| Bluefish        | H        | 697   | 1,399 | 3,476 | 1,179 | 501   | 554   | 586   | 312   | 670   | 298   |
|                 | R        | 1,958 | 1,495 | 1,594 | 1,062 | 890   | 818   | 1,763 | 505   | 820   | 1,109 |
| Hickory shad    | H        | 65    | 61    | 15    | 92    | 0     | 36    | 19    | 2     | NA    | 0     |
|                 | R        | 0     | 0     | 4     | 29    | 7     | 40    | 22    | 40    | NA    | 33    |
| Little tunny    | H        | 0     | < 1   | NA    | 2     | 0     | < 1   | 14    | 3     | < 1   | < 1   |
|                 | R        | 20    | 105   | NA    | 17    | 3     | 45    | 50    | 158   | 20    | 12    |
| Scup            | H        | 1,940 | 1,840 | 1,879 | 1,189 | 1,198 | 1,352 | 1,695 | 3,071 | 2,491 | 3,663 |
|                 | R        | 1,170 | 2,052 | 2,775 | 2,729 | 1,814 | 3,288 | 4,646 | 3,029 | 2,396 | 3,205 |
| Striped bass    | H        | 91    | 137   | 270   | 132   | 141   | 63    | 95    | 85    | 67    | 71    |
|                 | R        | 1,571 | 892   | 2,312 | 740   | 1,761 | 1,208 | 4,994 | 7,514 | 2,287 | 2,763 |
| Summer flounder | H        | 99    | 135   | 529   | 281   | 252   | 338   | 121   | 153   | 90    | 127   |
|                 | R        | 778   | 650   | 1,684 | 1,544 | 1,075 | 1,409 | 811   | 877   | 1,065 | 1,156 |
| Tautog          | H        | 42    | 411   | 307   | 516   | 389   | 312   | 218   | 75    | 504   | 376   |
|                 | R        | 72    | 1,287 | 1,276 | 2,908 | 1,260 | 1,809 | 1,472 | 1,014 | 1,718 | 2,976 |
| White perch     | H        | 0     | 50    | 0     | 9     | < 1   | 22    | 114   | 0     | < 1   | < 1   |
|                 | R        | 2     | 115   | 6     | 26    | < 1   | 29    | 5     | 37    | 1     | < 1   |
| Winter flounder | H        | 44    | 52    | 0     | 1     | 45    | 1     | < 1   | 2     | 0     | < 1   |
|                 | R        | 2     | 29    | 8     | 1     | 83    | 7     | < 1   | < 1   | 1     | < 1   |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Connecticut State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 88,916 (1.1%)                       | 1,538,341 (1.2%)               | 100 (1.4%)                           | 147 (1.3%)                                  | 288                                       | 0.4                                  |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 14    | 13    | 25    | 26    | 25    | 22    | 19    | 17    | NA   |
|   | Receipts  | 1,066 | 882   | 3,058 | 3,969 | 2,692 | 1,635 | 1,397 | 1,135 | NA   |
| Seafood sales, retail                     | Firms     | 21    | 21    | 20    | 18    | 19    | 33    | 26    | 27    | NA   |
|   | Receipts  | 2,165 | 1,388 | 1,543 | 1,655 | 1,813 | 3,965 | 2,520 | 3,963 | NA   |

Seafood Sales and Processing — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector                                    | Statistic      | 2011  | 2012  | 2013  | 2014  | 2015   | 2016   | 2017  | 2018  | 2019  |
|---|----------------|-------|-------|-------|-------|--------|--------|-------|-------|-------|
| Seafood product preparation and packaging | Establishments | 2     | 1     | 1     | 1     | 1      | NA     | NA    | NA    | 3     |
|   | Employees      | ds    | ds    | ds    | ds    | ds     | NA     | NA    | NA    | 12    |
|   | Payroll        | ds    | ds    | ds    | ds    | ds     | NA     | NA    | NA    | 699   |
| Seafood Sales, Wholesale                  | Establishments | 24    | 16    | 17    | 19    | 20     | 18     | 17    | 15    | 15    |
|   | Employees      | 212   | 187   | 178   | 172   | 211    | 158    | 153   | 155   | 157   |
| Seafood sales, retail                     | Payroll        | 9,224 | 8,237 | 7,920 | 8,174 | 20,558 | 18,205 | 6,966 | 7,286 | 7,640 |
|   | Establishments | 37    | 37    | 36    | 35    | 34     | 32     | 33    | 35    | 37    |
|   | Employees      | 171   | 233   | 218   | 244   | 230    | 261    | 230   | 227   | 247   |
|   | Payroll        | 4,824 | 6,349 | 6,344 | 7,380 | 7,533  | 8,742  | 8,264 | 8,327 | 9,496 |

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

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018    | 2019    |
|--|----------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| Ship and Boat Building                         | Establishments | 11     | 8      | 7      | 9      | 8      | 10     | 9      | 11      | 12      |
|  | Employees      | ds     | ds     | ds     | ds     | ds     | ds     | ds     | 11,373  | 11,931  |
|  | Payroll        | ds     | ds     | ds     | ds     | ds     | ds     | ds     | 959,192 | 960,477 |
| Deep Sea Freight Transportation                | Establishments | 11     | 14     | 11     | 11     | 11     | 12     | 10     | 9       | 9       |
|  | Employees      | 225    | 297    | 184    | ds     | 164    | 162    | 146    | 97      | 87      |
|  | Payroll        | 41,302 | 37,711 | 28,513 | 26,891 | 26,880 | 27,211 | 25,371 | 19,429  | 19,039  |
| Deep Sea Passenger Transportation              | Establishments | 1      | 1      | NA     | NA     | NA     | 1      | NA     | NA      | NA      |
|  | Employees      | ds     | ds     | NA     | NA     | NA     | ds     | NA     | NA      | NA      |
|  | Payroll        | ds     | ds     | NA     | NA     | NA     | ds     | NA     | NA      | NA      |
| Coastal and Great Lakes Freight Transportation | Establishments | 5      | 10     | 9      | 9      | 9      | 8      | 8      | 8       | 7       |
|  | Employees      | 95     | 256    | ds     | ds     | 216    | 232    | 298    | 265     | 222     |
|  | Payroll        | 7,856  | 32,789 | ds     | ds     | 27,698 | 34,550 | 37,814 | 32,252  | 28,519  |
| Port and Harbor Operations                     | Establishments | 5      | 4      | 5      | 5      | 5      | 4      | 3      | 4       | 4       |
|  | Employees      | 34     | ds     | ds     | ds     | 22     | 19     | ds     | 38      | 35      |
|  | Payroll        | 848    | 1,414  | ds     | ds     | 1,142  | 1,465  | ds     | 3,755   | 3,647   |
| Marine Cargo Handling                          | Establishments | 3      | NA     | 1      | 1      | 1      | 2      | 4      | 4       | 4       |
|  | Employees      | ds     | NA     | ds     | ds     | ds     | ds     | ds     | 85      | 78      |
|  | Payroll        | ds     | NA     | ds     | ds     | ds     | ds     | ds     | 9,494   | 7,715   |
| Navigational Services to Shipping              | Establishments | 5      | 2      | 2      | 4      | 3      | 1      | 3      | 3       | 6       |
|  | Employees      | 5      | ds     | ds     | 3      | 2      | ds     | 4      | 2       | 7       |
|  | Payroll        | 898    | ds     | ds     | 185    | 159    | ds     | 175    | 265     | 445     |
| Marinas  | Establishments | 128    | 130    | 130    | 128    | 125    | 125    | 116    | 125     | 131     |
|  | Employees      | 1,283  | 1,257  | 1,265  | 1,174  | 1,153  | 1,193  | 1,167  | 1,105   | 1,152   |
|  | Payroll        | 59,851 | 60,803 | 63,211 | 59,054 | 59,526 | 62,504 | 51,217 | 57,582  | 59,206  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | Maine





2020 Economic Impacts of the Maine Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |           |         |             | Without Imports |           |         |             |
|--------------------------------------|--------------|-----------|---------|-------------|-----------------|-----------|---------|-------------|
|                                      | Jobs         | Sales     | Income  | Value Added | Jobs            | Sales     | Income  | Value Added |
| Total Impacts                        | 36,948       | 3,115,055 | 900,167 | 1,352,075   | 29,816          | 1,839,695 | 631,399 | 905,847     |
| Commercial Harvesters                | 14,518       | 997,476   | 273,447 | 446,708     | 14,518          | 997,476   | 273,447 | 446,708     |
| Seafood Processors and Dealers       | 2,825        | 236,233   | 94,845  | 121,190     | 2,241           | 187,380   | 75,231  | 96,128      |
| Importers                            | 3,085        | 1,021,380 | 163,696 | 311,361     | NA              | NA        | NA      | NA          |
| Seafood Wholesalers and Distributors | 1,489        | 170,021   | 60,989  | 79,362      | 843             | 96,252    | 34,527  | 44,928      |
| Retail                               | 15,032       | 689,946   | 307,190 | 393,454     | 12,215          | 558,587   | 248,194 | 318,082     |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 434,805 | 530,398 | 478,881 | 595,694 | 628,954 | 735,803 | 577,459 | 645,338 | 657,033 | 519,785 |
| Finfish             | 29,631  | 62,964  | 57,269  | 34,675  | 33,498  | 29,782  | 25,747  | 24,985  | 14,767  | 11,537  |
| Shellfish and Other | 405,174 | 467,435 | 421,611 | 561,019 | 595,456 | 706,022 | 551,712 | 620,353 | 642,265 | 508,248 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 334,702 | 342,529 | 371,078 | 461,851 | 502,565 | 541,318 | 439,300 | 491,574 | 491,643 | 412,607 |
| Atlantic herring    | 14,396  | 14,494  | 15,492  | 16,212  | 13,526  | 19,488  | 17,768  | 16,701  | 5,979   | 4,259   |
| Bloodworms          | 5,847   | 5,191   | 5,644   | 6,085   | 6,333   | 6,585   | 6,444   | 6,659   | NA      | 6,786   |
| Blue mussel         | 1,969   | 1,930   | 2,341   | 2,153   | 2,458   | 2,422   | 2,126   | 2,738   | 3,406   | 2,782   |
| Cod and haddock     | 1,653   | 1,337   | 951     | 1,267   | 1,069   | 886     | 770     | 978     | 745     | 480     |
| Goosefish           | 578     | 1,059   | 773     | 566     | 616     | 459     | 623     | 675     | 762     | 315     |
| Ocean quahog clam   | 2,117   | 1,737   | 1,378   | 1,238   | 1,311   | 1,299   | 1,203   | 1,072   | 894     | 614     |
| Pollock             | 1,929   | 2,527   | 2,562   | 2,878   | 1,965   | 1,663   | 1,182   | 988     | 639     | 551     |
| Sea urchins         | 5,113   | 5,024   | 5,781   | 5,282   | NA      | 6,619   | 6,118   | 6,211   | 5,836   | 3,865   |
| Softshell clam      | 15,944  | 15,668  | 18,104  | 20,233  | 22,841  | 16,231  | 12,347  | 12,922  | 18,282  | 15,941  |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 256,584 | 289,860 | 267,003 | 278,048 | 252,484 | 276,904 | 231,220 | 252,171 | 181,315 | 165,375 |
| Finfish             | 102,710 | 99,087  | 105,521 | 110,682 | 92,216  | 86,720  | 72,728  | 72,258  | 26,795  | 26,002  |
| Shellfish and Other | 153,874 | 190,773 | 161,482 | 167,365 | 160,268 | 190,183 | 158,492 | 179,913 | 154,520 | 139,373 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 104,957 | 127,464 | 128,016 | 124,941 | 122,686 | 132,750 | 112,169 | 121,226 | 101,940 | 97,907  |
| Atlantic herring    | 97,066  | 92,528  | 98,769  | 103,530 | 86,441  | 78,425  | 65,485  | 62,272  | 13,638  | 11,681  |
| Bloodworms          | 526     | 457     | 470     | 448     | 401     | 413     | 403     | 415     | NA      | 392     |
| Blue mussel         | 2,810   | 2,427   | 2,282   | 2,270   | 2,401   | 1,745   | 1,233   | 1,674   | 1,965   | 1,575   |
| Cod and haddock     | 835     | 536     | 400     | 685     | 658     | 489     | 449     | 747     | 459     | 275     |
| Goosefish           | 533     | 1,075   | 874     | 633     | 740     | 542     | 883     | 1,149   | 1,292   | 749     |
| Ocean quahog clam   | 645     | 698     | 557     | 438     | 416     | 367     | 346     | 295     | 233     | 161     |
| Pollock             | 2,325   | 2,666   | 2,227   | 2,319   | 1,381   | 1,049   | 848     | 818     | 488     | 418     |
| Sea urchins         | 2,407   | 1,904   | 1,988   | 1,958   | NA      | 2,058   | 1,956   | 2,045   | 1,707   | 1,281   |
| Softshell clam      | 2,383   | 2,260   | 2,297   | 2,080   | 1,891   | 1,560   | 1,411   | 1,468   | 1,606   | 1,360   |

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

| Species           | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| American lobster  | 3.19  | 2.69  | 2.90  | 3.70  | 4.10  | 4.08  | 3.92  | 4.06  | 4.82  | 4.21  |
| Atlantic herring  | 0.15  | 0.16  | 0.16  | 0.16  | 0.16  | 0.25  | 0.27  | 0.27  | 0.44  | 0.36  |
| Bloodworms        | 11.12 | 11.36 | 12.00 | 13.59 | 15.80 | 15.93 | 15.99 | 16.04 | NA    | 17.32 |
| Blue mussel       | 0.70  | 0.80  | 1.03  | 0.95  | 1.02  | 1.39  | 1.73  | 1.64  | 1.73  | 1.77  |
| Cod and haddock   | 1.98  | 2.50  | 2.38  | 1.85  | 1.62  | 1.81  | 1.72  | 1.31  | 1.63  | 1.74  |
| Goosefish         | 1.09  | 0.99  | 0.88  | 0.89  | 0.83  | 0.85  | 0.71  | 0.59  | 0.59  | 0.42  |
| Ocean quahog clam | 3.28  | 2.49  | 2.47  | 2.82  | 3.15  | 3.54  | 3.48  | 3.63  | 3.84  | 3.82  |
| Pollock           | 0.83  | 0.95  | 1.15  | 1.24  | 1.42  | 1.58  | 1.39  | 1.21  | 1.31  | 1.32  |
| Sea urchins       | 2.12  | 2.64  | 2.91  | 2.70  | NA    | 3.22  | 3.13  | 3.04  | 3.42  | 3.02  |
| Softshell clam    | 6.69  | 6.93  | 7.88  | 9.73  | 12.08 | 10.40 | 8.75  | 8.81  | 11.39 | 11.72 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Maine Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs | Sales   | Income | Value Added |
|------------------------------|------|---------|--------|-------------|
| For-Hire                     | 84   | 8,106   | 2,820  | 4,712       |
| Private Boat                 | 129  | 15,894  | 5,332  | 8,973       |
| Shore                        | 714  | 79,085  | 28,985 | 47,505      |
| Total Durable Expenditures   | NA   | NA      | NA     | NA          |
| Total State Economic Impacts | 928  | 103,084 | 37,137 | 61,191      |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 78,430     | 4,911    | 15,261       | 58,258 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 198  | 248  | 235  | 213  | 145  | 237  | 269  | 130  | NA   | NA   |
| Coastal       | 85   | 116  | 102  | 79   | 67   | 114  | 114  | 57   | NA   | NA   |
| Non-Coastal   | 7    | 6    | 4    | 5    | 4    | 13   | 10   | 2    | NA   | NA   |
| Out-of-State  | 107  | 126  | 129  | 129  | 74   | 110  | 145  | 71   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 1,771 | 1,768 | 1,896 | 1,976 | 1,705 | 1,948 | 1,748 | 1,626 | 1,675 | 2,110 |
| For-Hire     | 23    | 23    | 30    | 27    | 23    | 17    | 16    | 29    | 26    | 26    |
| Private Boat | 892   | 788   | 821   | 711   | 660   | 664   | 650   | 575   | 562   | 609   |
| Shore        | 856   | 958   | 1,045 | 1,239 | 1,022 | 1,268 | 1,082 | 1,022 | 1,087 | 1,475 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3,4</sup>**

| Species           | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| American shad     | H        | 0     | 0     | 0     | 6     | 6     | 4     | 4     | 4     | 0     | 0     |
|                   | R        | 15    | 43    | 5     | 0     | 50    | 20    | 40    | 41    | 92    | < 1   |
| Atlantic cod      | H        | 98    | 48    | 110   | 70    | 3     | 4     | < 1   | < 1   | 9     | < 1   |
|                   | R        | 309   | 207   | 157   | 147   | 225   | 148   | 127   | 82    | 67    | 71    |
| Atlantic mackerel | H        | 5,416 | 3,917 | 2,268 | 2,331 | 3,172 | 4,929 | 1,934 | 2,698 | 2,670 | 3,296 |
|                   | R        | 1,215 | 739   | 214   | 603   | 488   | 963   | 215   | 154   | 605   | 333   |
| Blue shark        | H        | 0     | 0     | 0     | 0     | 0     | 0     | NA    | 0     | 0     | 0     |
|                   | R        | 24    | 7     | 36    | 20    | 35    | 2     | NA    | 10    | 6     | 10    |
| Bluefin tuna      | H        | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | < 1   |
|                   | R        | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | 0     |
| Bluefish          | H        | 2     | 22    | 67    | < 1   | 1     | < 1   | < 1   | NA    | NA    | NA    |
|                   | R        | 10    | 144   | 65    | 0     | 0     | < 1   | 0     | NA    | NA    | NA    |
| Haddock           | H        | 25    | 6     | 13    | 9     | 36    | 45    | 62    | 98    | 75    | 110   |
|                   | R        | 8     | 30    | 94    | 212   | 122   | 166   | 182   | 88    | 123   | 233   |
| Pollock           | H        | 206   | 122   | 267   | 371   | 194   | 82    | 123   | 139   | 110   | 204   |
|                   | R        | 493   | 291   | 839   | 441   | 310   | 206   | 134   | 239   | 249   | 168   |
| Striped bass      | H        | 49    | 31    | 73    | 86    | 14    | 14    | 22    | 16    | 38    | 19    |
|                   | R        | 453   | 657   | 985   | 1,023 | 824   | 2,162 | 2,719 | 2,174 | 1,525 | 2,142 |
| Winter flounder   | H        | NA    | NA    | 0     | 0     | NA    | 0     | 12    | NA    | 15    | 38    |
|                   | R        | NA    | NA    | 2     | 17    | NA    | 47    | 0     | NA    | 19    | 0     |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.<sup>4</sup> Blue shark include blue shark and albacore.

2019 Maine State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 41,843 (0.5%)                       | 522,191 (0.4%)                 | 24.1 (0.3%)                          | 39.3 (0.3%)                                 | 68.5                                      | 28.37                                |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 51    | 51    | 36    | 37    | 32    | 31    | 32    | 36    | NA   |
|   | Receipts  | 3,077 | 3,294 | 2,757 | 4,142 | 2,583 | 3,070 | 2,715 | 3,676 | NA   |
| Seafood sales, retail                     | Firms     | 48    | 46    | 49    | 57    | 50    | 47    | 54    | 39    | NA   |
|   | Receipts  | 4,608 | 4,492 | 4,200 | 4,664 | 5,848 | 7,586 | 5,814 | 5,442 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 28     | 29     | 28     | 30     | 32     | 27     | 22     | 24     | 21     |
|   | Employees      | 500    | 492    | 376    | 546    | 552    | 509    | 494    | 546    | 572    |
|   | Payroll        | 10,353 | 12,011 | 11,797 | 18,713 | 18,506 | 18,774 | 16,933 | 18,587 | 19,892 |
| Seafood Sales, Wholesale                  | Establishments | 152    | 136    | 150    | 142    | 146    | 150    | 146    | 148    | 149    |
|   | Employees      | 1,109  | 1,047  | 1,340  | 1,047  | 1,123  | 1,174  | 1,165  | 1,255  | 1,372  |
|   | Payroll        | 38,412 | 40,734 | 46,782 | 40,392 | 42,337 | 49,043 | 52,014 | 55,388 | 60,152 |
| Seafood sales, retail                     | Establishments | 51     | 48     | 51     | 54     | 60     | 59     | 53     | 55     | 52     |
|   | Employees      | 177    | 215    | 243    | 235    | 237    | 229    | 209    | 197    | 223    |
|   | Payroll        | 5,108  | 6,902  | 7,618  | 7,558  | 9,601  | 9,162  | 9,890  | 8,475  | 8,955  |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 76     | 76     | 79     | 84     | 84      | 83      | 82      | 81      | 77      |
|  | Employees      | ds     | ds     | ds     | ds     | 6,654   | 7,091   | 6,787   | 6,856   | 6,985   |
|  | Payroll        | ds     | ds     | ds     | ds     | 418,591 | 422,525 | 397,918 | 423,509 | 405,045 |
| Deep Sea Passenger 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      |
| Coastal and Great Lakes Freight Transportation | Establishments | 4      | 3      | 3      | 3      | 3       | 3       | 3       | 3       | NA      |
|  | Employees      | ds     | ds     | ds     | ds     | 17      | ds      | ds      | 12      | NA      |
| Port and Harbor Operations                     | Payroll        | 1,105  | ds     | ds     | ds     | 1,071   | ds      | ds      | 1,102   | NA      |
|  | Establishments | 1      | 6      | 3      | 3      | 3       | 3       | 4       | 3       | 3       |
|  | Employees      | ds     | ds     | 2      | ds     | 4       | ds      | ds      | 33      | 14      |
| Marine Cargo Handling                          | Payroll        | ds     | ds     | 130    | 113    | 142     | ds      | ds      | 1,599   | 653     |
|  | Establishments | 2      | 1      | 2      | 2      | 2       | 4       | 3       | 3       | 3       |
|  | Employees      | ds     | ds     | ds     | ds     | ds      | 20      | ds      | 32      | 31      |
| Navigational Services to Shipping              | Payroll        | ds     | ds     | ds     | ds     | ds      | 1,857   | ds      | 1,823   | 1,695   |
|  | Establishments | 13     | 13     | 14     | 14     | 13      | 13      | 15      | 14      | 16      |
|  | Employees      | 63     | 65     | 86     | 75     | 77      | 65      | 61      | 77      | 74      |
| Marinas  | Payroll        | 4,776  | 4,730  | 5,660  | 5,243  | 4,752   | 3,852   | 4,477   | 5,000   | 7,526   |
|  | Establishments | 84     | 80     | 79     | 79     | 80      | 79      | 77      | 75      | 77      |
|  | Employees      | 349    | 428    | 403    | 435    | 430     | 471     | 376     | 378     | 417     |
|  | Payroll        | 15,426 | 17,102 | 17,476 | 19,694 | 20,400  | 22,618  | 18,912  | 19,728  | 21,073  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | Massachusetts



2020 Economic Impacts of the Massachusetts Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |            |           |             | Without Imports |           |           |             |
|--------------------------------------|--------------|------------|-----------|-------------|-----------------|-----------|-----------|-------------|
|                                      | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales     | Income    | Value Added |
| Total Impacts                        | 127,680      | 14,764,183 | 3,607,684 | 5,624,189   | 61,010          | 2,764,876 | 1,030,784 | 1,394,000   |
| Commercial Harvesters                | 10,969       | 1,017,559  | 324,980   | 476,017     | 10,969          | 1,017,559 | 324,980   | 476,017     |
| Seafood Processors and Dealers       | 13,705       | 2,118,052  | 807,528   | 1,049,927   | 2,991           | 462,300   | 176,256   | 229,164     |
| Importers                            | 27,228       | 9,015,166  | 1,444,852 | 2,748,217   | NA              | NA        | NA        | NA          |
| Seafood Wholesalers and Distributors | 4,806        | 910,134    | 297,417   | 403,549     | 1,121           | 212,213   | 69,348    | 94,094      |
| Retail                               | 70,972       | 1,703,271  | 732,907   | 946,478     | 45,929          | 1,072,804 | 460,201   | 594,725     |

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)<sup>1</sup>

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 571,278 | 615,122 | 562,193 | 522,314 | 523,410 | 551,877 | 605,213 | 647,824 | 681,044 | 556,617 |
| Finfish             | 126,973 | 118,925 | 87,251  | 93,123  | 88,753  | 91,642  | 86,004  | 74,277  | 76,326  | 73,809  |
| Shellfish and Other | 444,306 | 496,198 | 474,941 | 429,191 | 434,657 | 460,235 | 519,210 | 573,547 | 604,718 | 482,808 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 53,365  | 53,360  | 58,663  | 68,336  | 78,290  | 82,383  | 81,193  | 88,845  | 95,456  | 78,309  |
| Atlantic herring    | 8,802   | 11,529  | 10,750  | 9,432   | 8,787   | 7,589   | 7,019   | 5,069   | 2,685   | 2,437   |
| Atlantic mackerel   | 137     | 654     | 1,223   | 2,421   | 1,952   | 2,600   | 2,775   | 1,579   | 1,134   | 2,344   |
| Cod and haddock     | 43,379  | 25,847  | 14,037  | 18,065  | 17,433  | 17,735  | 15,131  | 16,477  | 22,798  | 24,921  |
| Eastern oyster      | 9,080   | 12,072  | 13,896  | 19,575  | 22,679  | 22,512  | 28,387  | 28,387  | 30,147  | 18,391  |
| Flounders           | 22,124  | 25,191  | 20,780  | 18,183  | 18,118  | 18,317  | 18,505  | 14,762  | 12,483  | 10,309  |
| Goosefish           | 13,429  | 13,578  | 8,869   | 10,028  | 10,251  | 11,291  | 11,833  | 8,453   | 8,101   | 6,033   |
| Ocean quahog clam   | NA      | NA      | NA      | 9,814   | 9,063   | NA      | 10,719  | NA      | 8,233   | 6,959   |
| Other clams         | 14,424  | 20,026  | 23,675  | 22,221  | 22,769  | 24,017  | 25,056  | 25,364  | 24,645  | 19,222  |
| Sea scallop         | 330,954 | 364,902 | 334,221 | 271,373 | 264,741 | 281,191 | 331,278 | 373,829 | 397,180 | 313,957 |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 264,891 | 294,923 | 261,451 | 272,926 | 259,464 | 244,388 | 242,826 | 241,753 | 234,198 | 227,918 |
| Finfish             | 164,278 | 178,295 | 150,372 | 161,303 | 146,249 | 127,170 | 115,257 | 102,156 | 86,061  | 93,099  |
| Shellfish and Other | 100,613 | 116,628 | 111,079 | 111,622 | 113,215 | 117,218 | 127,569 | 139,597 | 148,136 | 134,818 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 13,385  | 14,486  | 15,159  | 15,313  | 16,450  | 17,785  | 16,493  | 17,697  | 17,029  | 15,712  |
| Atlantic herring    | 66,970  | 81,781  | 74,992  | 77,873  | 70,888  | 47,149  | 31,687  | 27,078  | 9,873   | 8,629   |
| Atlantic mackerel   | 515     | 4,131   | 7,279   | 10,755  | 7,059   | 10,556  | 10,403  | 7,534   | 3,575   | 8,799   |
| Cod and haddock     | 27,153  | 13,028  | 8,107   | 13,977  | 14,393  | 13,445  | 13,280  | 15,378  | 20,760  | 23,346  |
| Eastern oyster      | 227     | 308     | 328     | 444     | 504     | 494     | 618     | 651     | 687     | 383     |
| Flounders           | 13,707  | 14,264  | 11,541  | 9,050   | 8,412   | 6,144   | 7,456   | 6,178   | 5,945   | 5,984   |
| Goosefish           | 10,142  | 11,567  | 9,498   | 10,533  | 11,084  | 12,476  | 17,181  | 14,034  | 14,025  | 12,274  |
| Ocean quahog clam   | NA      | NA      | NA      | 13,422  | 13,340  | NA      | 14,190  | NA      | 11,070  | 9,678   |
| Other clams         | 12,514  | 18,378  | 21,787  | 20,195  | 19,567  | 20,390  | 19,246  | 17,895  | 16,523  | 12,609  |
| Sea scallop         | 33,093  | 36,722  | 29,253  | 21,316  | 21,491  | 22,844  | 32,488  | 40,382  | 41,851  | 31,690  |

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

| Species           | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| American lobster  | 3.99  | 3.68  | 3.87  | 4.46  | 4.76  | 4.63  | 4.92  | 5.02  | 5.61  | 4.98  |
| Atlantic herring  | 0.13  | 0.14  | 0.14  | 0.12  | 0.12  | 0.16  | 0.22  | 0.19  | 0.27  | 0.28  |
| Atlantic mackerel | 0.27  | 0.16  | 0.17  | 0.23  | 0.28  | 0.25  | 0.27  | 0.21  | 0.32  | 0.27  |
| Cod and haddock   | 1.60  | 1.98  | 1.73  | 1.29  | 1.21  | 1.32  | 1.14  | 1.07  | 1.10  | 1.07  |
| Eastern oyster    | 39.99 | 39.19 | 42.41 | 44.12 | 44.98 | 45.58 | 45.96 | 43.63 | 43.90 | 47.98 |
| Flounders         | 1.61  | 1.77  | 1.80  | 2.01  | 2.15  | 2.98  | 2.48  | 2.39  | 2.10  | 1.72  |
| Goosefish         | 1.32  | 1.17  | 0.93  | 0.95  | 0.92  | 0.90  | 0.69  | 0.60  | 0.58  | 0.49  |
| Ocean quahog clam | NA    | NA    | NA    | 0.73  | 0.68  | NA    | 0.76  | NA    | 0.74  | 0.72  |
| Other clams       | 1.15  | 1.09  | 1.09  | 1.10  | 1.16  | 1.18  | 1.30  | 1.42  | 1.49  | 1.52  |
| Sea scallop       | 10.00 | 9.94  | 11.43 | 12.73 | 12.32 | 12.31 | 10.20 | 9.26  | 9.49  | 9.91  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Massachusetts Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 147   | 16,826  | 6,543   | 10,771      |
| Private Boat                 | 845   | 111,789 | 54,891  | 76,569      |
| Shore                        | 959   | 115,876 | 58,105  | 82,801      |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 1,951 | 244,491 | 119,539 | 170,141     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 241,745    | 10,339   | 146,121      | 85,284 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014  | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|-------|------|------|------|------|------|------|
| Total Anglers | 897  | 941  | 898  | 1,196 | 711  | 837  | 599  | 550  | NA   | NA   |
| Coastal       | 490  | 502  | 546  | 582   | 428  | 476  | 350  | 335  | NA   | NA   |
| Non-Coastal   | 115  | 130  | 77   | 82    | 85   | 73   | 38   | 45   | NA   | NA   |
| Out-of-State  | 293  | 309  | 275  | 532   | 199  | 289  | 211  | 169  | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011   | 2012   | 2013   | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 13,462 | 12,221 | 10,125 | 8,808 | 7,282 | 7,244 | 7,775 | 6,705 | 7,422 | 5,950 |
| For-Hire     | 197    | 227    | 260    | 238   | 117   | 95    | 224   | 130   | 199   | 71    |
| Private Boat | 4,721  | 4,380  | 3,898  | 3,695 | 3,064 | 3,069 | 3,390 | 2,673 | 2,511 | 2,563 |
| Shore        | 8,544  | 7,614  | 5,967  | 4,875 | 4,102 | 4,080 | 4,161 | 3,903 | 4,713 | 3,315 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3</sup>**

| Species           | Category | 2011  | 2012  | 2013  | 2014  | 2015   | 2016  | 2017   | 2018  | 2019  | 2020  |
|-------------------|----------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|
| Atlantic bonito   | H        | 15    | 12    | 0     | 31    | 12     | 1     | 3      | 24    | 68    | 28    |
|                   | R        | 0     | < 1   | 2     | 42    | 13     | 13    | < 1    | 378   | 24    | 21    |
| Atlantic cod      | H        | 697   | 486   | 544   | 252   | 5      | 56    | 48     | 5     | 5     | 2     |
|                   | R        | 1,006 | 533   | 1,382 | 806   | 317    | 1,145 | 1,728  | 605   | 204   | 355   |
| Atlantic mackerel | H        | 6,911 | 4,165 | 5,114 | 4,334 | 11,514 | 9,199 | 12,295 | 4,983 | 4,412 | 4,826 |
|                   | R        | 261   | 403   | 417   | 524   | 2,385  | 684   | 2,689  | 1,414 | 1,235 | 493   |
| Bluefish          | H        | 684   | 977   | 1,520 | 739   | 693    | 977   | 595    | 182   | 266   | 162   |
|                   | R        | 1,877 | 1,808 | 1,644 | 2,888 | 479    | 1,059 | 528    | 532   | 471   | 744   |
| Haddock           | H        | 123   | 189   | 189   | 153   | 74     | 741   | 1,465  | 504   | 602   | 703   |
|                   | R        | 41    | 215   | 583   | 666   | 213    | 2,487 | 2,048  | 703   | 251   | 302   |
| Scup              | H        | 2,125 | 2,549 | 3,783 | 2,802 | 1,977  | 1,791 | 2,086  | 3,266 | 1,961 | 1,280 |
|                   | R        | 4,506 | 4,527 | 2,854 | 2,302 | 1,906  | 3,004 | 3,419  | 3,223 | 1,985 | 1,498 |
| Striped bass      | H        | 873   | 1,011 | 659   | 524   | 485    | 230   | 392    | 389   | 196   | 67    |
|                   | R        | 4,036 | 3,629 | 4,670 | 6,425 | 4,471  | 6,299 | 12,866 | 5,377 | 5,499 | 5,128 |
| Summer flounder   | H        | 184   | 233   | 80    | 256   | 213    | 106   | 65     | 67    | 55    | 70    |
|                   | R        | 594   | 560   | 144   | 643   | 242    | 267   | 110    | 138   | 224   | 315   |
| Tautog            | H        | 173   | 96    | 240   | 444   | 188    | 74    | 636    | 78    | 169   | 185   |
|                   | R        | 817   | 348   | 1,012 | 2,168 | 670    | 261   | 1,889  | 399   | 1,191 | 2,056 |
| Winter flounder   | H        | 365   | 110   | 115   | 168   | 134    | 71    | 285    | 126   | 55    | 46    |
|                   | R        | 299   | 35    | 40    | 101   | 113    | 230   | 125    | 52    | 28    | 23    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Massachusetts State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 181,061 (2.3%)                      | 3,386,372 (2.5%)               | 239 (3.2%)                           | 341 (3%)                                    | 593                                       | ds                                   |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 36    | 25    | 28    | 33    | 38    | 38    | 40    | 51    | NA   |
|   | Receipts  | 2,433 | 1,699 | 1,857 | 2,356 | 4,474 | 3,800 | 4,462 | 4,757 | NA   |
| Seafood sales, retail                     | Firms     | 66    | 65    | 51    | 56    | 52    | 46    | 53    | 65    | NA   |
|   | Receipts  | 7,640 | 5,213 | 3,842 | 5,782 | 5,154 | 4,566 | 5,153 | 5,147 | NA   |

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

| Sector                                    | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    |
|---|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Seafood product preparation and packaging | Establishments | 44      | 39      | 40      | 42      | 41      | 37      | 36      | 34      | 35      |
|   | Employees      | 2,214   | 1,638   | 1,755   | 1,819   | 1,948   | 1,967   | 2,153   | 2,227   | 2,204   |
|   | Payroll        | 112,399 | 74,541  | 87,153  | 99,445  | 108,090 | 108,850 | 134,273 | 131,856 | 136,718 |
| Seafood Sales, Wholesale                  | Establishments | 141     | 140     | 142     | 130     | 129     | 128     | 133     | 129     | 125     |
|   | Employees      | 2,013   | 1,841   | 1,910   | 1,859   | 1,808   | 1,865   | 1,753   | 1,890   | 1,962   |
|   | Payroll        | 94,105  | 100,801 | 104,637 | 101,512 | 102,009 | 107,494 | 108,426 | 112,782 | 124,425 |
| Seafood sales, retail                     | Establishments | 106     | 114     | 114     | 114     | 106     | 107     | 101     | 99      | 100     |
|   | Employees      | 576     | 576     | 708     | 647     | 641     | 690     | 657     | 632     | 636     |
|   | Payroll        | 16,037  | 15,776  | 18,304  | 19,516  | 20,201  | 21,909  | 21,734  | 22,756  | 23,289  |

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

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|--|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ship and Boat Building                         | Establishments | 37     | 40     | 41     | 43     | 39     | 38     | 34     | 37     | 40     |
|  | Employees      | 445    | 446    | 463    | 623    | 576    | 525    | 495    | 680    | 635    |
|  | Payroll        | 22,066 | 23,195 | 23,615 | 31,451 | 31,153 | 30,808 | 28,965 | 38,046 | 39,362 |
| Deep Sea Freight Transportation                | Establishments | 7      | 9      | 8      | 9      | 8      | 8      | 8      | 7      | 7      |
|  | Employees      | 381    | ds     | ds     | ds     | ds     | ds     | ds     | 57     | 68     |
|  | Payroll        | 38,797 | ds     | ds     | ds     | ds     | ds     | ds     | 5,493  | 6,126  |
| Coastal and Great Lakes Freight Transportation | Establishments | 10     | 14     | 8      | 12     | 12     | 10     | 7      | 5      | 6      |
|  | Employees      | ds     | ds     | 22     | 25     | 36     | 34     | 35     | 33     | 74     |
|  | Payroll        | ds     | 3,266  | 1,352  | 1,478  | 2,766  | 3,026  | 2,542  | 4,020  | 4,923  |
| Port and Harbor Operations                     | Establishments | 6      | 5      | 3      | 1      | 1      | 1      | NA     | NA     | 3      |
|  | Employees      | 95     | 35     | ds     | ds     | ds     | ds     | NA     | NA     | 49     |
|  | Payroll        | 3,035  | 1,519  | ds     | ds     | ds     | ds     | NA     | NA     | 5,679  |
| Marine Cargo Handling                          | Establishments | 2      | 4      | 3      | 3      | 2      | 2      | NA     | NA     | NA     |
|  | Employees      | ds     | ds     | ds     | ds     | ds     | ds     | NA     | NA     | NA     |
|  | Payroll        | ds     | ds     | ds     | ds     | ds     | ds     | NA     | NA     | NA     |
| Navigational Services to Shipping              | Establishments | 9      | 8      | 11     | 9      | 8      | 10     | 16     | 16     | 17     |
|  | Employees      | 139    | 120    | 94     | 83     | 88     | 106    | 156    | 162    | 174    |
|  | Payroll        | 6,980  | 5,965  | 6,578  | 6,645  | 7,311  | 8,984  | 10,898 | 14,837 | 14,378 |
| Marinas  | Establishments | 176    | 172    | 178    | 177    | 178    | 175    | 176    | 173    | 176    |
|  | Employees      | 1,125  | 977    | 1,054  | 1,161  | 1,076  | 1,143  | 1,230  | 1,215  | 1,275  |
|  | Payroll        | 58,251 | 48,657 | 55,053 | 57,797 | 63,422 | 67,077 | 68,756 | 67,405 | 70,980 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | New Hampshire





2020 Economic Impacts of the New Hampshire Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |         |         |             | Without Imports |         |        |             |
|--------------------------------------|--------------|---------|---------|-------------|-----------------|---------|--------|-------------|
|                                      | Jobs         | Sales   | Income  | Value Added | Jobs            | Sales   | Income | Value Added |
| Total Impacts                        | 4,929        | 700,257 | 168,569 | 266,074     | 2,033           | 137,133 | 50,326 | 69,008      |
| Commercial Harvesters                | 741          | 51,977  | 14,690  | 22,814      | 741             | 51,977  | 14,690 | 22,814      |
| Seafood Processors and Dealers       | 341          | 44,259  | 17,391  | 22,425      | 170             | 22,036  | 8,659  | 11,165      |
| Importers                            | 1,361        | 450,525 | 72,205  | 137,340     | NA              | NA      | NA     | NA          |
| Seafood Wholesalers and Distributors | 276          | 42,047  | 14,822  | 19,505      | 66              | 10,060  | 3,546  | 4,667       |
| Retail                               | 2,211        | 111,449 | 49,460  | 63,991      | 1,057           | 53,060  | 23,431 | 30,363      |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 23,482 | 23,236 | 20,188 | 24,288 | 27,794 | 33,480 | 35,691 | 39,121 | 39,550 | 29,635 |
| Finfish             | 6,119  | 5,541  | 2,851  | 1,855  | 2,514  | 2,484  | 3,123  | 3,040  | 2,812  | 1,574  |
| Shellfish and Other | 17,363 | 17,695 | 17,337 | 22,433 | 25,280 | 30,996 | 32,567 | 36,080 | 36,738 | 28,062 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| American lobster    | 16,343 | 17,169 | 16,602 | 20,751 | 24,544 | 30,373 | 32,365 | 35,673 | 36,021 | 26,553 |
| Atlantic cod        | 2,500  | 1,750  | 546    | 571    | 93     | 109    | 150    | 209    | 244    | 181    |
| Atlantic herring    | 208    | 349    | 232    | NA     | 586    | NA     | 827    | 436    | NA     | NA     |
| Flounder            | 102    | 217    | 106    | NA     | 156    | 191    | 269    | 198    | 124    | 81     |
| Goosefish           | 207    | 153    | 186    | NA     | 351    | 338    | 422    | 355    | 312    | 183    |
| Haddock             | 35     | 91     | 20     | 18     | 8      | 14     | 22     | 107    | 133    | 287    |
| Hake                | 445    | 475    | 373    | NA     | 261    | 270    | 186    | 278    | 288    | 59     |
| Pollock             | 1,355  | 1,224  | 1,133  | 860    | 356    | 207    | 189    | 284    | 269    | 282    |
| Sea scallop         | 26     | 143    | 296    | 345    | 398    | 284    | 66     | 155    | 385    | 73     |
| Spiny dogfish       | 451    | 419    | 94     | NA     | NA     | NA     | 178    | NA     | NA     | NA     |

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

| Category            | 2011   | 2012   | 2013  | 2014  | 2015   | 2016  | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|-------|-------|--------|-------|--------|--------|--------|--------|
| Total               | 12,311 | 12,145 | 8,247 | 9,117 | 11,093 | 7,937 | 10,799 | 10,119 | 13,225 | 11,340 |
| Finfish             | 7,108  | 7,487  | 3,961 | 1,203 | 5,168  | 1,081 | 4,982  | 2,995  | 5,993  | 1,166  |
| Shellfish and Other | 5,203  | 4,659  | 4,285 | 7,913 | 5,926  | 6,856 | 5,817  | 7,124  | 7,232  | 10,174 |
| Key Species         | -      | -      | -     | -     | -      | -     | -      | -      | -      | -      |
| American lobster    | 3,919  | 4,229  | 3,818 | 4,375 | 4,722  | 5,782 | 5,645  | 6,199  | 6,094  | 5,014  |
| Atlantic cod        | 1,286  | 725    | 230   | 263   | 45     | 55    | 71     | 89     | 98     | 67     |
| Atlantic herring    | 1,514  | 2,391  | 1,579 | NA    | 3,999  | NA    | 2,829  | 1,511  | NA     | NA     |
| Flounder            | 70     | 133    | 61    | NA    | 97     | 86    | 119    | 98     | 61     | 58     |
| Goosefish           | 153    | 126    | 162   | NA    | 314    | 331   | 549    | 540    | 577    | 347    |
| Haddock             | 19     | 43     | 9     | 10    | 6      | 9     | 18     | 80     | 107    | 265    |
| Hake                | 587    | 1,136  | 393   | NA    | 309    | 330   | 267    | 288    | 307    | 72     |
| Pollock             | 1,732  | 1,049  | 982   | 629   | 270    | 98    | 108    | 186    | 175    | 226    |
| Sea scallop         | 3      | 12     | 25    | 27    | 31     | 24    | 5      | 12     | 36     | 6      |
| Spiny dogfish       | 1,643  | 1,788  | 508   | NA    | NA     | NA    | 858    | NA     | NA     | NA     |

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

| Species          | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| American lobster | 4.17  | 4.06  | 4.35  | 4.74  | 5.20  | 5.25  | 5.73  | 5.75  | 5.91  | 5.30  |
| Atlantic cod     | 1.94  | 2.41  | 2.38  | 2.17  | 2.09  | 1.97  | 2.11  | 2.36  | 2.48  | 2.69  |
| Atlantic herring | 0.14  | 0.15  | 0.15  | NA    | 0.15  | NA    | 0.29  | 0.29  | NA    | NA    |
| Flounder         | 1.46  | 1.63  | 1.74  | NA    | 1.61  | 2.21  | 2.27  | 2.01  | 2.04  | 1.40  |
| Goosefish        | 1.36  | 1.21  | 1.15  | NA    | 1.12  | 1.02  | 0.77  | 0.66  | 0.54  | 0.53  |
| Haddock          | 1.91  | 2.14  | 2.28  | 1.74  | 1.41  | 1.55  | 1.26  | 1.34  | 1.24  | 1.08  |
| Hake             | 0.76  | 0.42  | 0.95  | NA    | 0.85  | 0.82  | 0.70  | 0.96  | 0.94  | 0.82  |
| Pollock          | 0.78  | 1.17  | 1.15  | 1.37  | 1.32  | 2.12  | 1.74  | 1.53  | 1.54  | 1.25  |
| Sea scallop      | 10.35 | 11.68 | 11.93 | 12.68 | 12.83 | 12.02 | 13.19 | 13.19 | 10.77 | 11.38 |
| Spiny dogfish    | 0.27  | 0.23  | 0.19  | NA    | NA    | NA    | 0.21  | NA    | NA    | NA    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

2020 Economic Impacts of New Hampshire Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>

| Fishing Mode                 | Jobs | Sales  | Income | Value Added |
|------------------------------|------|--------|--------|-------------|
| For-Hire                     | 88   | 8,785  | 3,360  | 5,312       |
| Private Boat                 | 64   | 7,028  | 3,215  | 4,690       |
| Shore                        | 217  | 22,679 | 9,050  | 15,692      |
| Total Durable Expenditures   | NA   | NA     | NA     | NA          |
| Total State Economic Impacts | 370  | 38,492 | 15,625 | 25,694      |

2020 Angler Trip Expenditures (thousands of dollars)

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 32,336     | 5,769    | 8,956        | 17,612 |

Recreational Anglers by Residential Area (thousands of anglers)

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 96   | 121  | 153  | 120  | 115  | 134  | 48   | 88   | NA   | NA   |
| Coastal       | 56   | 58   | 68   | 50   | 54   | 69   | 24   | 39   | NA   | NA   |
| Non-Coastal   | 10   | 9    | 19   | 11   | 6    | 8    | 4    | 8    | NA   | NA   |
| Out-of-State  | 30   | 54   | 66   | 58   | 54   | 57   | 19   | 41   | NA   | NA   |

Recreational Fishing Effort by Mode (thousands of angler trips)

| Category     | 2011 | 2012 | 2013 | 2014 | 2015 | 2016  | 2017 | 2018 | 2019 | 2020 |
|--------------|------|------|------|------|------|-------|------|------|------|------|
| Total Trips  | 810  | 858  | 906  | 954  | 981  | 1,061 | 972  | 676  | 609  | 920  |
| For-Hire     | 76   | 55   | 114  | 110  | 82   | 38    | 51   | 38   | 48   | 45   |
| Private Boat | 341  | 375  | 404  | 395  | 407  | 438   | 430  | 299  | 301  | 297  |
| Shore        | 393  | 427  | 389  | 449  | 492  | 585   | 492  | 339  | 260  | 578  |

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3,4</sup>

| Species           | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic cod      | H        | 165   | 97    | 188   | 66    | 3     | 12    | 32    | < 1   | 3     | 3     |
|                   | R        | 333   | 248   | 259   | 209   | 499   | 423   | 370   | 482   | 202   | 130   |
| Atlantic mackerel | H        | 3,227 | 2,360 | 2,537 | 1,768 | 880   | 2,431 | 3,031 | 1,753 | 1,474 | 1,406 |
|                   | R        | 391   | 312   | 51    | 125   | 315   | 362   | 232   | 208   | 163   | 119   |
| Bluefin tuna      | H        | 0     | < 1   | NA    | NA    | NA    | NA    | NA    | < 1   | 3     | < 1   |
|                   | R        | 3     | 0     | NA    | NA    | NA    | NA    | NA    | 0     | 0     | 0     |
| Bluefish          | H        | 1     | 33    | 0     | 2     | 8     | < 1   | NA    | NA    | NA    | < 1   |
|                   | R        | 3     | 16    | < 1   | 9     | 0     | 0     | NA    | NA    | NA    | 0     |
| Haddock           | H        | 94    | 101   | 107   | 104   | 153   | 195   | 165   | 263   | 212   | 202   |
|                   | R        | 25    | 177   | 404   | 582   | 1,062 | 553   | 441   | 314   | 265   | 337   |
| Other flounders   | H        | 0     | 1     | 0     | 0     | NA    | 0     | 0     | 0     | 0     | 0     |
|                   | R        | 3     | 2     | 10    | < 1   | NA    | 3     | 5     | < 1   | 1     | 3     |
| Pollock           | H        | 186   | 119   | 228   | 268   | 149   | 213   | 258   | 87    | 70    | 56    |
|                   | R        | 243   | 282   | 469   | 459   | 1,273 | 294   | 321   | 147   | 157   | 190   |
| Striped bass      | H        | 54    | 37    | 63    | 17    | 10    | 18    | 38    | 13    | 15    | 3     |
|                   | R        | 191   | 164   | 295   | 316   | 262   | 819   | 1,418 | 356   | 435   | 897   |
| Winter flounder   | H        | 21    | < 1   | 0     | 8     | 15    | 8     | 11    | 17    | 6     | 9     |
|                   | R        | 4     | 5     | 3     | 13    | 18    | 12    | 8     | 9     | 6     | 5     |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

<sup>4</sup> Other flounders include flatfish order and unidentified flounder or sole.

2019 New Hampshire State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 38,494 (0.5%)                       | 620,164 (0.5%)                 | 33.0 (0.4%)                          | 49.1 (0.4%)                                 | 87.5                                      | ds                                   |

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)<sup>1</sup>

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 7     | 7     | 6     | 6     | 4     | 4     | 5     | 6     | NA   |
|   | Receipts  | 856   | 1,166 | 1,239 | 1,019 | 1,411 | 1,435 | 1,416 | 1,128 | NA   |
| Seafood sales, retail                     | Firms     | 11    | 12    | 15    | 15    | 9     | 8     | 9     | 9     | NA   |
|   | Receipts  | 2,152 | 2,096 | 1,861 | 2,419 | 1,722 | 899   | 1,134 | 1,200 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014  | 2015   | 2016  | 2017  | 2018   | 2019   |
|---|----------------|--------|--------|--------|-------|--------|-------|-------|--------|--------|
| Seafood product preparation and packaging | Establishments | 8      | 8      | 7      | 6     | 8      | 6     | 5     | 5      | 4      |
|   | Employees      | 231    | 229    | 225    | ds    | 182    | ds    | ds    | 221    | 202    |
|   | Payroll        | 12,010 | 12,181 | 13,751 | ds    | 11,160 | ds    | ds    | 13,941 | 12,023 |
| Seafood Sales, Wholesale                  | Establishments | 7      | 8      | 9      | 8     | 9      | 9     | 9     | 10     | 10     |
|   | Employees      | 84     | 99     | 113    | 106   | 108    | 95    | 100   | 102    | 99     |
| Seafood sales, retail                     | Payroll        | 4,123  | 5,738  | 4,562  | 4,271 | 4,543  | 5,480 | 5,863 | 6,105  | 6,132  |
|   | Establishments | 16     | 9      | 9      | 9     | 9      | 9     | 7     | 6      | 6      |
|   | Employees      | 88     | 48     | 45     | ds    | 57     | 58    | 138   | 44     | 42     |
|   | Payroll        | 1,934  | 870    | 966    | 1,699 | 1,659  | 1,397 | 2,900 | 1,163  | 1,262  |

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

| Sector   | Statistic      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016   | 2017   | 2018   | 2019   |
|--|----------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Ship and Boat Building                         | Establishments | 7     | 7     | 7     | 8     | 6     | 7      | 6      | 6      | 7      |
|  | Employees      | ds    | ds    | ds    | ds    | 181   | 190    | 174    | 217    | 198    |
|  | Payroll        | ds    | ds    | ds    | ds    | 9,800 | 9,413  | 11,357 | 12,563 | 12,115 |
| Deep Sea Freight Transportation                | Establishments | 1     | 1     | 1     | 1     | NA    | NA     | NA     | NA     | NA     |
|  | Employees      | ds    | ds    | ds    | ds    | NA    | NA     | NA     | NA     | NA     |
|  | Payroll        | ds    | ds    | ds    | ds    | NA    | NA     | NA     | NA     | NA     |
| Coastal and Great Lakes Freight Transportation | Establishments | NA    | 1     | NA    | NA    | NA    | NA     | NA     | NA     | NA     |
|  | Employees      | NA    | ds    | NA    | NA    | NA    | NA     | NA     | NA     | NA     |
|  | Payroll        | NA    | ds    | NA    | NA    | NA    | NA     | NA     | NA     | NA     |
| Port and Harbor Operations                     | Establishments | NA    | 2     | 2     | 1     | 1     | 1      | NA     | NA     | NA     |
|  | Employees      | NA    | ds    | ds    | ds    | ds    | ds     | NA     | NA     | NA     |
|  | Payroll        | NA    | ds    | ds    | ds    | ds    | ds     | NA     | NA     | NA     |
| Navigational Services to Shipping              | Establishments | 2     | 3     | 3     | 3     | 3     | 2      | 3      | 3      | 3      |
|  | Employees      | ds    | ds    | ds    | ds    | 18    | ds     | ds     | 17     | 17     |
|  | Payroll        | ds    | ds    | ds    | ds    | 1,920 | ds     | ds     | 1,973  | 1,804  |
| Marinas  | Establishments | 34    | 31    | 35    | 35    | 35    | 35     | 31     | 31     | 33     |
|  | Employees      | 139   | 131   | 155   | 144   | 153   | 162    | 145    | 169    | 180    |
|  | Payroll        | 7,090 | 6,927 | 8,031 | 8,043 | 8,788 | 10,070 | 9,282  | 10,483 | 12,680 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | Rhode Island



2020 Economic Impacts of the Rhode Island Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |         |         |             | Without Imports |         |        |             |
|--------------------------------------|--------------|---------|---------|-------------|-----------------|---------|--------|-------------|
|                                      | Jobs         | Sales   | Income  | Value Added | Jobs            | Sales   | Income | Value Added |
| Total Impacts                        | 5,586        | 621,476 | 168,298 | 256,873     | 3,923           | 270,412 | 97,598 | 136,932     |
| Commercial Harvesters                | 1,826        | 135,400 | 41,255  | 64,070      | 1,826           | 135,400 | 41,255 | 64,070      |
| Seafood Processors and Dealers       | 288          | 36,018  | 13,957  | 18,137      | 254             | 31,828  | 12,334 | 16,027      |
| Importers                            | 881          | 291,678 | 46,747  | 88,916      | NA              | NA      | NA     | NA          |
| Seafood Wholesalers and Distributors | 277          | 39,837  | 14,115  | 18,573      | 103             | 14,830  | 5,255  | 6,914       |
| Retail                               | 2,314        | 118,544 | 52,224  | 67,177      | 1,740           | 88,354  | 38,755 | 49,920      |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017    | 2018    | 2019    | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
| Total               | 75,930 | 81,136 | 86,063 | 86,419 | 82,077 | 94,899 | 101,962 | 105,122 | 109,306 | 78,403 |
| Finfish             | 23,116 | 26,823 | 27,020 | 25,834 | 21,716 | 20,841 | 18,440  | 18,672  | 19,596  | 16,422 |
| Shellfish and Other | 52,814 | 54,312 | 59,043 | 60,586 | 60,361 | 74,057 | 83,523  | 86,450  | 89,709  | 61,981 |
| Key Species         | -      | -      | -      | -      | -      | -      | -       | -       | -       | -      |
| American lobster    | 12,765 | 12,119 | 9,732  | 11,709 | 12,368 | 11,889 | 11,016  | 10,957  | 11,036  | 9,536  |
| Atlantic herring    | 1,343  | 2,174  | 4,907  | 2,303  | 1,373  | 1,525  | 939     | 572     | 427     | 103    |
| Atlantic mackerel   | 100    | 2,804  | 339    | 309    | 1,074  | 448    | 286     | 1,287   | 389     | 1,101  |
| Goosefish           | 4,600  | 3,844  | 2,725  | 2,996  | 2,730  | 2,486  | 2,062   | 2,330   | 2,512   | 1,217  |
| Other flounders     | 805    | 1,025  | 2,125  | 2,948  | 1,774  | 1,465  | 1,546   | 626     | 375     | 205    |
| Quahog clam         | 3,919  | 5,169  | 4,727  | 5,099  | 5,453  | 5,612  | 5,011   | 4,798   | 5,364   | 3,392  |
| Scups and porgies   | 3,312  | 3,904  | 3,666  | 4,118  | 4,278  | 4,053  | 3,078   | 2,740   | 2,571   | 2,414  |
| Sea scallop         | 6,834  | 9,191  | 18,639 | 10,273 | 8,079  | 10,242 | 22,785  | 22,050  | 24,517  | 11,339 |
| Squid               | 20,381 | 12,744 | 13,207 | 17,718 | 20,288 | 33,938 | 28,333  | 32,571  | 31,073  | 24,844 |
| Summer flounder     | 6,408  | 6,937  | 6,751  | 7,298  | 6,107  | 5,480  | 4,299   | 4,710   | 5,617   | 4,704  |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 78,749 | 85,234 | 89,850 | 91,780 | 75,728 | 82,689 | 83,797 | 81,102 | 78,801 | 73,495 |
| Finfish             | 32,545 | 41,801 | 52,130 | 38,739 | 30,864 | 28,587 | 23,792 | 22,640 | 20,117 | 18,258 |
| Shellfish and Other | 46,204 | 43,433 | 37,719 | 53,041 | 44,865 | 54,102 | 60,005 | 58,462 | 58,684 | 55,237 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| American lobster    | 2,754  | 2,706  | 2,156  | 2,413  | 2,316  | 2,260  | 2,031  | 1,906  | 1,795  | 1,695  |
| Atlantic herring    | 8,729  | 13,839 | 28,330 | 16,505 | 10,431 | 9,539  | 4,535  | 2,159  | 1,180  | 450    |
| Atlantic mackerel   | 162    | 5,497  | 714    | 539    | 1,906  | 1,143  | 695    | 3,994  | 1,295  | 2,583  |
| Goosefish           | 3,242  | 2,873  | 2,818  | 2,898  | 2,529  | 2,202  | 2,061  | 3,059  | 3,159  | 2,073  |
| Other flounders     | 614    | 663    | 1,367  | 2,158  | 1,057  | 766    | 938    | 215    | 122    | 101    |
| Quahog clam         | 666    | 903    | 784    | 764    | 684    | 660    | 546    | 512    | 518    | 342    |
| Scups and porgies   | 6,336  | 6,311  | 7,346  | 6,949  | 6,794  | 6,809  | 5,973  | 4,714  | 4,584  | 4,291  |
| Sea scallop         | 690    | 944    | 1,646  | 841    | 677    | 897    | 2,310  | 2,482  | 2,714  | 1,273  |
| Squid               | 25,997 | 11,689 | 12,609 | 24,938 | 20,495 | 32,914 | 33,776 | 34,871 | 32,012 | 33,465 |
| Summer flounder     | 2,824  | 2,409  | 2,193  | 2,056  | 1,716  | 1,306  | 896    | 1,023  | 1,661  | 1,702  |

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

| Species           | 2011 | 2012 | 2013  | 2014  | 2015  | 2016  | 2017 | 2018 | 2019  | 2020 |
|-------------------|------|------|-------|-------|-------|-------|------|------|-------|------|
| American lobster  | 4.64 | 4.48 | 4.51  | 4.85  | 5.34  | 5.26  | 5.42 | 5.75 | 6.15  | 5.62 |
| Atlantic herring  | 0.15 | 0.16 | 0.17  | 0.14  | 0.13  | 0.16  | 0.21 | 0.26 | 0.36  | 0.23 |
| Atlantic mackerel | 0.62 | 0.51 | 0.47  | 0.57  | 0.56  | 0.39  | 0.41 | 0.32 | 0.30  | 0.43 |
| Goosefish         | 1.42 | 1.34 | 0.97  | 1.03  | 1.08  | 1.13  | 1.00 | 0.76 | 0.80  | 0.59 |
| Other flounders   | 1.31 | 1.55 | 1.55  | 1.37  | 1.68  | 1.91  | 1.65 | 2.91 | 3.08  | 2.02 |
| Quahog clam       | 5.89 | 5.72 | 6.03  | 6.67  | 7.98  | 8.51  | 9.17 | 9.37 | 10.35 | 9.92 |
| Scups and porgies | 0.52 | 0.62 | 0.50  | 0.59  | 0.63  | 0.60  | 0.52 | 0.58 | 0.56  | 0.56 |
| Sea scallop       | 9.90 | 9.73 | 11.32 | 12.21 | 11.94 | 11.42 | 9.86 | 8.88 | 9.03  | 8.91 |
| Squid             | 0.78 | 1.09 | 1.05  | 0.71  | 0.99  | 1.03  | 0.84 | 0.93 | 0.97  | 0.74 |
| Summer flounder   | 2.27 | 2.88 | 3.08  | 3.55  | 3.56  | 4.20  | 4.80 | 4.61 | 3.38  | 2.76 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Rhode Island Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs | Sales  | Income | Value Added |
|------------------------------|------|--------|--------|-------------|
| For-Hire                     | 91   | 9,032  | 3,562  | 5,439       |
| Private Boat                 | 245  | 27,362 | 14,473 | 20,256      |
| Shore                        | 370  | 40,093 | 19,580 | 29,163      |
| Total Durable Expenditures   | NA   | NA     | NA     | NA          |
| Total State Economic Impacts | 706  | 76,487 | 37,615 | 54,858      |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 66,215     | 5,568    | 28,762       | 31,885 |

**Recreational Anglers by Residential Area (thousands of anglers)<sup>2</sup>**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 296  | 268  | 383  | 464  | 298  | 392  | 326  | 342  | NA   | NA   |
| Coastal       | 105  | 99   | 129  | 160  | 123  | 149  | 132  | 109  | NA   | NA   |
| Non-Coastal   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |
| Out-of-State  | 190  | 169  | 255  | 304  | 175  | 243  | 194  | 233  | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 3,750 | 3,957 | 3,316 | 3,351 | 3,134 | 2,999 | 2,318 | 2,553 | 3,739 | 2,848 |
| For-Hire     | 39    | 41    | 47    | 52    | 50    | 49    | 35    | 43    | 34    | 40    |
| Private Boat | 1,247 | 1,028 | 1,109 | 1,058 | 1,310 | 825   | 774   | 974   | 1,384 | 1,036 |
| Shore        | 2,464 | 2,888 | 2,159 | 2,241 | 1,774 | 2,124 | 1,508 | 1,536 | 2,321 | 1,772 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>3,4</sup>**

| Species         | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-----------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic bonito | H        | NA    | < 1   | 9     | 1     | 1     | 0     | 10    | 11    | 33    | 11    |
|                 | R        | NA    | 0     | 11    | 9     | 5     | 23    | < 1   | 26    | 35    | 7     |
| Atlantic cod    | H        | 7     | 57    | < 1   | 19    | 49    | 77    | 5     | 9     | 12    | 10    |
|                 | R        | 36    | 3     | < 1   | 7     | 33    | 59    | < 1   | 3     | 5     | 9     |
| Black seabass   | H        | 102   | 226   | 166   | 404   | 434   | 508   | 328   | 706   | 517   | 616   |
|                 | R        | 489   | 2,145 | 1,623 | 1,981 | 1,405 | 2,319 | 1,867 | 2,671 | 3,436 | 3,074 |
| Bluefish        | H        | 414   | 2,312 | 658   | 463   | 90    | 145   | 419   | 120   | 380   | 221   |
|                 | R        | 1,185 | 1,356 | 2,000 | 257   | 1,412 | 587   | 116   | 152   | 612   | 869   |
| Scup            | H        | 1,196 | 1,032 | 2,508 | 2,664 | 1,219 | 1,551 | 1,383 | 2,377 | 3,272 | 1,588 |
|                 | R        | 1,486 | 1,670 | 1,669 | 1,451 | 1,604 | 2,961 | 1,863 | 1,796 | 2,294 | 1,297 |
| Striped bass    | H        | 202   | 131   | 308   | 172   | 67    | 128   | 60    | 39    | 104   | 37    |
|                 | R        | 621   | 1,292 | 2,574 | 438   | 1,653 | 1,416 | 1,543 | 2,180 | 2,132 | 1,285 |
| Summer flounder | H        | 380   | 224   | 235   | 340   | 222   | 113   | 156   | 169   | 214   | 120   |
|                 | R        | 1,772 | 928   | 938   | 910   | 630   | 476   | 784   | 791   | 1,319 | 810   |
| Tautog          | H        | 79    | 341   | 540   | 239   | 296   | 344   | 141   | 330   | 369   | 229   |
|                 | R        | 480   | 846   | 793   | 422   | 1,113 | 1,052 | 545   | 2,006 | 1,243 | 1,217 |
| Winter flounder | H        | 0     | 0     | NA    | < 1   | < 1   | 2     | 8     | < 1   | < 1   | < 1   |
|                 | R        | < 1   | 3     | NA    | 1     | 0     | < 1   | < 1   | 0     | 0     | 0     |
| Yellowfin tuna  | H        | NA    | NA    | 13    | 1     | 8     | < 1   | NA    | NA    | < 1   | NA    |
|                 | R        | NA    | NA    | 0     | 0     | 11    | 0     | NA    | NA    | < 1   | NA    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> Non-coastal data are not available because all of the state's residents are considered coastal county residents.<sup>3</sup> 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.<sup>4</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Rhode Island's State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 28,801 (0.4%)                       | 444,948 (0.3%)                 | 22.7 (0.3%)                          | 35.5 (0.3%)                                 | 61.3                                      | ds                                   |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 9     | 10    | 8     | 8     | 6     | 6     | ds    | 8     | NA   |
|   | Receipts  | 1,168 | 1,441 | 1,393 | 1,418 | 1,381 | 1,374 | ds    | 154   | NA   |
| Seafood sales, retail                     | Firms     | 25    | 20    | 22    | 16    | 15    | 14    | 16    | 12    | NA   |
|   | Receipts  | 3,033 | 2,536 | 2,501 | 1,331 | 1,259 | 1,569 | 1,059 | 1,243 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  |
|---|----------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Seafood product preparation and packaging | Establishments | 4      | 3      | 3     | 3     | 3     | 2     | NA    | NA    | NA    |
|   | Employees      | 178    | ds     | ds    | ds    | 71    | ds    | NA    | NA    | NA    |
|   | Payroll        | 5,544  | ds     | ds    | ds    | 2,243 | ds    | NA    | NA    | NA    |
| Seafood Sales, Wholesale                  | Establishments | 34     | 32     | 31    | 28    | 28    | 26    | 22    | 23    | 22    |
|   | Employees      | 230    | 278    | 182   | 188   | 182   | 164   | 130   | 131   | 136   |
| Seafood sales, retail                     | Payroll        | 10,264 | 13,064 | 8,412 | 8,763 | 8,140 | 8,567 | 7,308 | 7,261 | 7,429 |
|   | Establishments | 23     | 24     | 24    | 27    | 26    | 24    | 24    | 22    | 21    |
|   | Employees      | 109    | 111    | 113   | 114   | 113   | 100   | 106   | 112   | 103   |
| Payroll                                   | 2,232          | 2,388  | 2,610  | 2,608 | 2,925 | 2,932 | 2,971 | 3,052 | 2,885 |       |

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

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|--|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ship and Boat Building                         | Establishments | 30     | 37     | 33     | 33     | 33     | 30     | 27     | 26     | 25     |
|  | Employees      | 916    | 717    | 768    | 939    | 902    | 757    | 565    | 535    | 452    |
|  | Payroll        | 33,316 | 32,070 | 34,483 | 42,200 | 41,096 | 34,132 | 28,098 | 27,363 | 21,016 |
| Deep Sea Freight Transportation                | Establishments | 2      | 2      | 1      | 1      | 2      | 2      | NA     | NA     | NA     |
|  | Employees      | ds     | ds     | ds     | ds     | ds     | ds     | NA     | NA     | NA     |
|  | Payroll        | ds     | ds     | ds     | ds     | ds     | ds     | NA     | NA     | NA     |
| Deep Sea Passenger Transportation              | Establishments | 1      | 1      | 2      | 3      | 3      | 2      | NA     | NA     | NA     |
|  | Employees      | ds     | ds     | ds     | ds     | 18     | ds     | NA     | NA     | NA     |
|  | Payroll        | ds     | ds     | ds     | ds     | 1,574  | ds     | NA     | NA     | NA     |
| Coastal and Great Lakes Freight Transportation | Establishments | 2      | 1      | 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     |
| Port and Harbor Operations                     | Establishments | 1      | 5      | 2      | 3      | 3      | 3      | 3      | 3      | 3      |
|  | Employees      | ds     | ds     | ds     | ds     | 18     | 14     | 19     | 20     | 17     |
|  | Payroll        | ds     | ds     | ds     | ds     | 951    | 813    | 1,040  | 1,025  | 1,003  |
| Marine Cargo Handling                          | Establishments | 5      | 4      | 4      | 3      | 2      | 3      | 3      | 3      | 3      |
|  | Employees      | ds     | ds     | ds     | ds     | ds     | 244    | ds     | 97     | 89     |
|  | Payroll        | ds     | ds     | ds     | ds     | ds     | 6,495  | ds     | 5,795  | 6,322  |
| Navigational Services to Shipping              | Establishments | 8      | 7      | 7      | 6      | 6      | 6      | 7      | 6      | 6      |
|  | Employees      | 107    | ds     | ds     | ds     | 69     | 81     | 83     | 72     | 55     |
|  | Payroll        | 4,002  | 3,272  | ds     | ds     | 4,209  | 3,771  | 4,578  | 4,502  | 4,980  |
| Marinas  | Establishments | 71     | 67     | 71     | 65     | 72     | 71     | 63     | 74     | 73     |
|  | Employees      | 460    | 424    | 466    | 449    | 409    | 435    | 375    | 433    | 478    |
|  | Payroll        | 22,618 | 20,811 | 24,214 | 24,876 | 25,206 | 26,264 | 20,323 | 26,166 | 26,994 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Mid-Atlantic Region

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



Fisherman with catch in Virginia Beach, Virginia.  
Photo: Captain Albert E. Theberge, NOAA Corps (ret.).



## 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 2020. Atlantic mackerel (Gulf of Maine/Cape Hatteras stock) was also determined to be experiencing overfishing; no other stock managed by the MAFMC was determined to be experiencing overfishing in 2020.

### 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 \$54.4 million in 2019.

**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 2019 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 2019 key performance indicators of the ocean 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 2019 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 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.

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.<sup>1</sup>

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 2020, the commercial fishing and seafood industry in New Jersey generated the largest employment impacts in the Mid-Atlantic region with 53,313 full- and part-time jobs. New Jersey also generated the largest sales impacts (\$11.2 billion), value-added impacts (\$3.9 billion), and income impacts (\$2.3 billion).

**Landings Revenue**

In 2020, landings revenue in the Mid-Atlantic Region totaled \$512.6 million, an 8% decrease from 2011 (a 20% decrease in real terms after adjusting for inflation) and a 3% increase from 2019. Landings revenue was highest in Virginia (\$214.4 million), followed by New Jersey (\$185.3 million).

Shellfish and other landings revenue accounted for 72% of all landings revenue. In 2020, sea scallop (\$137.7 million), blue crab (\$87.5 million), and menhaden (\$86.4 million) had the highest landings revenue in this region. Together, these top three species accounted for 61% of total landings revenue.

From 2011 to 2020, eastern oyster (296%, 242% in real terms), menhaden (118%, 88% in real terms), and quahog clam (50%, 30% in real terms) had the largest increases, while Atlantic surf clam (-99%, -99% in real terms), American lobster (-49%, -56% in real terms), and sea scallop (-39%, -48% in real terms) had the largest decreases. From 2019 to 2020, menhaden (108%), quahog clam (20%), and sea scallop (2%) had the largest increases, while Atlantic surf clam (-98%), squid (-37%), and summer flounder (-18%) had the largest decreases.

<sup>1</sup> 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](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).]

**Commercial Revenue: Largest Increases**

*From 2011:*

- Eastern oyster (296%, 242% in real terms)
- Menhaden (118%, 88% in real terms)
- Quahog clam (50%, 30% in real terms)

*From 2019:*

- Menhaden (108%)
- Quahog clam (20%)
- Sea scallop (2%)

**Commercial Revenue: Largest Decreases**

*From 2011:*

- Atlantic surf clam (-99%, -99% in real terms)
- American lobster (-49%, -56% in real terms)
- Sea scallop (-39%, -48% in real terms)

*From 2019:*

- Atlantic surf clam (-98%)
- Squid (-37%)
- Summer flounder (-18%)

**Commercial Landings: Largest Increases**

*From 2011:*

- Eastern oyster (112%)
- Quahog clam (46%)

*From 2019:*

- American lobster (6%)
- Quahog clam (3%)
- Summer flounder (0.6%)

**Commercial Landings: Largest Decreases**

*From 2011:*

- Atlantic surf clam (-99%)
- American lobster (-60%)
- Blue crab (-52%)

*From 2019:*

- Atlantic surf clam (-98%)
- Blue crab (-23%)
- Striped bass (-17%)

**Landings**

In 2020, Mid-Atlantic Region commercial fishermen landed over 559.4 million pounds of finfish and shellfish. This represents a 30% decrease from 2011 and a 13% decrease from 2019. Menhaden contributed the highest landings volume in the region, accounting for 67% of total landing weight.

From 2011 to 2020, eastern oyster (112%) and quahog clam (46%) had the largest increases, while Atlantic surf clam (-99%), American lobster (-60%), and blue crab (-52%) had the largest decreases. From 2019 to 2020, American lobster (6%), quahog clam (3%), and summer flounder (0.6%) had the largest increases, while Atlantic surf clam (-98%), blue crab (-23%), and striped bass (-17%) had the largest decreases.

**Prices**

In 2020, eastern oyster (\$12.01 per pound) received the highest ex-vessel price in the region. Landings of menhaden (\$0.23 per pound) had the lowest ex-vessel price. From 2011 to 2020, menhaden (191%, 151% in real terms), eastern oyster (87%, 62% in real terms), and blue crab (77%, 53% in real terms) had the largest increases, while squid (-11%, -23% in real terms) had the largest decreases. From 2019 to 2020, menhaden (133%), quahog clam (17%), and blue crab (15%) had the largest increases, while squid (-29%), summer flounder (-19%), and American lobster (-8%) 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.<sup>2</sup>

<sup>2</sup> Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.

**Key Mid-Atlantic Region Recreational Species<sup>3</sup>**

- 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.<sup>4</sup> 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 2020 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 2020 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the Mid-Atlantic Region were generated in New York (4,872 jobs), followed by New Jersey (4,455 jobs) and Virginia (3,449 jobs). The largest sales impacts were observed in New Jersey (\$724.4 million), followed by New York (\$428.8 million) and Virginia (\$389.7 million). The biggest income impacts were generated in New Jersey (\$296.5 million), followed by New York (\$189.1 million) and Virginia (\$143.2 million). The greatest value-added impacts were in New Jersey (\$469.4 million), followed by New York (\$328.1 million) and Virginia (\$253.7 million).

A large portion of the approximately 1.8 billion in trip expenses came from trips in the private boat (55.2%) and shore (39.5%) sectors.

**Participation**

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

**Fishing Trips**

In 2020, recreational fishermen took 49.1 million fishing trips in the Mid-Atlantic Region. This number represented an 8% decrease from 2011 and a 14% increase from 2019. The largest proportions of trips were taken in the shore mode (62%) and private boat (37%). States with the highest number of recorded trips in the Mid-Atlantic Region were New Jersey (16 million trips) and New York (14.8 million trips).

**Harvest and Release Trends**

Of the Mid-Atlantic Region's key species and species groups, summer flounder (30.6 million fish), spot (29.7 million fish), and black sea bass (24.5 million fish) were most frequently caught by recreational fishermen. The following text box shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2011 to 2020, scup (142%), tautog (56%), and striped bass (55%) had the largest increases, while

<sup>3</sup> 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.

<sup>4</sup> 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.]

winter flounder (-91%), bluefish (-60%), and Atlantic croaker (-38%) had the largest decreases. From 2019 to 2020, Atlantic croaker (47%), winter flounder (45%), and striped bass (7%) had the largest increases, while weakfish (-51%), bluefish (-28%), and tautog (-8%) had the largest decreases.

**Harvest and Release: Largest Increases**

From 2011:

- Scup (142%)
- Tautog (56%)
- Striped bass (55%)

From 2019:

- Atlantic croaker (47%)
- Winter flounder (45%)
- Striped bass (7%)

**Harvest and Release: Largest Decreases**

From 2011:

- Winter flounder (-91%)
- Bluefish (-60%)
- Atlantic croaker (-38%)

From 2019:

- Weakfish (-51%)
- Bluefish (-28%)
- Tautog (-8%)

**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.<sup>5</sup>

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.<sup>6</sup> 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 and Maryland for 2019. New Jersey had the highest CFLQ at 1.32. Virginia had a CFLQ value of 1.03.

In 2019, 1.2 million employer establishments operated throughout the entire Mid-Atlantic Region (including marine and non-marine related establishments). These establishments employed 18.7 million workers and had a total annual payroll of \$1.2 trillion. The combined gross state product of Delaware, Maryland, New Jersey, New York, and Virginia was approximately \$3.5 trillion in 2019.

**Seafood Sales and Processing<sup>7</sup>**

**Seafood Product Preparation and Packaging:** In 2019, the Mid-Atlantic Region had 67 employer firms in the seafood product preparation and packaging sector (a 2% increase from 2011). The greatest number of establishments in this sector was in Virginia (19), followed by Maryland (18) and New Jersey (16).

**Retail Seafood Sales:** In 2019, there were 630 employer firms in the seafood retail sector In the Mid-Atlantic Region (a 5% decrease from 2011). The greatest number of establishments in this sector was in New York (370), followed by New Jersey (111) and Maryland (76).

**Wholesale Seafood Sales:** There were 435 employer firms in the seafood wholesale sector in the Mid-Atlantic Region in 2019 (a 14% decrease from 2011). The greatest number of establishments in this sector was in New York (258), followed by New Jersey (69) and Virginia (52).

**Transportation Support and Marine Operations**

Data for the transportation support and marine operations sectors of the Mid-Atlantic Region's economy were largely

<sup>5</sup> 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/USAGDPDEFSAISMEI>).

<sup>6</sup> U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

<sup>7</sup> This report has provided economic statistics (number of firms and annual receipts) for non-employer firms in the seafood sales and processing sectors in previous volumes. Currently, this information is not available from the Census Bureau for 2019.

suppressed for confidentiality reasons. It is clear, however, that these sectors play an important role in the regional economy. For example, in 2019, the ship and boat building sector in the Mid-Atlantic Region accounted for \$2.3 billion in payroll. The marine cargo handling sector in Delaware, Maryland, New Jersey and New York totaled \$760.4 million in payroll in 2019.



# Tables | Mid-Atlantic Region





2020 Economic Impacts of the Mid-Atlantic Seafood Industry (thousands of dollars; number of jobs)

| State      | Landings Revenue | With Imports |            |           |             | Without Imports |         |         |             |
|------------|------------------|--------------|------------|-----------|-------------|-----------------|---------|---------|-------------|
|            |                  | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales   | Income  | Value Added |
| Delaware   | 10,147           | 660          | 135,712    | 25,703    | 44,251      | 352             | 47,742  | 10,192  | 16,222      |
| Maryland   | 68,535           | 20,915       | 3,437,255  | 779,413   | 1,252,027   | 5,021           | 316,107 | 115,515 | 157,760     |
| New Jersey | 185,264          | 53,313       | 11,170,215 | 2,312,149 | 3,886,532   | 7,079           | 689,892 | 227,399 | 327,595     |
| New York   | 34,226           | 38,132       | 5,995,855  | 1,240,690 | 2,082,226   | 2,171           | 121,903 | 42,081  | 59,013      |
| Virginia   | 214,431          | 24,880       | 3,234,096  | 832,729   | 1,278,891   | 14,802          | 976,067 | 374,523 | 505,782     |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 554,607 | 509,999 | 440,098 | 478,267 | 528,072 | 550,673 | 510,777 | 477,763 | 497,961 | 512,603 |
| Finfish             | 116,351 | 125,577 | 115,568 | 114,664 | 110,358 | 103,625 | 110,557 | 104,197 | 109,956 | 144,272 |
| Shellfish and Other | 438,256 | 384,422 | 324,530 | 363,604 | 417,714 | 447,048 | 400,220 | 373,566 | 388,005 | 368,331 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 4,762   | 5,271   | 4,062   | 3,853   | 3,308   | 3,125   | 3,420   | 2,909   | 2,476   | 2,416   |
| Atlantic surf clam  | 18,737  | 16,813  | 13,688  | 11,455  | 13,004  | 12,477  | 1,465   | 12,546  | 11,910  | 230     |
| Blue crab           | 101,638 | 101,947 | 78,901  | 89,022  | 96,449  | 108,083 | 90,693  | 84,659  | 98,665  | 87,469  |
| Eastern oyster      | 13,043  | 20,231  | 43,700  | 54,577  | 60,951  | 46,551  | 61,899  | 52,503  | 51,349  | 51,651  |
| Menhaden            | 39,675  | 40,043  | 33,778  | 33,332  | 40,325  | 34,081  | 40,405  | 41,477  | 41,453  | 86,408  |
| Quahog clam         | 27,608  | 29,502  | 35,902  | 38,153  | 28,133  | 45,239  | 38,390  | 35,773  | 34,422  | 41,475  |
| Sea scallop         | 227,449 | 168,921 | 100,411 | 125,679 | 150,716 | 180,782 | 137,369 | 120,817 | 134,770 | 137,659 |
| Squid               | 20,562  | 17,661  | 12,039  | 8,294   | 8,378   | 15,325  | 15,412  | 22,625  | 23,830  | 15,048  |
| Striped bass        | 12,680  | 13,877  | 17,802  | 16,057  | 12,189  | 14,077  | 15,447  | 12,733  | 11,594  | 9,565   |
| Summer flounder     | 15,614  | 17,190  | 17,150  | 13,195  | 14,398  | 13,913  | 12,061  | 11,948  | 14,019  | 11,455  |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 798,970 | 762,886 | 586,783 | 595,694 | 644,299 | 589,376 | 617,657 | 629,462 | 644,498 | 559,362 |
| Finfish             | 568,383 | 562,347 | 431,484 | 448,349 | 493,628 | 418,489 | 440,535 | 456,118 | 469,739 | 420,970 |
| Shellfish and Other | 230,587 | 200,539 | 155,299 | 147,345 | 150,670 | 170,886 | 177,122 | 173,344 | 174,760 | 138,391 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 1,105   | 1,546   | 1,228   | 844     | 654     | 601     | 623     | 485     | 416     | 442     |
| Atlantic surf clam  | 30,272  | 27,008  | 22,788  | 19,447  | 21,392  | 20,169  | 2,167   | 18,580  | 17,573  | 340     |
| Blue crab           | 104,425 | 88,974  | 51,667  | 54,414  | 59,730  | 74,652  | 63,253  | 58,998  | 65,929  | 50,640  |
| Eastern oyster      | 2,031   | 2,738   | 4,922   | 5,456   | 6,626   | 5,036   | 5,110   | 4,689   | 4,549   | 4,300   |
| Menhaden            | 496,876 | 492,532 | 366,584 | 379,997 | 435,313 | 363,902 | 388,167 | 401,358 | 415,720 | 372,117 |
| Quahog clam         | 3,551   | 3,730   | 4,586   | 5,016   | 3,256   | 6,114   | 5,203   | 4,935   | 5,053   | 5,195   |
| Sea scallop         | 23,386  | 17,627  | 8,855   | 10,256  | 12,202  | 15,619  | 15,235  | 13,376  | 14,713  | 13,690  |
| Squid               | 33,150  | 25,435  | 14,516  | 8,142   | 7,102   | 15,078  | 30,116  | 35,792  | 30,929  | 27,343  |
| Striped bass        | 5,464   | 5,337   | 4,676   | 4,878   | 3,556   | 3,520   | 3,601   | 3,275   | 3,422   | 2,844   |
| Summer flounder     | 8,673   | 7,794   | 8,025   | 4,901   | 4,975   | 3,725   | 2,846   | 2,907   | 4,539   | 4,567   |

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

| Species            | 2011 | 2012 | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| American lobster   | 4.31 | 3.41 | 3.31  | 4.56  | 5.06  | 5.20  | 5.49  | 6.00  | 5.95  | 5.46  |
| Atlantic surf clam | 0.62 | 0.62 | 0.60  | 0.59  | 0.61  | 0.62  | 0.68  | 0.68  | 0.68  | 0.68  |
| Blue crab          | 0.97 | 1.15 | 1.53  | 1.64  | 1.61  | 1.45  | 1.43  | 1.43  | 1.50  | 1.73  |
| Eastern oyster     | 6.42 | 7.39 | 8.88  | 10.00 | 9.20  | 9.24  | 12.11 | 11.20 | 11.29 | 12.01 |
| Menhaden           | 0.08 | 0.08 | 0.09  | 0.09  | 0.09  | 0.09  | 0.10  | 0.10  | 0.10  | 0.23  |
| Quahog clam        | 7.77 | 7.91 | 7.83  | 7.61  | 8.64  | 7.40  | 7.38  | 7.25  | 6.81  | 7.98  |
| Sea scallop        | 9.73 | 9.58 | 11.34 | 12.25 | 12.35 | 11.57 | 9.02  | 9.03  | 9.16  | 10.06 |
| Squid              | 0.62 | 0.69 | 0.83  | 1.02  | 1.18  | 1.02  | 0.51  | 0.63  | 0.77  | 0.55  |
| Striped bass       | 2.32 | 2.60 | 3.81  | 3.29  | 3.43  | 4.00  | 4.29  | 3.89  | 3.39  | 3.36  |
| Summer flounder    | 1.80 | 2.21 | 2.14  | 2.69  | 2.89  | 3.74  | 4.24  | 4.11  | 3.09  | 2.51  |

**2020 Economic Impacts of the Mid-Atlantic Recreational Fishing (thousands of dollars; number of jobs)**

| State      | Trips  | Jobs  | Sales   | Income  | Value Added |
|------------|--------|-------|---------|---------|-------------|
| Delaware   | 2,118  | 903   | 109,964 | 36,497  | 71,650      |
| Maryland   | 7,974  | 3,393 | 334,972 | 124,426 | 214,509     |
| New Jersey | 16,017 | 4,455 | 724,406 | 296,484 | 469,413     |
| New York   | 14,841 | 4,872 | 428,806 | 189,097 | 328,055     |
| Virginia   | 8,164  | 3,449 | 389,716 | 143,185 | 253,690     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 1,797,315  | 95,551   | 992,321      | 709,443 |

**Recreational Anglers by Residential Area (thousands of anglers)<sup>1,2</sup>**

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Total Anglers | 2,389 | 2,268 | 2,219 | 2,241 | 1,984 | 2,407 | 1,898 | 1,917 | NA   | NA   |
| Coastal       | 2,244 | 2,093 | 2,080 | 2,111 | 1,860 | 2,238 | 1,751 | 1,811 | NA   | NA   |
| Non-Coastal   | 145   | 175   | 139   | 130   | 124   | 169   | 147   | 106   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 53,214 | 53,129 | 51,128 | 51,710 | 47,683 | 48,359 | 46,005 | 39,030 | 42,974 | 49,115 |
| For-Hire     | 1,031  | 983    | 1,361  | 1,209  | 1,299  | 688    | 743    | 770    | 839    | 659    |
| Private Boat | 22,649 | 22,528 | 21,648 | 20,821 | 18,975 | 19,112 | 18,863 | 14,692 | 16,312 | 18,102 |
| Shore        | 29,535 | 29,617 | 28,119 | 29,679 | 27,409 | 28,558 | 26,399 | 23,569 | 25,823 | 30,354 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>3</sup>**

| Species          | Category | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|------------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Atlantic croaker | H        | 10,726 | 12,385 | 18,080 | 13,390 | 10,437 | 7,969  | 8,134  | 5,894  | 3,181  | 6,887  |
|                  | R        | 15,564 | 26,605 | 30,906 | 15,221 | 8,602  | 8,250  | 11,677 | 5,792  | 8,021  | 9,528  |
| Black sea bass   | H        | 1,092  | 2,171  | 2,054  | 2,062  | 3,146  | 3,935  | 4,292  | 2,222  | 2,812  | 2,583  |
|                  | R        | 8,802  | 24,303 | 15,652 | 11,901 | 14,406 | 23,076 | 28,100 | 13,787 | 18,996 | 21,916 |
| Bluefish         | H        | 8,379  | 7,886  | 5,807  | 10,557 | 5,256  | 6,108  | 6,720  | 3,419  | 4,799  | 2,104  |
|                  | R        | 13,772 | 15,150 | 9,207  | 15,481 | 10,901 | 11,933 | 12,805 | 6,596  | 7,691  | 6,856  |
| Scup             | H        | 2,336  | 1,912  | 3,376  | 2,832  | 7,101  | 4,450  | 8,653  | 5,831  | 7,228  | 7,960  |
|                  | R        | 3,760  | 5,647  | 7,025  | 4,907  | 8,331  | 13,098 | 17,450 | 7,781  | 7,037  | 6,775  |
| Spot             | H        | 12,741 | 14,839 | 16,002 | 18,694 | 3,174  | 6,456  | 19,198 | 8,787  | 10,628 | 18,670 |
|                  | R        | 8,266  | 11,896 | 18,447 | 6,604  | 2,746  | 3,591  | 5,644  | 4,109  | 7,969  | 10,990 |
| Striped bass     | H        | 3,529  | 2,699  | 3,785  | 3,103  | 2,368  | 3,047  | 2,331  | 1,701  | 1,731  | 1,512  |
|                  | R        | 9,350  | 13,897 | 15,757 | 15,196 | 16,664 | 21,183 | 14,468 | 13,802 | 16,891 | 18,454 |
| Summer flounder  | H        | 3,477  | 4,969  | 5,633  | 4,337  | 3,249  | 3,680  | 2,741  | 1,966  | 1,990  | 3,153  |
|                  | R        | 48,568 | 36,828 | 35,595 | 36,106 | 28,159 | 24,784 | 23,194 | 19,327 | 25,749 | 27,479 |
| Tautog           | H        | 972    | 577    | 1,055  | 1,667  | 987    | 1,349  | 1,048  | 584    | 999    | 955    |
|                  | R        | 5,018  | 5,626  | 7,082  | 5,460  | 7,617  | 10,302 | 9,736  | 6,149  | 9,196  | 8,377  |
| Weakfish         | H        | 28     | 386    | 135    | 59     | 100    | 58     | 120    | 33     | 127    | 66     |
|                  | R        | 1,215  | 1,972  | 626    | 652    | 1,219  | 1,978  | 819    | 431    | 1,455  | 716    |
| Winter flounder  | H        | 234    | 177    | 21     | 124    | 18     | 93     | 9      | 14     | < 1    | 14     |
|                  | R        | 259    | 125    | 104    | 47     | 105    | 31     | 23     | 57     | 30     | 32     |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> Delaware anglers estimates are not available for the non-coastal mode.<sup>3</sup> 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



2020 Economic Impacts of the Delaware Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |         |        |             | Without Imports |        |        |             |
|--------------------------------------|--------------|---------|--------|-------------|-----------------|--------|--------|-------------|
|                                      | Jobs         | Sales   | Income | Value Added | Jobs            | Sales  | Income | Value Added |
| Total Impacts                        | 660          | 135,712 | 25,703 | 44,251      | 352             | 47,742 | 10,192 | 16,222      |
| Commercial Harvesters                | 179          | 18,591  | 4,424  | 5,990       | 179             | 18,591 | 4,424  | 5,990       |
| Seafood Processors and Dealers       | 65           | 13,951  | 2,454  | 4,719       | 34              | 7,198  | 1,266  | 2,435       |
| Importers                            | 217          | 71,750  | 11,499 | 21,872      | NA              | NA     | NA     | NA          |
| Seafood Wholesalers and Distributors | 58           | 9,378   | 3,566  | 4,251       | 23              | 3,635  | 1,382  | 1,648       |
| Retail                               | 141          | 22,043  | 3,760  | 7,418       | 117             | 18,319 | 3,119  | 6,150       |

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

| Category             | 2011  | 2012  | 2013  | 2014  | 2015  | 2016   | 2017  | 2018   | 2019   | 2020   |
|----------------------|-------|-------|-------|-------|-------|--------|-------|--------|--------|--------|
| Total                | 7,092 | 8,464 | 7,307 | 7,220 | 6,843 | 11,494 | 9,807 | 10,557 | 11,831 | 10,147 |
| Finfish              | 906   | 679   | 940   | 283   | 506   | 506    | 308   | 664    | 1,033  | 936    |
| Shellfish and Other  | 6,186 | 7,785 | 6,368 | 6,937 | 6,337 | 10,987 | 9,499 | 9,892  | 10,798 | 9,211  |
| Key Species          | -     | -     | -     | -     | -     | -      | -     | -      | -      | -      |
| American eel         | 274   | 159   | 244   | 156   | 127   | 130    | NA    | 97     | 43     | 6      |
| Black drum           | NA    | 4     | 11    | NA    | 17    | 20     | 0     | 11     | 4      | NA     |
| Black sea bass       | 196   | NA    | NA    | NA    | 304   | 301    | 278   | 513    | 494    | 429    |
| Blue crab            | 4,819 | 6,664 | 4,576 | 4,379 | 4,498 | 9,145  | 7,318 | 7,574  | 8,479  | 7,805  |
| Eastern oyster       | 347   | 345   | 407   | 420   | 358   | 498    | 701   | 644    | 994    | 469    |
| Knobbed whelk        | 106   | 18    | 299   | 438   | 381   | 294    | 237   | 640    | 518    | 261    |
| Northern quahog clam | 143   | 123   | 177   | 133   | 97    | 69     | 101   | 73     | 73     | 42     |
| Quahog clam          | 143   | 123   | 177   | 133   | 97    | 69     | 101   | 73     | 73     | 42     |
| Summer flounder      | 2     | NA    | NA    | 5     | 4     | 7      | 5     | 2      | 4      | 2      |
| Weakfish             | NA    | NA    | NA    | NA    | NA    | NA     | NA    | NA     | NA     | NA     |

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

| Category             | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total                | 4,921 | 5,640 | 4,048 | 3,727 | 3,529 | 5,684 | 5,080 | 5,283 | 5,994 | 5,276 |
| Finfish              | 448   | 424   | 441   | 337   | 390   | 329   | 215   | 455   | 428   | 510   |
| Shellfish and Other  | 4,473 | 5,216 | 3,607 | 3,390 | 3,139 | 5,356 | 4,864 | 4,828 | 5,565 | 4,767 |
| Key Species          | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| American eel         | 91    | 54    | 83    | 62    | 45    | 45    | NA    | 31    | 14    | 2     |
| Black drum           | NA    | 11    | 25    | NA    | 39    | 49    | 1     | 32    | 6     | NA    |
| Black sea bass       | 86    | NA    | NA    | NA    | 112   | 97    | 117   | 172   | 173   | 183   |
| Blue crab            | 3,502 | 4,571 | 2,488 | 2,000 | 2,124 | 4,555 | 3,788 | 3,842 | 4,659 | 4,108 |
| Eastern oyster       | 62    | 60    | 71    | 73    | 61    | 72    | 79    | 107   | 120   | 82    |
| Knobbed whelk        | 74    | 12    | 125   | 189   | 159   | 123   | 99    | 267   | 149   | 77    |
| Northern quahog clam | 39    | 32    | 43    | 41    | 30    | 18    | 28    | 20    | 21    | 12    |
| Quahog clam          | 39    | 32    | 43    | 41    | 30    | 18    | 28    | 20    | 21    | 12    |
| Summer flounder      | 1     | NA    | NA    | 2     | 1     | 2     | 1     | 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)

| Species              | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------------|------|------|------|------|------|------|------|------|------|------|
| American eel         | 3.03 | 2.93 | 2.94 | 2.50 | 2.83 | 2.93 | NA   | 3.08 | 3.13 | 2.95 |
| Black drum           | NA   | 0.35 | 0.43 | NA   | 0.44 | 0.41 | 0.61 | 0.35 | 0.67 | NA   |
| Black sea bass       | 2.29 | NA   | NA   | NA   | 2.73 | 3.11 | 2.36 | 2.98 | 2.86 | 2.35 |
| Blue crab            | 1.38 | 1.46 | 1.84 | 2.19 | 2.12 | 2.01 | 1.93 | 1.97 | 1.82 | 1.90 |
| Eastern oyster       | 5.56 | 5.76 | 5.71 | 5.71 | 5.85 | 6.90 | 8.83 | 6.03 | 8.27 | 5.73 |
| Knobbed whelk        | 1.43 | 1.43 | 2.40 | 2.31 | 2.40 | 2.40 | 2.40 | 2.40 | 3.47 | 3.40 |
| Northern quahog clam | 3.72 | 3.84 | 4.07 | 3.25 | 3.26 | 3.75 | 3.61 | 3.61 | 3.52 | 3.58 |
| Quahog clam          | 3.72 | 3.84 | 4.07 | 3.25 | 3.26 | 3.75 | 3.61 | 3.61 | 3.52 | 3.58 |
| Summer flounder      | 2.42 | NA   | NA   | 2.90 | 3.09 | 3.24 | 3.27 | 2.95 | 3.11 | 3.06 |
| Weakfish             | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Delaware Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs | Sales   | Income | Value Added |
|------------------------------|------|---------|--------|-------------|
| For-Hire                     | 36   | 3,263   | 1,222  | 1,850       |
| Private Boat                 | 293  | 40,733  | 12,515 | 25,233      |
| Shore                        | 574  | 65,968  | 22,760 | 44,566      |
| Total Durable Expenditures   | NA   | NA      | NA     | NA          |
| Total State Economic Impacts | 903  | 109,964 | 36,497 | 71,650      |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 98,819     | 2,133    | 38,474       | 58,212 |

**Recreational Anglers by Residential Area (thousands of anglers)<sup>2</sup>**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 318  | 262  | 179  | 239  | 151  | 272  | 174  | 133  | NA   | NA   |
| Coastal       | 129  | 111  | 82   | 93   | 67   | 104  | 80   | 64   | NA   | NA   |
| Non-Coastal   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |
| Out-of-State  | 190  | 151  | 97   | 146  | 84   | 168  | 94   | 69   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 2,878 | 2,516 | 2,435 | 2,491 | 2,071 | 2,130 | 1,991 | 2,147 | 2,108 | 2,118 |
| For-Hire     | 18    | 21    | 37    | 39    | 37    | 14    | 14    | 7     | 21    | 15    |
| Private Boat | 1,028 | 973   | 950   | 858   | 744   | 637   | 680   | 701   | 596   | 716   |
| Shore        | 1,832 | 1,523 | 1,448 | 1,593 | 1,289 | 1,480 | 1,297 | 1,439 | 1,491 | 1,387 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>3,4</sup>**

| Species           | Category | 2011  | 2012  | 2013  | 2014  | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------|----------|-------|-------|-------|-------|------|------|------|------|------|------|
| Atlantic croaker  | H        | 213   | 202   | 530   | 806   | 335  | 25   | 66   | 12   | 53   | 54   |
|                   | R        | 215   | 1,036 | 1,812 | 1,397 | 309  | 391  | 230  | 85   | 102  | 287  |
| Atlantic mackerel | H        | NA    | 0     | < 1   | NA    | < 1  | 0    | < 1  | NA   | NA   | NA   |
|                   | R        | NA    | < 1   | < 1   | NA    | 0    | < 1  | 0    | NA   | NA   | NA   |
| Black sea bass    | H        | 121   | 108   | 48    | 48    | 57   | 95   | 112  | 88   | 43   | 141  |
|                   | R        | 580   | 605   | 512   | 528   | 526  | 780  | 485  | 371  | 378  | 958  |
| Bluefish          | H        | 124   | 95    | 57    | 333   | 235  | 110  | 261  | 76   | 151  | 54   |
|                   | R        | 396   | 400   | 161   | 802   | 464  | 359  | 612  | 536  | 430  | 166  |
| Striped bass      | H        | 44    | 51    | 71    | 26    | 42   | 6    | 28   | 4    | 11   | 2    |
|                   | R        | 338   | 358   | 273   | 530   | 309  | 218  | 254  | 352  | 368  | 456  |
| Summer flounder   | H        | 141   | 101   | 120   | 189   | 120  | 173  | 98   | 85   | 91   | 207  |
|                   | R        | 1,330 | 556   | 518   | 651   | 431  | 557  | 591  | 513  | 441  | 575  |
| Tautog            | H        | 118   | 95    | 97    | 132   | 29   | 46   | 32   | 9    | 24   | 47   |
|                   | R        | 312   | 226   | 322   | 200   | 113  | 277  | 388  | 250  | 453  | 314  |
| Weakfish          | H        | < 1   | 11    | 16    | 7     | 2    | 1    | 1    | 2    | 10   | 5    |
|                   | R        | 14    | 213   | 52    | 55    | 34   | 63   | 38   | 27   | 105  | 57   |
| White perch       | H        | 344   | 183   | 331   | 305   | 118  | 10   | 99   | 117  | 318  | 128  |
|                   | R        | 876   | 534   | 1,139 | 186   | 355  | 46   | 179  | 416  | 189  | 627  |
| Yellowfin tuna    | H        | 1     | < 1   | 2     | 1     | 5    | < 1  | NA   | 1    | < 1  | 3    |
|                   | R        | < 1   | 0     | < 1   | < 1   | < 1  | 0    | NA   | < 1  | 0    | 0    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> Non-coastal data are not available because all of the state's residents are considered coastal county residents.

<sup>3</sup> 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.

<sup>4</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Delaware State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 26,142 (0.3%)                       | 413,410 (0.3%)                 | 23.9 (0.3%)                          | 34.6 (0.3%)                                 | 77.0                                      | ds                                   |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013 | 2014 | 2015 | 2016 | 2017  | 2018 | 2019 |
|---|-----------|-------|-------|------|------|------|------|-------|------|------|
| Seafood product preparation and packaging | Firms     | ds    | ds    | ds   | ds   | ds   | 3    | 5     | 9    | NA   |
|   | Receipts  | ds    | ds    | ds   | ds   | ds   | 558  | 458   | 786  | NA   |
| Seafood sales, retail                     | Firms     | 9     | 11    | 8    | 13   | 11   | 11   | 12    | 11   | NA   |
|   | Receipts  | 1,226 | 1,333 | 520  | 452  | 479  | 608  | 2,868 | 914  | NA   |

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

| Sector                                    | Statistic      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Seafood product preparation and packaging | Establishments | 1     | 1     | 1     | 2     | 1     | 2     | NA    | NA    | NA    |
|   | Employees      | ds    | ds    | ds    | ds    | ds    | ds    | NA    | NA    | NA    |
| Seafood Sales, Wholesale                  | Payroll        | ds    | ds    | ds    | ds    | ds    | ds    | NA    | NA    | NA    |
|   | Establishments | 7     | 7     | 9     | 8     | 6     | 6     | 5     | 6     | 7     |
| Seafood sales, retail                     | Employees      | ds    | ds    | ds    | ds    | 54    | 56    | 67    | 112   | 125   |
|   | Payroll        | ds    | ds    | 3,020 | 2,381 | 2,404 | 2,707 | 3,072 | 5,222 | 6,569 |
| Seafood sales, retail                     | Establishments | 18    | 16    | 17    | 17    | 14    | 12    | 12    | 10    | 11    |
|   | Employees      | 49    | ds    | 60    | 52    | 36    | 45    | 40    | 39    | 30    |
|   | Payroll        | 1,493 | 1,545 | 1,396 | 1,261 | 1,224 | 1,037 | 1,370 | 1,352 | 1,363 |

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

| Sector   | Statistic      | 2011   | 2012  | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|--|----------------|--------|-------|--------|--------|--------|--------|--------|--------|--------|
| Ship and Boat Building                         | Establishments | 3      | 4     | 4      | 6      | 6      | 5      | 4      | 4      | 3      |
|  | Employees      | ds     | 50    | 61     | 55     | 57     | 53     | ds     | 45     | 30     |
|  | Payroll        | ds     | 2,313 | 2,516  | 2,174  | 2,168  | 2,410  | ds     | 1,683  | 1,061  |
| Deep Sea Freight Transportation                | Establishments | 2      | 1     | 1      | 2      | 4      | 2      | NA     | NA     | NA     |
|  | Employees      | ds     | ds    | ds     | ds     | 98     | ds     | NA     | NA     | NA     |
|  | Payroll        | ds     | ds    | ds     | ds     | 8,771  | ds     | NA     | NA     | NA     |
| Deep Sea Passenger Transportation              | Establishments | NA     | NA    | 2      | 2      | 1      | 1      | NA     | NA     | NA     |
|  | Employees      | NA     | NA    | ds     | ds     | ds     | ds     | NA     | NA     | NA     |
|  | Payroll        | NA     | NA    | ds     | ds     | ds     | ds     | NA     | NA     | NA     |
| Coastal and Great Lakes Freight Transportation | Establishments | NA     | NA    | NA     | NA     | 1      | 2      | 5      | 3      | 3      |
|  | Employees      | NA     | NA    | NA     | NA     | ds     | ds     | 38     | 33     | 30     |
|  | Payroll        | NA     | NA    | NA     | NA     | ds     | ds     | 4,534  | 2,528  | 2,053  |
| Port and Harbor Operations                     | Establishments | 3      | 4     | 3      | 2      | 2      | 2      | NA     | 3      | 3      |
|  | Employees      | 44     | ds    | ds     | ds     | ds     | ds     | NA     | 11     | 689    |
|  | Payroll        | 1,512  | ds    | ds     | ds     | ds     | ds     | NA     | 5,092  | 32,508 |
| Marine Cargo Handling                          | Establishments | 3      | 2     | 3      | 3      | 3      | 3      | 4      | 3      | NA     |
|  | Employees      | 511    | ds    | 565    | 541    | 577    | 540    | 513    | 574    | NA     |
|  | Payroll        | 19,203 | ds    | 20,698 | 22,789 | 23,370 | 22,994 | 25,453 | 25,421 | NA     |
| Navigational Services to Shipping              | Establishments | 8      | 8     | 8      | 10     | 10     | 11     | 12     | 12     | 11     |
|  | Employees      | 78     | ds    | 82     | 92     | 81     | 92     | 101    | 92     | 102    |
|  | Payroll        | 5,096  | 3,111 | 5,330  | 5,350  | 5,938  | 6,709  | 6,796  | 7,494  | 7,119  |
| Marinas  | Establishments | 17     | 18    | 19     | 18     | 18     | 18     | 15     | 17     | 14     |
|  | Employees      | ds     | 67    | 64     | 95     | 86     | 86     | 67     | 71     | 83     |
|  | Payroll        | 3,106  | 1,963 | 2,196  | 2,293  | 2,527  | 2,527  | 2,128  | 2,478  | 2,830  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | Maryland





2020 Economic Impacts of the Maryland Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |           |         |             | Without Imports |         |         |             |
|--------------------------------------|--------------|-----------|---------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales     | Income  | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 20,915       | 3,437,255 | 779,413 | 1,252,027   | 5,021           | 316,107 | 115,515 | 157,760     |
| Commercial Harvesters                | 2,105        | 120,884   | 34,526  | 53,841      | 2,105           | 120,884 | 34,526  | 53,841      |
| Seafood Processors and Dealers       | 2,714        | 288,080   | 112,263 | 143,354     | 477             | 50,578  | 19,710  | 25,168      |
| Importers                            | 7,326        | 2,425,563 | 388,743 | 739,418     | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 1,341        | 211,733   | 71,973  | 95,567      | 151             | 23,770  | 8,080   | 10,729      |
| Retail                               | 7,429        | 390,994   | 171,908 | 219,848     | 2,289           | 120,875 | 53,200  | 68,022      |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 82,565 | 84,305 | 81,136 | 92,117 | 88,313 | 90,749 | 81,512 | 71,985 | 77,944 | 68,535 |
| Finfish             | 11,278 | 14,659 | 12,710 | 18,530 | 12,706 | 15,621 | 13,469 | 10,972 | 12,817 | 10,238 |
| Shellfish and Other | 71,287 | 69,646 | 68,427 | 73,587 | 75,607 | 75,128 | 68,043 | 61,014 | 65,127 | 58,296 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Atlantic croaker    | 482    | 689    | 455    | 492    | 342    | 179    | 138    | 77     | 5      | 3      |
| Black sea bass      | 507    | 421    | 710    | 834    | 792    | 896    | 1,236  | 1,254  | 1,192  | 865    |
| Blue crab           | 60,326 | 60,467 | 50,167 | 52,849 | 52,084 | 54,534 | 48,535 | 45,308 | 48,058 | 41,750 |
| Eastern oyster      | 3,691  | 5,710  | 13,827 | 15,687 | 15,093 | 12,265 | 10,473 | 6,741  | 9,949  | 10,150 |
| Menhaden            | 685    | 1,669  | 902    | 1,380  | 1,222  | 1,036  | 648    | 733    | 627    | 966    |
| Sea scallop         | 552    | 202    | 8      | 1,328  | 3,077  | 1,804  | 945    | 1,209  | 2,403  | 1,710  |
| Shad                | 118    | 151    | 146    | 486    | 361    | 233    | 3      | 566    | 248    | 185    |
| Shark               | 422    | 385    | 349    | 299    | 228    | 327    | 364    | 137    | 73     | 117    |
| Striped bass        | 5,623  | 6,172  | 8,043  | 8,092  | 6,194  | 7,131  | 7,061  | 6,022  | 6,015  | 5,307  |
| Summer flounder     | 463    | 380    | 541    | 598    | 597    | 668    | 564    | 608    | 402    | 433    |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 78,163 | 77,264 | 47,200 | 50,210 | 53,988 | 59,150 | 51,213 | 48,967 | 47,211 | 35,111 |
| Finfish             | 18,195 | 28,784 | 15,353 | 20,917 | 16,920 | 16,308 | 11,082 | 13,176 | 12,257 | 9,792  |
| Shellfish and Other | 59,968 | 48,480 | 31,847 | 29,293 | 37,068 | 42,841 | 40,131 | 35,790 | 34,954 | 25,320 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Atlantic croaker    | 804    | 1,091  | 864    | 504    | 340    | 162    | 94     | 53     | 3      | 2      |
| Black sea bass      | 182    | 144    | 234    | 252    | 236    | 272    | 410    | 374    | 370    | 397    |
| Blue crab           | 51,163 | 43,741 | 24,797 | 24,690 | 28,759 | 36,734 | 30,655 | 27,822 | 28,382 | 20,733 |
| Eastern oyster      | 356    | 618    | 1,404  | 1,196  | 1,191  | 887    | 671    | 465    | 657    | 937    |
| Menhaden            | 8,016  | 16,383 | 7,674  | 8,363  | 8,786  | 6,473  | 3,568  | 4,388  | 4,165  | 3,492  |
| Sea scallop         | 58     | 20     | 1      | 110    | 248    | 151    | 98     | 144    | 253    | 186    |
| Shad                | 974    | 1,514  | 1,449  | 1,639  | 2,145  | 1,148  | 3      | 3,289  | 1,655  | 1,233  |
| Shark               | 1,434  | 1,334  | 1,426  | 1,304  | 1,259  | 1,669  | 2,039  | 787    | 105    | 466    |
| Striped bass        | 2,343  | 2,285  | 1,981  | 2,353  | 1,708  | 1,718  | 1,829  | 1,760  | 1,747  | 1,589  |
| Summer flounder     | 259    | 165    | 194    | 192    | 188    | 159    | 137    | 143    | 155    | 201    |

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

| Species          | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic croaker | 0.60  | 0.63  | 0.53  | 0.98  | 1.01  | 1.10  | 1.47  | 1.46  | 1.70  | 1.55  |
| Black sea bass   | 2.78  | 2.92  | 3.03  | 3.31  | 3.35  | 3.30  | 3.02  | 3.35  | 3.23  | 2.18  |
| Blue crab        | 1.18  | 1.38  | 2.02  | 2.14  | 1.81  | 1.48  | 1.58  | 1.63  | 1.69  | 2.01  |
| Eastern oyster   | 10.37 | 9.24  | 9.85  | 13.11 | 12.67 | 13.83 | 15.60 | 14.50 | 15.13 | 10.83 |
| Menhaden         | 0.09  | 0.10  | 0.12  | 0.17  | 0.14  | 0.16  | 0.18  | 0.17  | 0.15  | 0.28  |
| Sea scallop      | 9.54  | 10.23 | 12.77 | 12.11 | 12.40 | 11.94 | 9.68  | 8.38  | 9.51  | 9.21  |
| Shad             | 0.12  | 0.10  | 0.10  | 0.30  | 0.17  | 0.20  | 1.18  | 0.17  | 0.15  | 0.15  |
| Shark            | 0.29  | 0.29  | 0.24  | 0.23  | 0.18  | 0.20  | 0.18  | 0.17  | 0.69  | 0.25  |
| Striped bass     | 2.40  | 2.70  | 4.06  | 3.44  | 3.63  | 4.15  | 3.86  | 3.42  | 3.44  | 3.34  |
| Summer flounder  | 1.78  | 2.30  | 2.80  | 3.11  | 3.18  | 4.20  | 4.10  | 4.24  | 2.60  | 2.16  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Maryland Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 585   | 61,527  | 23,817  | 37,839      |
| Private Boat                 | 1,431 | 149,889 | 55,277  | 94,732      |
| Shore                        | 1,377 | 123,556 | 45,333  | 81,938      |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 3,393 | 334,972 | 124,426 | 214,509     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 302,383    | 38,525   | 155,518      | 108,339 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 836  | 672  | 769  | 792  | 748  | 829  | 659  | 709  | NA   | NA   |
| Coastal       | 415  | 374  | 404  | 413  | 364  | 453  | 353  | 406  | NA   | NA   |
| Non-Coastal   | 49   | 40   | 36   | 41   | 31   | 23   | 41   | 30   | NA   | NA   |
| Out-of-State  | 372  | 258  | 329  | 338  | 352  | 352  | 265  | 274  | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 9,721 | 9,539 | 9,710 | 9,394 | 9,129 | 9,364 | 8,343 | 6,762 | 6,836 | 7,974 |
| For-Hire     | 154   | 156   | 153   | 189   | 177   | 131   | 211   | 145   | 223   | 219   |
| Private Boat | 4,708 | 5,150 | 4,861 | 4,167 | 4,366 | 4,160 | 3,415 | 2,692 | 2,756 | 3,440 |
| Shore        | 4,859 | 4,234 | 4,695 | 5,038 | 4,586 | 5,073 | 4,717 | 3,924 | 3,857 | 4,316 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3</sup>**

| Species          | Category | 2011  | 2012   | 2013   | 2014  | 2015  | 2016   | 2017  | 2018  | 2019  | 2020  |
|------------------|----------|-------|--------|--------|-------|-------|--------|-------|-------|-------|-------|
| Atlantic croaker | H        | 1,531 | 2,566  | 2,309  | 2,197 | 1,739 | 659    | 424   | 305   | 70    | 245   |
|                  | R        | 937   | 7,091  | 7,557  | 2,807 | 1,236 | 727    | 2,829 | 203   | 1,244 | 2,870 |
| Black sea bass   | H        | 79    | 161    | 27     | 63    | 89    | 207    | 149   | 154   | 129   | 81    |
|                  | R        | 811   | 1,323  | 768    | 956   | 763   | 1,054  | 865   | 1,282 | 1,636 | 830   |
| Bluefish         | H        | 731   | 349    | 119    | 396   | 287   | 212    | 176   | 275   | 112   | 174   |
|                  | R        | 1,037 | 521    | 723    | 491   | 662   | 556    | 197   | 418   | 227   | 320   |
| Spot             | H        | 2,125 | 2,121  | 2,456  | 4,396 | 1,352 | 1,145  | 3,251 | 1,210 | 2,634 | 3,640 |
|                  | R        | 783   | 3,292  | 7,621  | 2,207 | 642   | 713    | 2,280 | 943   | 3,312 | 5,561 |
| Striped bass     | H        | 1,113 | 720    | 1,185  | 1,640 | 1,112 | 1,546  | 1,092 | 993   | 765   | 735   |
|                  | R        | 3,484 | 9,001  | 6,676  | 8,304 | 8,524 | 13,781 | 7,788 | 7,458 | 6,998 | 7,044 |
| Summer flounder  | H        | 47    | 99     | 119    | 118   | 98    | 40     | 57    | 48    | 79    | 80    |
|                  | R        | 1,632 | 852    | 915    | 1,358 | 719   | 1,712  | 862   | 793   | 938   | 830   |
| Tautog           | H        | 64    | 20     | 23     | 1     | 12    | 4      | 19    | 18    | < 1   | 44    |
|                  | R        | 340   | 651    | 325    | 5     | 267   | 530    | 761   | 215   | 722   | 310   |
| Weakfish drum    | H        | < 1   | 39     | 4      | 2     | 13    | 2      | 9     | 0     | 7     | < 1   |
|                  | R        | 51    | 72     | 20     | 27    | 341   | 161    | 41    | 5     | 19    | 5     |
| White perch      | H        | 4,341 | 5,820  | 6,827  | 2,746 | 3,817 | 6,028  | 4,380 | 2,808 | 5,223 | 6,592 |
|                  | R        | 7,837 | 16,250 | 18,587 | 7,879 | 7,200 | 10,339 | 7,388 | 4,141 | 8,130 | 7,723 |
| Yellowfin tuna   | H        | < 1   | NA     | 4      | 17    | 12    | 23     | 112   | < 1   | 34    | 52    |
|                  | R        | 0     | NA     | 10     | 4     | 0     | 24     | 10    | < 1   | 20    | 0     |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Maryland State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 139,449 (1.8%)                      | 2,380,865 (1.8%)               | 137 (1.8%)                           | 230 (2%)                                    | 422                                       | ds                                   |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018   | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|--------|------|
| Seafood product preparation and packaging | Firms     | 55    | 67    | 49    | 60    | 53    | 64    | 70    | 50     | NA   |
|   | Receipts  | 2,374 | 3,030 | 3,158 | 3,230 | 3,133 | 3,440 | 3,676 | 2,971  | NA   |
| Seafood sales, retail                     | Firms     | 86    | 96    | 95    | 87    | 87    | 91    | 79    | 77     | NA   |
|   | Receipts  | 7,396 | 6,454 | 6,147 | 8,437 | 8,104 | 9,426 | 8,653 | 10,149 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 17     | 16     | 16     | 17     | 17     | 19     | 15     | 19     | 18     |
|   | Employees      | 264    | 266    | 309    | 284    | 288    | 260    | 280    | 261    | 265    |
|   | Payroll        | 12,773 | 13,587 | 12,455 | 13,131 | 13,631 | 17,775 | 18,251 | 18,156 | 17,391 |
| Seafood Sales, Wholesale                  | Establishments | 57     | 60     | 58     | 58     | 53     | 60     | 54     | 52     | 49     |
|   | Employees      | 775    | 724    | 636    | 630    | 605    | 654    | 752    | 1,072  | 1,095  |
| Seafood sales, retail                     | Payroll        | 38,971 | 34,194 | 30,119 | 31,503 | 33,739 | 36,196 | 41,754 | 63,195 | 67,285 |
|   | Establishments | 88     | 87     | 87     | 83     | 79     | 85     | 77     | 73     | 76     |
|   | Employees      | 562    | 575    | 574    | 562    | 539    | 561    | 522    | 541    | 502    |
|   | Payroll        | 12,883 | 13,027 | 13,623 | 13,907 | 15,033 | 15,910 | 15,031 | 15,125 | 14,704 |

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

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|--|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ship and Boat Building                         | Establishments | 35     | 34     | 31     | 35     | 36     | 36     | 31     | 30     | 32     |
|  | Employees      | 633    | 378    | 371    | 449    | 456    | 482    | 474    | 441    | 474    |
|  | Payroll        | 36,675 | 14,619 | 16,822 | 18,130 | 20,599 | 21,425 | 20,616 | 21,008 | 22,179 |
| Deep Sea Freight Transportation                | Establishments | 16     | 14     | 10     | 11     | 11     | 9      | 10     | 10     | 10     |
|  | Employees      | 329    | 245    | 139    | 135    | 118    | 140    | 119    | 112    | 180    |
|  | Payroll        | 25,071 | 17,938 | 10,041 | 11,600 | 11,097 | 10,396 | 10,504 | 12,296 | 13,712 |
| Deep Sea Passenger 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     |
| Coastal and Great Lakes Freight Transportation | Establishments | 6      | 4      | 4      | 8      | 6      | 8      | 5      | NA     | 3      |
|  | Employees      | ds     | ds     | ds     | ds     | ds     | ds     | ds     | NA     | 176    |
|  | Payroll        | ds     | ds     | 538    | ds     | ds     | ds     | ds     | NA     | 18,155 |
| Port and Harbor Operations                     | Establishments | 5      | 22     | 16     | 17     | 15     | 14     | 19     | 18     | 16     |
|  | Employees      | ds     | 1,875  | 962    | 1,220  | 1,349  | 1,080  | 1,211  | 1,401  | 1,387  |
|  | Payroll        | ds     | 93,001 | 44,436 | 57,543 | 55,375 | 52,510 | 62,934 | 69,177 | 69,426 |
| Marine Cargo Handling                          | Establishments | 17     | 6      | 12     | 12     | 12     | 13     | 11     | 11     | 12     |
|  | Employees      | 1,924  | ds     | 1,519  | 1,132  | 1,140  | 1,424  | 1,292  | 1,597  | 1,447  |
|  | Payroll        | 86,680 | ds     | 60,500 | 60,962 | 81,751 | 75,022 | 78,142 | 96,776 | 99,865 |
| Navigational Services to Shipping              | Establishments | 11     | 10     | 11     | 10     | 11     | 11     | 16     | 19     | 21     |
|  | Employees      | 84     | ds     | 245    | 131    | 125    | 114    | 194    | 942    | 1,001  |
|  | Payroll        | 4,259  | ds     | 17,066 | 6,345  | 6,411  | 6,055  | 11,241 | 75,779 | 86,313 |
| Marinas  | Establishments | 172    | 159    | 170    | 166    | 172    | 171    | 161    | 165    | 164    |
|  | Employees      | 1,294  | 1,276  | 1,328  | 1,366  | 1,380  | 1,396  | 1,234  | 1,300  | 1,402  |
|  | Payroll        | 43,330 | 43,531 | 45,540 | 47,443 | 50,633 | 51,934 | 47,963 | 52,729 | 58,228 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | New Jersey



2020 Economic Impacts of the New Jersey Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |            |           |             | Without Imports |         |         |             |
|--------------------------------------|--------------|------------|-----------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 53,313       | 11,170,215 | 2,312,149 | 3,886,532   | 7,079           | 689,892 | 227,399 | 327,595     |
| Commercial Harvesters                | 2,630        | 369,216    | 97,000    | 157,329     | 2,630           | 369,216 | 97,000  | 157,329     |
| Seafood Processors and Dealers       | 1,791        | 199,394    | 75,515    | 98,562      | 675             | 75,089  | 28,438  | 37,117      |
| Importers                            | 26,180       | 8,668,293  | 1,389,259 | 2,642,475   | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 4,304        | 823,967    | 264,823   | 360,107     | 194             | 37,147  | 11,939  | 16,235      |
| Retail                               | 18,407       | 1,109,345  | 485,553   | 628,059     | 3,581           | 208,441 | 90,023  | 116,914     |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 220,346 | 187,675 | 131,345 | 149,324 | 166,222 | 191,154 | 184,667 | 169,702 | 181,741 | 185,264 |
| Finfish             | 25,416  | 27,412  | 24,472  | 23,451  | 28,326  | 25,366  | 32,851  | 29,889  | 30,761  | 43,982  |
| Shellfish and Other | 194,930 | 160,263 | 106,874 | 125,873 | 137,896 | 165,789 | 151,816 | 139,813 | 150,981 | 141,283 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 3,088   | 3,938   | 2,797   | 2,380   | 2,248   | 1,883   | 2,245   | 2,052   | 1,690   | 1,607   |
| Atlantic herring    | 414     | 145     | 401     | 615     | 308     | 292     | 482     | 354     | NA      | NA      |
| Atlantic mackerel   | 53      | 577     | 18      | 12      | 535     | 79      | 596     | 1,298   | 990     | 1,160   |
| Black sea bass      | 970     | 1,054   | 1,370   | 1,603   | 1,763   | 1,945   | 2,823   | 2,809   | 2,679   | 2,653   |
| Blue crab           | 9,429   | 10,011  | NA      | 4,157   | 8,699   | 5,668   | 8,946   | 8,607   | 8,032   | 9,562   |
| Goosefish           | 3,654   | 3,301   | 2,453   | 2,428   | 2,364   | 2,470   | 1,558   | 1,349   | 1,415   | 893     |
| Sea scallop         | 142,510 | 110,560 | 65,190  | 87,745  | 97,855  | 123,362 | 99,253  | 83,181  | 96,386  | 97,540  |
| Squid               | 12,806  | 8,949   | 5,804   | 2,643   | 2,798   | 7,209   | 10,437  | 14,464  | 16,382  | 10,885  |
| Summer flounder     | 5,461   | 5,433   | 4,899   | 4,862   | 5,059   | 5,442   | 4,296   | 4,549   | 5,094   | 5,152   |
| Tilefish            | 1,063   | 1,168   | 1,154   | 1,760   | 1,604   | 1,261   | 1,217   | 1,190   | 1,315   | 1,152   |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 187,153 | 180,436 | 119,518 | 124,925 | 148,353 | 132,342 | 197,584 | 189,551 | 175,341 | 173,948 |
| Finfish             | 91,423  | 100,764 | 54,356  | 61,113  | 89,910  | 68,067  | 114,825 | 104,947 | 93,806  | 106,472 |
| Shellfish and Other | 95,730  | 79,673  | 65,162  | 63,813  | 58,443  | 64,275  | 82,759  | 84,604  | 81,535  | 67,476  |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| American lobster    | 698     | 919     | 660     | 526     | 445     | 350     | 409     | 345     | 291     | 309     |
| Atlantic herring    | 2,380   | 1,106   | 2,344   | 4,087   | 3,428   | 2,798   | 3,353   | 3,374   | NA      | NA      |
| Atlantic mackerel   | 106     | 1,997   | 46      | 17      | 2,188   | 306     | 2,778   | 7,108   | 5,514   | 5,295   |
| Black sea bass      | 294     | 311     | 421     | 494     | 468     | 526     | 899     | 700     | 720     | 1,077   |
| Blue crab           | 9,611   | 7,396   | NA      | 3,233   | 7,247   | 6,816   | 6,410   | 5,435   | 5,314   | 5,483   |
| Goosefish           | 2,275   | 2,212   | 2,231   | 2,172   | 1,903   | 1,885   | 1,388   | 1,719   | 1,895   | 1,183   |
| Sea scallop         | 14,545  | 11,379  | 5,640   | 7,133   | 7,847   | 10,491  | 10,961  | 9,206   | 10,464  | 9,669   |
| Squid               | 25,956  | 17,521  | 9,189   | 2,773   | 2,647   | 8,512   | 26,749  | 30,730  | 26,464  | 24,171  |
| Summer flounder     | 2,831   | 2,269   | 2,004   | 1,826   | 1,682   | 1,297   | 962     | 1,046   | 1,599   | 1,907   |
| Tilefish            | 360     | 406     | 377     | 582     | 434     | 335     | 438     | 411     | 405     | 377     |

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

| Species           | 2011 | 2012 | 2013  | 2014  | 2015  | 2016  | 2017 | 2018 | 2019 | 2020  |
|-------------------|------|------|-------|-------|-------|-------|------|------|------|-------|
| American lobster  | 4.42 | 4.28 | 4.23  | 4.52  | 5.05  | 5.38  | 5.49 | 5.96 | 5.81 | 5.20  |
| Atlantic herring  | 0.17 | 0.13 | 0.17  | 0.15  | 0.09  | 0.10  | 0.14 | 0.10 | NA   | NA    |
| Atlantic mackerel | 0.50 | 0.29 | 0.40  | 0.73  | 0.24  | 0.26  | 0.21 | 0.18 | 0.18 | 0.22  |
| Black sea bass    | 3.30 | 3.39 | 3.25  | 3.25  | 3.76  | 3.70  | 3.14 | 4.01 | 3.72 | 2.46  |
| Blue crab         | 0.98 | 1.35 | NA    | 1.29  | 1.20  | 0.83  | 1.40 | 1.58 | 1.51 | 1.74  |
| Goosefish         | 1.61 | 1.49 | 1.10  | 1.12  | 1.24  | 1.31  | 1.12 | 0.78 | 0.75 | 0.75  |
| Sea scallop       | 9.80 | 9.72 | 11.56 | 12.30 | 12.47 | 11.76 | 9.05 | 9.04 | 9.21 | 10.09 |
| Squid             | 0.49 | 0.51 | 0.63  | 0.95  | 1.06  | 0.85  | 0.39 | 0.47 | 0.62 | 0.45  |
| Summer flounder   | 1.93 | 2.39 | 2.44  | 2.66  | 3.01  | 4.20  | 4.47 | 4.35 | 3.19 | 2.70  |
| Tilefish          | 2.95 | 2.88 | 3.06  | 3.02  | 3.69  | 3.76  | 2.78 | 2.89 | 3.25 | 3.06  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of New Jersey Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 199   | 22,006  | 8,025   | 13,828      |
| Private Boat                 | 2,432 | 431,705 | 170,815 | 274,097     |
| Shore                        | 1,824 | 270,694 | 117,644 | 181,487     |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 4,455 | 724,406 | 296,484 | 469,413     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 602,254    | 13,684   | 372,825      | 215,745 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011  | 2012  | 2013 | 2014  | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|-------|-------|------|-------|------|------|------|------|------|------|
| Total Anglers | 1,067 | 1,121 | 931  | 1,189 | 987  | 916  | 716  | 750  | NA   | NA   |
| Coastal       | 687   | 662   | 581  | 607   | 515  | 507  | 447  | 411  | NA   | NA   |
| Non-Coastal   | 23    | 27    | 20   | 17    | 24   | 32   | 16   | 17   | NA   | NA   |
| Out-of-State  | 357   | 431   | 330  | 566   | 448  | 378  | 253  | 322  | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 17,532 | 18,153 | 15,767 | 17,012 | 14,485 | 13,852 | 12,288 | 12,493 | 13,380 | 16,017 |
| For-Hire     | 370    | 388    | 532    | 494    | 450    | 234    | 215    | 289    | 292    | 124    |
| Private Boat | 7,129  | 7,107  | 6,476  | 6,260  | 5,013  | 4,741  | 4,848  | 4,432  | 4,357  | 5,702  |
| Shore        | 10,033 | 10,659 | 8,759  | 10,259 | 9,021  | 8,877  | 7,225  | 7,772  | 8,732  | 10,192 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3,4</sup>**

| Species         | Category | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017  | 2018   | 2019   | 2020   |
|-----------------|----------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|
| Black sea bass  | H        | 285    | 1,364  | 934    | 639    | 440    | 517    | 1,500 | 1,040  | 831    | 812    |
|                 | R        | 4,454  | 11,111 | 8,612  | 4,789  | 4,984  | 6,239  | 7,939 | 5,613  | 5,353  | 6,400  |
| Bluefin tuna    | H        | 13     | < 1    | 30     | 11     | 2      | 5      | 22    | 23     | 33     | 22     |
|                 | R        | 31     | 0      | 0      | 2      | 2      | 9      | 22    | 30     | 55     | 10     |
| Bluefish        | H        | 3,934  | 3,133  | 2,322  | 4,557  | 1,765  | 3,282  | 3,047 | 1,421  | 742    | 595    |
|                 | R        | 6,867  | 6,407  | 3,540  | 7,411  | 4,001  | 7,084  | 7,677 | 2,512  | 2,569  | 2,777  |
| Red hake        | H        | 220    | 71     | 104    | 218    | 51     | 41     | 58    | 165    | 278    | 184    |
|                 | R        | 29     | 259    | 157    | 33     | 17     | 13     | 57    | 93     | 24     | 145    |
| Striped bass    | H        | 1,039  | 742    | 1,324  | 502    | 600    | 660    | 626   | 465    | 413    | 520    |
|                 | R        | 2,447  | 1,822  | 4,349  | 2,840  | 2,440  | 1,808  | 2,317 | 2,756  | 2,709  | 3,313  |
| Summer flounder | H        | 1,969  | 3,086  | 3,450  | 2,418  | 1,180  | 1,456  | 1,211 | 1,045  | 1,108  | 1,990  |
|                 | R        | 24,558 | 22,080 | 19,160 | 22,209 | 10,821 | 12,299 | 7,785 | 10,371 | 13,068 | 17,112 |
| Tautog          | H        | 314    | 92     | 443    | 533    | 339    | 190    | 569   | 385    | 311    | 309    |
|                 | R        | 2,518  | 1,754  | 1,811  | 2,040  | 1,614  | 1,984  | 3,048 | 2,572  | 1,787  | 3,382  |
| Weakfish        | H        | 8      | 277    | 90     | 16     | 73     | 12     | 79    | 16     | 35     | 10     |
|                 | R        | 288    | 1,384  | 331    | 194    | 598    | 278    | 147   | 41     | 202    | 91     |
| Winter flounder | H        | 122    | < 1    | 21     | 52     | 3      | 56     | 8     | 14     | < 1    | 14     |
|                 | R        | 92     | 2      | 89     | 19     | 102    | 21     | 15    | 13     | 1      | 4      |
| Yellowfin tuna  | H        | 18     | 183    | 148    | 22     | 13     | 29     | 33    | 147    | 19     | 146    |
|                 | R        | < 1    | 8      | 6      | 0      | 23     | 20     | 4     | 78     | 6      | < 1    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.<sup>4</sup> Bluefin tuna include bluefin tuna and blue shark.

2019 New Jersey State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 233,888 (2.9%)                      | 3,805,357 (2.9%)               | 240 (3.2%)                           | 349 (3.1%)                                  | 639                                       | 1.32                                 |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018   | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|--------|------|
| Seafood product preparation and packaging | Firms     | 29    | 35    | 48    | 45    | 39    | 44    | 44    | 43     | NA   |
|   | Receipts  | 3,447 | 3,565 | 4,981 | 5,736 | 3,603 | 3,811 | 3,701 | 4,135  | NA   |
| Seafood sales, retail                     | Firms     | 68    | 77    | 74    | 74    | 70    | 68    | 68    | 75     | NA   |
|   | Receipts  | 8,049 | 8,972 | 8,257 | 7,135 | 7,711 | 7,042 | 9,733 | 11,051 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 12     | 11     | 13     | 13     | 15     | 13     | 18     | 15     | 16     |
|   | Employees      | 518    | 404    | 671    | 647    | 715    | 452    | 716    | 458    | 521    |
|   | Payroll        | 17,940 | 13,747 | 22,764 | 21,933 | 25,929 | 17,030 | 27,436 | 18,988 | 20,913 |
| Seafood Sales, Wholesale                  | Establishments | 91     | 82     | 80     | 78     | 78     | 73     | 73     | 77     | 69     |
|   | Employees      | 935    | 1,058  | 765    | 795    | 784    | 753    | 775    | 768    | 756    |
| Seafood sales, retail                     | Payroll        | 40,103 | 44,033 | 37,405 | 36,773 | 39,900 | 41,239 | 42,765 | 41,658 | 41,495 |
|   | Establishments | 109    | 114    | 114    | 108    | 115    | 116    | 115    | 111    | 111    |
|   | Employees      | 332    | 382    | 419    | 434    | 446    | 471    | 428    | 412    | 433    |
|   | Payroll        | 9,264  | 11,561 | 11,657 | 12,520 | 12,591 | 13,351 | 12,696 | 12,556 | 15,701 |

Transport, Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 23      | 21      | 24      | 24      | 23      | 24      | 23      | 20      | 22      |
|  | Employees      | 864     | 901     | 917     | 1,080   | 1,329   | 1,417   | 1,594   | 1,605   | 1,339   |
|  | Payroll        | 39,810  | 36,334  | 41,886  | 50,459  | 59,130  | 64,354  | 78,326  | 78,044  | 71,285  |
| Deep Sea Freight Transportation                | Establishments | 26      | 25      | 20      | 21      | 24      | 22      | 18      | 17      | 17      |
|  | Employees      | ds      | 390     | 225     | 212     | 193     | 187     | 137     | 140     | 121     |
| Deep Sea Passenger Transportation              | Payroll        | 81,936  | 27,481  | 12,263  | 11,271  | 11,522  | 11,988  | 9,580   | 9,468   | 8,413   |
|  | Establishments | 2       | 2       | NA      | 2       | 1       | 1       | NA      | NA      | NA      |
|  | Employees      | ds      | ds      | NA      | ds      | ds      | ds      | NA      | NA      | NA      |
| Coastal and Great Lakes Freight Transportation | Payroll        | ds      | ds      | NA      | ds      | ds      | ds      | NA      | NA      | NA      |
|  | Establishments | 20      | 16      | 16      | 13      | 13      | 15      | 15      | 16      | 13      |
|  | Employees      | 508     | 402     | 367     | 365     | 414     | 404     | 419     | 441     | 532     |
| Port and Harbor Operations                     | Payroll        | 40,587  | 32,007  | 32,431  | 33,308  | 37,888  | 38,330  | 45,683  | 47,778  | 54,776  |
|  | Establishments | 7       | 25      | 18      | 18      | 17      | 18      | 14      | 18      | 18      |
|  | Employees      | 163     | ds      | ds      | ds      | 106     | 105     | 79      | 865     | 937     |
| Marine Cargo Handling                          | Payroll        | 16,933  | 139,276 | 5,995   | 6,334   | 6,305   | 6,202   | 5,457   | 140,095 | 150,574 |
|  | Establishments | 22      | 15      | 20      | 21      | 20      | 20      | 20      | 17      | 18      |
|  | Employees      | 3,744   | 2,582   | 6,912   | 6,082   | 5,005   | 4,692   | 4,454   | 4,218   | 4,073   |
| Navigational Services to Shipping              | Payroll        | 273,636 | 203,148 | 538,991 | 563,746 | 521,401 | 519,594 | 553,019 | 560,509 | 584,428 |
|  | Establishments | 17      | 18      | 18      | 18      | 20      | 18      | 23      | 21      | 22      |
|  | Employees      | 110     | 96      | 106     | 92      | 88      | 75      | 123     | 135     | 109     |
| Marinas  | Payroll        | 5,619   | 5,983   | 6,057   | 5,597   | 6,914   | 5,851   | 7,635   | 8,248   | 9,256   |
|  | Establishments | 206     | 210     | 206     | 190     | 196     | 194     | 191     | 194     | 186     |
|  | Employees      | 773     | 811     | 787     | 737     | 776     | 826     | 811     | 877     | 923     |
|  | Payroll        | 34,675  | 35,760  | 37,606  | 36,583  | 38,469  | 40,971  | 41,403  | 44,425  | 48,241  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.  
<sup>2</sup> 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.  
<sup>3</sup> ds = Data are suppressed.

# Tables | New York





2020 Economic Impacts of the New York Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |           |           |             | Without Imports |         |        |             |
|--------------------------------------|--------------|-----------|-----------|-------------|-----------------|---------|--------|-------------|
|                                      | Jobs         | Sales     | Income    | Value Added | Jobs            | Sales   | Income | Value Added |
| Total Impacts                        | 38,132       | 5,995,855 | 1,240,690 | 2,082,226   | 2,171           | 121,903 | 42,081 | 59,013      |
| Commercial Harvesters                | 1,062        | 61,230    | 17,602    | 27,069      | 1,062           | 61,230  | 17,602 | 27,069      |
| Seafood Processors and Dealers       | 864          | 149,161   | 56,713    | 73,768      | 80              | 13,752  | 5,229  | 6,801       |
| Importers                            | 14,384       | 4,762,623 | 763,301   | 1,451,856   | NA              | NA      | NA     | NA          |
| Seafood Wholesalers and Distributors | 4,184        | 362,589   | 122,578   | 165,276     | 78              | 6,778   | 2,291  | 3,090       |
| Retail                               | 17,638       | 660,252   | 280,496   | 364,257     | 952             | 40,143  | 16,959 | 22,053      |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 50,627 | 55,030 | 57,291 | 56,775 | 69,163 | 52,574 | 46,787 | 46,864 | 42,176 | 34,226 |
| Finfish             | 21,736 | 22,705 | 22,574 | 18,597 | 18,541 | 18,299 | 17,104 | 14,996 | 18,387 | 17,724 |
| Shellfish and Other | 28,891 | 32,325 | 34,718 | 38,178 | 50,622 | 34,275 | 29,683 | 31,868 | 23,789 | 16,502 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| American lobster    | 1,398  | 999    | 938    | 985    | 711    | 1,037  | 761    | 658    | 690    | 641    |
| Atlantic surf clam  | 545    | 3,096  | 2,410  | NA     | 2,115  | 2,507  | 1,465  | 1,019  | NA     | 230    |
| Eastern oyster      | 2,174  | 2,227  | 4,149  | 9,372  | 9,001  | NA     | 1,442  | 1,666  | 1,772  | 3,198  |
| Loligo squid        | 7,250  | 8,648  | 5,949  | 5,448  | 5,413  | 7,830  | 4,924  | 7,946  | 6,793  | 3,615  |
| Quahog clam         | 6,905  | 9,218  | 13,475 | 11,777 | NA     | 11,957 | 11,678 | 9,573  | 8,766  | 5,134  |
| Scups and porgies   | 2,554  | 3,536  | 2,971  | 2,313  | 3,138  | 2,897  | 2,492  | 2,800  | 3,200  | 4,017  |
| Sea scallop         | 4,960  | 4,083  | 2,602  | 2,963  | 978    | 3,783  | 2,136  | 1,361  | 998    | 1,277  |
| Softshell clam      | 351    | 332    | 848    | 982    | 2,854  | 1,137  | 596    | 603    | 892    | 420    |
| Summer flounder     | 3,732  | 3,653  | 3,197  | 2,997  | 3,043  | 2,527  | 2,402  | 2,219  | 3,488  | 2,965  |
| Tilefishes          | 4,525  | 4,260  | 4,675  | 4,255  | 3,656  | 2,985  | 3,329  | 3,651  | 4,060  | 3,610  |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 32,152 | 37,104 | 34,440 | 27,669 | 30,272 | 30,233 | 25,166 | 22,868 | 23,581 | 23,165 |
| Finfish             | 17,397 | 16,758 | 17,239 | 13,643 | 13,486 | 13,271 | 12,349 | 10,503 | 12,474 | 15,837 |
| Shellfish and Other | 14,755 | 20,346 | 17,201 | 14,026 | 16,786 | 16,962 | 12,817 | 12,365 | 11,107 | 7,328  |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| American lobster    | 344    | 550    | 497    | 223    | 147    | 219    | 150    | 113    | 112    | 112    |
| Atlantic surf clam  | 809    | 4,590  | 3,452  | NA     | 3,110  | 3,677  | 2,167  | 1,518  | NA     | 340    |
| Eastern oyster      | 98     | 108    | 204    | 422    | 787    | NA     | 273    | 316    | 337    | 301    |
| Loligo squid        | 5,630  | 7,838  | 4,985  | 5,138  | 4,259  | 6,303  | 3,315  | 4,901  | 4,026  | 2,736  |
| Quahog clam         | 1,131  | 1,299  | 1,932  | 1,781  | NA     | 2,174  | 2,027  | 1,787  | 1,952  | 1,109  |
| Scups and porgies   | 3,735  | 4,307  | 4,575  | 3,175  | 4,050  | 3,504  | 3,465  | 3,354  | 4,068  | 4,822  |
| Sea scallop         | 522    | 430    | 256    | 262    | 87     | 398    | 251    | 157    | 103    | 128    |
| Softshell clam      | 57     | 54     | 138    | 160    | 499    | 243    | 127    | 129    | 190    | 90     |
| Summer flounder     | 1,517  | 1,238  | 1,033  | 833    | 830    | 604    | 491    | 463    | 866    | 871    |
| Tilefishes          | 1,521  | 1,413  | 1,468  | 1,383  | 936    | 745    | 1,051  | 1,161  | 1,127  | 998    |

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

| Species            | 2011  | 2012  | 2013  | 2014  | 2015  | 2016 | 2017 | 2018 | 2019 | 2020  |
|--------------------|-------|-------|-------|-------|-------|------|------|------|------|-------|
| American lobster   | 4.06  | 1.81  | 1.89  | 4.42  | 4.82  | 4.74 | 5.06 | 5.84 | 6.15 | 5.74  |
| Atlantic surf clam | 0.67  | 0.67  | 0.70  | NA    | 0.68  | 0.68 | 0.68 | 0.67 | NA   | 0.68  |
| Eastern oyster     | 22.23 | 20.58 | 20.32 | 22.23 | 11.43 | NA   | 5.29 | 5.28 | 5.26 | 10.64 |
| Loligo squid       | 1.29  | 1.10  | 1.19  | 1.06  | 1.27  | 1.24 | 1.49 | 1.62 | 1.69 | 1.32  |
| Quahog clam        | 6.10  | 7.10  | 6.97  | 6.61  | NA    | 5.50 | 5.76 | 5.36 | 4.49 | 4.63  |
| Scups and porgies  | 0.68  | 0.82  | 0.65  | 0.73  | 0.77  | 0.83 | 0.72 | 0.83 | 0.79 | 0.83  |
| Sea scallop        | 9.50  | 9.50  | 10.18 | 11.33 | 11.21 | 9.51 | 8.50 | 8.66 | 9.69 | 9.96  |
| Softshell clam     | 6.13  | 6.12  | 6.13  | 6.13  | 5.73  | 4.69 | 4.69 | 4.69 | 4.69 | 4.69  |
| Summer flounder    | 2.46  | 2.95  | 3.09  | 3.60  | 3.67  | 4.19 | 4.89 | 4.80 | 4.03 | 3.40  |
| Tilefishes         | 2.97  | 3.01  | 3.18  | 3.08  | 3.90  | 4.01 | 3.17 | 3.14 | 3.60 | 3.62  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

2020 Economic Impacts of New York Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 415   | 46,621  | 17,748  | 30,108      |
| Private Boat                 | 2,786 | 239,373 | 106,650 | 186,540     |
| Shore                        | 1,671 | 142,812 | 64,699  | 111,406     |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 4,872 | 428,806 | 189,097 | 328,055     |

2020 Angler Trip Expenditures (thousands of dollars)

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 467,684    | 32,618   | 286,839      | 148,227 |

Recreational Anglers by Residential Area (thousands of anglers)

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 561  | 616  | 695  | 830  | 618  | 922  | 613  | 722  | NA   | NA   |
| Coastal       | 497  | 533  | 595  | 657  | 555  | 780  | 541  | 605  | NA   | NA   |
| Non-Coastal   | 18   | 30   | 8    | 19   | 10   | 29   | 10   | 14   | NA   | NA   |
| Out-of-State  | 46   | 53   | 93   | 155  | 53   | 113  | 62   | 103  | NA   | NA   |

Recreational Fishing Effort by Mode (thousands of angler trips)

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 14,206 | 14,633 | 15,209 | 15,402 | 15,271 | 15,765 | 16,634 | 11,242 | 13,412 | 14,841 |
| For-Hire     | 457    | 374    | 580    | 434    | 569    | 270    | 259    | 304    | 265    | 271    |
| Private Boat | 5,528  | 5,652  | 5,961  | 6,457  | 6,400  | 6,915  | 7,372  | 4,652  | 5,952  | 5,605  |
| Shore        | 8,221  | 8,607  | 8,668  | 8,511  | 8,302  | 8,580  | 9,003  | 6,286  | 7,194  | 8,965  |

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3</sup>

| Species             | Category | 2011   | 2012   | 2013   | 2014  | 2015   | 2016   | 2017   | 2018  | 2019  | 2020   |
|---------------------|----------|--------|--------|--------|-------|--------|--------|--------|-------|-------|--------|
| Atlantic herring    | H        | 732    | 1,391  | 1,520  | 1,190 | 11,460 | 2,105  | 1,052  | 82    | 3,220 | 1,505  |
|                     | R        | < 1    | 0      | 409    | 41    | 229    | 161    | 104    | 0     | 188   | 605    |
| Black seabass       | H        | 570    | 526    | 999    | 1,234 | 2,494  | 3,035  | 2,434  | 853   | 1,577 | 1,274  |
|                     | R        | 1,787  | 9,302  | 4,255  | 3,666 | 7,486  | 13,134 | 16,538 | 5,049 | 9,725 | 11,367 |
| Bluefish            | H        | 3,344  | 3,785  | 2,830  | 4,847 | 2,438  | 2,078  | 3,063  | 1,204 | 3,037 | 886    |
|                     | R        | 5,001  | 7,100  | 4,248  | 6,228 | 5,090  | 3,368  | 3,936  | 2,702 | 3,339 | 2,816  |
| Scup                | H        | 2,141  | 1,636  | 2,907  | 2,787 | 7,013  | 3,645  | 6,473  | 5,371 | 7,122 | 7,030  |
|                     | R        | 3,606  | 4,633  | 6,691  | 4,877 | 7,728  | 12,401 | 15,352 | 7,454 | 6,681 | 5,815  |
| Shortfin mako shark | H        | 0      | < 1    | 0      | 35    | 22     | 4      | 41     | < 1   | 3     | 4      |
|                     | R        | 24     | 24     | 3      | 52    | 21     | 29     | 5      | 65    | < 1   | 2      |
| Striped bass        | H        | 1,005  | 928    | 902    | 804   | 407    | 698    | 477    | 182   | 498   | 204    |
|                     | R        | 2,692  | 2,428  | 3,956  | 2,784 | 3,682  | 3,739  | 2,771  | 1,989 | 6,161 | 6,712  |
| Summer flounder     | H        | 661    | 1,005  | 1,385  | 1,173 | 1,517  | 1,800  | 1,186  | 641   | 561   | 731    |
|                     | R        | 16,598 | 10,682 | 13,492 | 9,658 | 14,470 | 9,651  | 12,345 | 6,776 | 9,002 | 7,548  |
| Tautog              | H        | 323    | 303    | 473    | 913   | 581    | 1,069  | 405    | 163   | 636   | 492    |
|                     | R        | 1,738  | 2,935  | 4,570  | 3,017 | 5,577  | 7,367  | 5,462  | 3,040 | 6,159 | 4,256  |
| Weakfish            | H        | < 1    | 13     | 21     | 2     | 2      | 5      | 17     | 9     | 37    | 34     |
|                     | R        | 119    | 30     | 19     | < 1   | 14     | 9      | 139    | 124   | 311   | 246    |
| Winter flounder     | H        | 113    | 177    | < 1    | 72    | 16     | 37     | < 1    | < 1   | < 1   | < 1    |
|                     | R        | 168    | 120    | 15     | 28    | 3      | 10     | < 1    | 43    | 29    | 27     |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 New York State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 547,351 (6.9%)                      | 8,597,216 (6.5%)               | 603 (8.1%)                           | 911 (8%)                                    | 1,778                                     | 0.16                                 |

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

| Sector                                    | Statistic | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019 |
|---|-----------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Seafood product preparation and packaging | Firms     | 142    | 133    | 150    | 181    | 183    | 187    | 195    | 192    | NA   |
|   | Receipts  | 7,380  | 8,279  | 9,946  | 10,681 | 12,890 | 11,541 | 12,531 | 10,840 | NA   |
| Seafood sales, retail                     | Firms     | 183    | 205    | 197    | 188    | 172    | 161    | 179    | 157    | NA   |
|   | Receipts  | 16,286 | 16,714 | 15,923 | 14,369 | 13,299 | 12,089 | 13,667 | 15,754 | NA   |

Seafood Sales and Processing — Employer Establishments (thousands of dollars)<sup>2</sup>

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 18     | 17     | 17     | 17     | 17     | 18     | 16     | 15     | 14     |
|   | Employees      | 299    | 265    | 280    | ds     | 310    | 284    | 232    | 218    | 239    |
|   | Payroll        | 21,372 | 25,666 | 22,776 | 22,687 | 24,100 | 22,323 | 14,970 | 23,756 | 28,656 |
| Seafood Sales, Wholesale                  | Establishments | 291    | 243    | 264    | 270    | 275    | 286    | 259    | 252    | 258    |
|   | Employees      | 1,876  | 1,839  | 1,937  | 2,051  | 2,056  | 2,149  | 2,038  | 2,033  | 1,949  |
| Seafood sales, retail                     | Payroll        | 76,970 | 78,324 | 84,346 | 87,511 | 93,859 | 97,304 | 95,766 | 90,895 | 96,663 |
|   | Establishments | 391    | 385    | 399    | 401    | 409    | 406    | 385    | 383    | 370    |
|   | Employees      | 1,660  | 1,674  | 1,796  | 2,054  | 2,163  | 2,226  | 1,889  | 2,294  | 2,406  |
|   | Payroll        | 35,664 | 38,721 | 45,049 | 51,605 | 53,952 | 60,961 | 49,413 | 75,579 | 83,748 |

Transport, Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011    | 2012    | 2013   | 2014   | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|---------|---------|--------|--------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 43      | 49      | 45     | 42     | 42      | 38      | 38      | 38      | 35      |
|  | Employees      | 552     | 560     | ds     | ds     | 487     | 479     | 517     | 521     | 511     |
|  | Payroll        | 25,998  | 24,599  | 24,338 | 28,028 | 25,591  | 26,257  | 28,329  | 30,221  | 31,748  |
| Deep Sea Freight Transportation                | Establishments | 31      | 23      | 20     | 23     | 22      | 21      | 16      | 17      | 23      |
|  | Employees      | 752     | 214     | ds     | ds     | 174     | 212     | 208     | 244     | 330     |
|  | Payroll        | 88,354  | 31,229  | 22,691 | 19,387 | 26,452  | 19,416  | 28,951  | 48,632  | 39,541  |
| Deep Sea Passenger Transportation              | Establishments | 1       | 2       | 3      | 2      | 2       | 1       | NA      | NA      | NA      |
|  | Employees      | ds      | ds      | ds     | ds     | ds      | ds      | NA      | NA      | NA      |
|  | Payroll        | ds      | ds      | ds     | ds     | ds      | ds      | NA      | NA      | NA      |
| Coastal and Great Lakes Freight Transportation | Establishments | 62      | 42      | 59     | 72     | 73      | 73      | 70      | 69      | 71      |
|  | Employees      | 1,708   | ds      | ds     | ds     | 1,551   | 1,732   | 1,696   | 1,462   | 1,648   |
|  | Payroll        | 154,087 | ds      | ds     | ds     | 185,742 | 196,617 | 174,203 | 156,885 | 160,860 |
| Port and Harbor Operations                     | Establishments | 9       | 18      | 15     | 15     | 14      | 14      | 13      | 15      | 15      |
|  | Employees      | 33      | 1,294   | 196    | 168    | 230     | 205     | 257     | 318     | 290     |
|  | Payroll        | 1,493   | 105,325 | 12,358 | 10,342 | 13,774  | 15,087  | 14,868  | 25,882  | 26,831  |
| Marine Cargo Handling                          | Establishments | 12      | 6       | 9      | 12     | 11      | 9       | 7       | 6       | 9       |
|  | Employees      | 1,019   | ds      | 922    | 835    | 577     | 429     | 633     | 574     | 660     |
|  | Payroll        | 66,439  | ds      | 60,079 | 52,523 | 52,731  | 41,922  | 45,977  | 66,905  | 76,152  |
| Navigational Services to Shipping              | Establishments | 35      | 53      | 33     | 36     | 33      | 36      | 47      | 45      | 39      |
|  | Employees      | 596     | 712     | 687    | 722    | 695     | 709     | 933     | 945     | 944     |
|  | Payroll        | 54,406  | 63,334  | 68,141 | 74,395 | 73,699  | 76,693  | 99,475  | 97,292  | 84,566  |
| Marinas  | Establishments | 431     | 415     | 424    | 427    | 429     | 422     | 402     | 415     | 416     |
|  | Employees      | 2,033   | 1,868   | 1,907  | 1,986  | 1,930   | 1,950   | 1,883   | 1,955   | 1,875   |
|  | Payroll        | 96,408  | 87,124  | 93,212 | 95,900 | 99,181  | 102,523 | 95,528  | 102,012 | 104,163 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | Virginia



2020 Economic Impacts of the Virginia Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |           |         |             | Without Imports |         |         |             |
|--------------------------------------|--------------|-----------|---------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales     | Income  | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 24,880       | 3,234,096 | 832,729 | 1,278,891   | 14,802          | 976,067 | 374,523 | 505,782     |
| Commercial Harvesters                | 4,878        | 364,479   | 120,565 | 176,571     | 4,878           | 364,479 | 120,565 | 176,571     |
| Seafood Processors and Dealers       | 3,219        | 339,264   | 131,999 | 170,357     | 1,508           | 158,903 | 61,825  | 79,791      |
| Importers                            | 5,553        | 1,838,463 | 294,649 | 560,444     | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 1,491        | 217,246   | 75,101  | 100,092     | 511             | 74,456  | 25,739  | 34,304      |
| Retail                               | 9,739        | 474,644   | 210,416 | 271,427     | 7,905           | 378,229 | 166,394 | 215,116     |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 193,976 | 174,524 | 163,017 | 172,831 | 197,531 | 204,703 | 188,004 | 178,655 | 184,269 | 214,431 |
| Finfish             | 57,015  | 60,122  | 54,873  | 53,803  | 50,279  | 43,833  | 46,825  | 47,676  | 46,959  | 71,393  |
| Shellfish and Other | 136,961 | 114,402 | 108,144 | 119,028 | 147,252 | 160,869 | 141,179 | 130,979 | 137,310 | 143,038 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Atlantic croaker    | 4,571   | 7,534   | 6,247   | 4,186   | 4,059   | 3,071   | 2,705   | 2,893   | 861     | 223     |
| Black sea bass      | 1,003   | 1,401   | 1,716   | 1,365   | 1,607   | 2,071   | 2,074   | 1,829   | 2,011   | 1,079   |
| Blue crab           | 26,274  | 24,561  | 23,991  | 27,047  | 30,607  | 38,267  | 25,245  | 22,394  | 33,408  | 27,936  |
| Goosefish           | 752     | 1,217   | 920     | 654     | 516     | 401     | 170     | 150     | 121     | 29      |
| Menhaden            | 32,995  | 31,107  | 25,343  | 26,046  | 28,202  | 24,236  | 22,865  | 27,716  | 26,922  | 57,126  |
| Oysters             | 6,832   | 11,949  | 25,318  | 29,099  | 36,498  | 33,788  | 49,284  | 43,452  | 38,634  | 37,834  |
| Sea scallop         | 79,427  | 54,076  | 32,610  | 33,643  | 48,806  | 51,832  | 35,036  | 35,067  | 34,983  | 37,132  |
| Spot                | 3,431   | 770     | 2,406   | 5,763   | 2,263   | 449     | 3,439   | 1,034   | 2,523   | 3,125   |
| Striped bass        | 4,497   | 5,542   | 5,701   | 6,390   | 4,363   | 4,664   | 5,912   | 5,994   | 4,581   | 3,132   |
| Summer flounder     | 5,956   | 7,725   | 8,513   | 4,733   | 5,694   | 5,268   | 4,794   | 4,570   | 5,030   | 2,902   |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 496,582 | 462,442 | 381,577 | 389,164 | 408,157 | 361,966 | 338,613 | 362,794 | 392,372 | 321,861 |
| Finfish             | 440,920 | 415,617 | 344,094 | 352,340 | 372,922 | 320,514 | 302,063 | 327,036 | 350,774 | 288,360 |
| Shellfish and Other | 55,662  | 46,825  | 37,482  | 36,823  | 35,235  | 41,452  | 36,551  | 35,757  | 41,598  | 33,501  |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Atlantic croaker    | 5,569   | 6,940   | 6,325   | 4,814   | 4,506   | 3,934   | 2,892   | 2,440   | 909     | 177     |
| Black sea bass      | 275     | 392     | 496     | 388     | 422     | 553     | 745     | 606     | 646     | 522     |
| Blue crab           | 39,656  | 33,143  | 24,258  | 24,205  | 21,378  | 26,298  | 22,011  | 21,384  | 27,119  | 20,045  |
| Goosefish           | 604     | 907     | 846     | 587     | 445     | 366     | 216     | 203     | 176     | 75      |
| Menhaden            | 414,159 | 390,318 | 317,950 | 326,817 | 352,855 | 302,899 | 284,226 | 311,544 | 332,512 | 273,480 |
| Oysters             | 1,515   | 1,951   | 3,243   | 3,765   | 4,587   | 4,076   | 4,087   | 3,802   | 3,435   | 2,980   |
| Sea scallop         | 8,260   | 5,798   | 2,958   | 2,752   | 4,020   | 4,579   | 3,925   | 3,869   | 3,894   | 3,707   |
| Spot                | 3,741   | 613     | 2,085   | 3,983   | 1,457   | 275     | 1,635   | 601     | 1,186   | 1,536   |
| Striped bass        | 2,077   | 2,175   | 1,680   | 1,995   | 1,331   | 1,241   | 1,082   | 1,277   | 1,389   | 924     |
| Summer flounder     | 4,065   | 4,122   | 4,794   | 2,049   | 2,274   | 1,663   | 1,254   | 1,254   | 1,918   | 1,588   |

## Average Annual Price of Key Species/Species Groups (dollars per pound)

| Species          | 2011 | 2012 | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic croaker | 0.82 | 1.09 | 0.99  | 0.87  | 0.90  | 0.78  | 0.94  | 1.19  | 0.95  | 1.26  |
| Black sea bass   | 3.65 | 3.57 | 3.46  | 3.52  | 3.80  | 3.74  | 2.78  | 3.02  | 3.11  | 2.07  |
| Blue crab        | 0.66 | 0.74 | 0.99  | 1.12  | 1.43  | 1.46  | 1.15  | 1.05  | 1.23  | 1.39  |
| Goosefish        | 1.25 | 1.34 | 1.09  | 1.11  | 1.16  | 1.10  | 0.79  | 0.74  | 0.69  | 0.39  |
| Menhaden         | 0.08 | 0.08 | 0.08  | 0.08  | 0.08  | 0.08  | 0.08  | 0.09  | 0.08  | 0.21  |
| Oysters          | 4.51 | 6.12 | 7.81  | 7.73  | 7.96  | 8.29  | 12.06 | 11.43 | 11.25 | 12.69 |
| Sea scallop      | 9.62 | 9.33 | 11.02 | 12.23 | 12.14 | 11.32 | 8.93  | 9.06  | 8.98  | 10.02 |
| Spot             | 0.92 | 1.26 | 1.15  | 1.45  | 1.55  | 1.63  | 2.10  | 1.72  | 2.13  | 2.04  |
| Striped bass     | 2.16 | 2.55 | 3.39  | 3.20  | 3.28  | 3.76  | 5.46  | 4.69  | 3.30  | 3.39  |
| Summer flounder  | 1.47 | 1.87 | 1.78  | 2.31  | 2.50  | 3.17  | 3.82  | 3.64  | 2.62  | 1.83  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Virginia Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 144   | 14,107  | 4,699   | 8,352       |
| Private Boat                 | 1,133 | 131,680 | 46,346  | 84,984      |
| Shore                        | 2,171 | 243,930 | 92,141  | 160,354     |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 3,449 | 389,716 | 143,185 | 253,690     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 326,176    | 8,591    | 138,665      | 178,920 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 892  | 684  | 760  | 600  | 620  | 724  | 672  | 587  | NA   | NA   |
| Coastal       | 516  | 412  | 419  | 341  | 359  | 394  | 329  | 324  | NA   | NA   |
| Non-Coastal   | 56   | 78   | 74   | 53   | 59   | 86   | 80   | 45   | NA   | NA   |
| Out-of-State  | 320  | 193  | 267  | 206  | 203  | 244  | 263  | 218  | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 8,876 | 8,287 | 8,007 | 7,410 | 6,727 | 7,247 | 6,749 | 6,386 | 7,238 | 8,164 |
| For-Hire     | 31    | 45    | 59    | 53    | 66    | 39    | 43    | 25    | 37    | 31    |
| Private Boat | 4,256 | 3,646 | 3,399 | 3,079 | 2,451 | 2,660 | 2,548 | 2,215 | 2,651 | 2,639 |
| Shore        | 4,590 | 4,596 | 4,549 | 4,277 | 4,210 | 4,549 | 4,157 | 4,147 | 4,550 | 5,495 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2</sup>**

| Species          | Category | 2011   | 2012   | 2013   | 2014   | 2015  | 2016  | 2017   | 2018  | 2019  | 2020   |
|------------------|----------|--------|--------|--------|--------|-------|-------|--------|-------|-------|--------|
| Atlantic croaker | H        | 8,891  | 8,786  | 12,517 | 9,534  | 8,024 | 7,277 | 7,645  | 5,472 | 3,056 | 6,529  |
|                  | R        | 14,160 | 15,140 | 18,480 | 10,314 | 6,815 | 6,993 | 8,464  | 5,359 | 6,643 | 6,223  |
| Black sea bass   | H        | 36     | 13     | 46     | 78     | 66    | 81    | 97     | 87    | 231   | 275    |
|                  | R        | 1,170  | 1,961  | 1,506  | 1,962  | 647   | 1,869 | 2,272  | 1,472 | 1,903 | 2,361  |
| Cobia            | H        | 13     | 1      | 24     | 22     | 39    | 44    | 15     | 81    | 56    | 50     |
|                  | R        | 27     | 17     | 36     | 58     | 41    | 81    | 77     | 195   | 185   | 147    |
| Red drum         | H        | 0      | 91     | 334    | 252    | 22    | 16    | 347    | 6     | 206   | 214    |
|                  | R        | 157    | 8,323  | 577    | 1,109  | 79    | 165   | 1,723  | 85    | 866   | 716    |
| Spot             | H        | 10,129 | 10,148 | 11,734 | 13,653 | 1,731 | 5,279 | 15,944 | 7,361 | 7,647 | 14,963 |
|                  | R        | 7,291  | 6,371  | 7,549  | 4,125  | 1,897 | 2,858 | 3,336  | 3,043 | 4,510 | 5,157  |
| Spotted seatrout | H        | 644    | 392    | 154    | 85     | 23    | 164   | 172    | 190   | 596   | 592    |
|                  | R        | 3,463  | 1,257  | 738    | 1,059  | 834   | 3,709 | 3,155  | 4,455 | 2,866 | 2,831  |
| Striped bass     | H        | 328    | 258    | 302    | 131    | 208   | 138   | 108    | 57    | 45    | 52     |
|                  | R        | 389    | 289    | 503    | 738    | 1,709 | 1,638 | 1,338  | 1,247 | 655   | 929    |
| Summer flounder  | H        | 659    | 678    | 560    | 439    | 334   | 212   | 188    | 146   | 150   | 144    |
|                  | R        | 4,449  | 2,658  | 1,510  | 2,230  | 1,718 | 567   | 1,610  | 874   | 2,300 | 1,413  |
| Tautog           | H        | 153    | 66     | 20     | 87     | 24    | 40    | 22     | 8     | 27    | 63     |
|                  | R        | 110    | 61     | 54     | 197    | 46    | 144   | 76     | 73    | 75    | 114    |
| Weakfish         | H        | 19     | 46     | 4      | 32     | 10    | 38    | 14     | 6     | 38    | 17     |
|                  | R        | 744    | 274    | 205    | 375    | 232   | 1,467 | 455    | 234   | 817   | 317    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.

2019 Virginia State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 203,467 (2.6%)                      | 3,455,993 (2.6%)               | 197 (2.7%)                           | 321 (2.8%)                                  | 554                                       | 1.03                                 |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013 | 2014 | 2015 | 2016 | 2017  | 2018 | 2019 |
|---|-----------|-------|-------|------|------|------|------|-------|------|------|
| Seafood product preparation and packaging | Firms     | ds    | ds    | ds   | ds   | ds   | 3    | 5     | 9    | NA   |
|   | Receipts  | ds    | ds    | ds   | ds   | ds   | 558  | 458   | 786  | NA   |
| Seafood sales, retail                     | Firms     | 9     | 11    | 8    | 13   | 11   | 11   | 12    | 11   | NA   |
|   | Receipts  | 1,226 | 1,333 | 520  | 452  | 479  | 608  | 2,868 | 914  | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 18     | 19     | 18     | 20     | 17     | 18     | 21     | 20     | 19     |
|   | Employees      | 899    | 919    | 781    | 804    | 790    | 790    | 839    | 869    | 910    |
|   | Payroll        | 33,285 | 32,955 | 30,682 | 29,763 | 31,614 | 32,991 | 46,474 | 48,483 | 42,110 |
| Seafood Sales, Wholesale                  | Establishments | 62     | 64     | 70     | 65     | 65     | 60     | 58     | 57     | 52     |
|   | Employees      | 469    | 492    | 483    | 448    | 444    | 457    | 379    | 363    | 316    |
|   | Payroll        | 15,733 | 14,271 | 14,719 | 14,769 | 16,089 | 16,115 | 16,872 | 15,082 | 14,598 |
| Seafood sales, retail                     | Establishments | 58     | 51     | 55     | 57     | 59     | 56     | 56     | 58     | 62     |
|   | Employees      | 277    | 280    | 254    | 224    | 279    | 247    | 215    | 210    | 225    |
|   | Payroll        | 5,453  | 5,563  | 5,526  | 5,537  | 6,641  | 7,255  | 6,222  | 6,262  | 6,247  |

Transport, Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015      | 2016      | 2017      | 2018      | 2019      |
|--|----------------|--------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|
| Ship and Boat Building                         | Establishments | 51     | 59     | 54     | 56     | 54        | 60        | 53        | 58        | 61        |
|  | Employees      | ds     | ds     | ds     | ds     | 30,622    | 30,387    | 27,924    | 29,074    | 29,507    |
|  | Payroll        | ds     | ds     | ds     | ds     | 1,955,354 | 1,922,736 | 1,817,205 | 2,000,127 | 2,135,838 |
| Deep Sea Freight Transportation                | Establishments | 21     | 19     | 12     | 12     | 12        | 14        | 13        | 12        | 17        |
|  | Employees      | 492    | ds     | ds     | ds     | 254       | 301       | 270       | 322       | 503       |
|  | Payroll        | 42,018 | ds     | ds     | ds     | 33,057    | 38,674    | 34,928    | 35,942    | 73,896    |
| Deep Sea Passenger Transportation              | Establishments | 2      | 1      | 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        |
| Coastal and Great Lakes Freight Transportation | Establishments | 7      | 12     | 11     | 12     | 10        | 12        | 12        | 12        | 12        |
|  | Employees      | ds     | ds     | 177    | 152    | 186       | 325       | 387       | 447       | 476       |
|  | Payroll        | ds     | ds     | 10,077 | 9,264  | 11,951    | 18,059    | 24,801    | 28,640    | 30,942    |
| Port and Harbor Operations                     | Establishments | 6      | 13     | 14     | 15     | 14        | 13        | 14        | 15        | 16        |
|  | Employees      | ds     | ds     | ds     | ds     | 1,922     | 2,167     | 2,052     | 2,114     | 2,208     |
|  | Payroll        | ds     | ds     | ds     | ds     | 132,983   | 125,111   | 144,903   | 156,178   | 147,866   |
| Marine Cargo Handling                          | Establishments | 11     | 6      | 8      | 8      | 8         | 8         | 6         | 7         | 7         |
|  | Employees      | ds     | ds     | ds     | ds     | ds        | 805       | 751       | 829       | 865       |
|  | Payroll        | 41,262 | ds     | ds     | ds     | ds        | 50,903    | 54,946    | 61,037    | 59,047    |
| Navigational Services to Shipping              | Establishments | 21     | 20     | 18     | 20     | 20        | 18        | 26        | 28        | 29        |
|  | Employees      | 419    | 428    | 303    | 322    | 302       | 294       | 314       | 332       | 338       |
|  | Payroll        | 22,132 | 25,732 | 20,283 | 21,348 | 20,746    | 19,600    | 21,965    | 23,293    | 24,086    |
| Marinas  | Establishments | 110    | 105    | 113    | 107    | 108       | 103       | 96        | 102       | 107       |
|  | Employees      | 818    | 673    | 840    | 814    | 818       | 821       | 636       | 773       | 817       |
|  | Payroll        | 23,379 | 18,874 | 24,468 | 24,436 | 25,146    | 25,777    | 19,270    | 25,297    | 27,237    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# South Atlantic Region

- East Florida
- Georgia
- North Carolina
- South Carolina



Charter fishing off the coast of Fort Lauderdale, Florida.  
Photo: NOAA Fisheries/Jacqui Fenner



## 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 2020: 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 2020: red snapper (South Atlantic stock); speckled hind; Warsaw grouper; red porgy — South Atlantic (added in 2020); and golden tilefish — South Atlantic stock (added in 2020). Greater amberjack — Southern Atlantic Coast and red grouper — South Atlantic were removed from the overfishing list in 2020.

## 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.

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.<sup>1,2</sup>

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 2020, the commercial fishing and seafood industry in Florida generated the largest employment impacts in the South Atlantic region with 76,685 full- and part-time jobs. Florida also generated the largest sales impacts (\$18.5 billion), value-added impacts (\$6.2 billion), and income impacts (\$3.5 billion).

## Landings Revenue

In 2020, landings revenue in the South Atlantic Region totaled \$183.3 million, a 5% increase from 2011 (a 9% decrease in real terms after adjusting for inflation) and a 9% decrease from 2019. Landings revenue was highest in North Carolina (\$78.2 million), followed by East Florida (\$57 million).

Shellfish and other landings revenue accounted for 72% of all landings revenue. In 2020, shrimp (\$68.7 million), blue crab (\$37.5 million), and oysters (\$8 million) had the highest landings revenue in this region. Together,

these top three species accounted for 62% of total landings revenue.

From 2011 to 2020, shrimp (28%, 10% in real terms), tunas (27%, 10% in real terms), and oysters (16%, 0.6% in real terms) had the largest increases, while clams (-71%, -75% in real terms), flounders (-46%, -53% in real terms), and swordfish (-39%, -47% in real terms) had the largest decreases. From 2019 to 2020, tunas (15%) had the largest increases, while clams (-65%), flounders (-52%), and snappers (-13%) had the largest decreases.

### Commercial Revenue: Largest Increases

*From 2011:*

- Shrimp (28%, 10% in real terms)
- Tunas (27%, 10% in real terms)
- Oysters (16%, 0.6% in real terms)

*From 2019:*

- Tunas (15%)

### Commercial Revenue: Largest Decreases

*From 2011:*

- Clams (-71%, -75% in real terms)
- Flounders (-46%, -53% in real terms)
- Swordfish (-39%, -47% in real terms)

*From 2019:*

- Clams (-65%)
- Flounders (-52%)
- Snappers (-13%)

## Landings

In 2020, South Atlantic Region commercial fishermen landed over 106.3 million pounds of finfish and shellfish. This represents a 16% decrease from 2011 and a 15% decrease from 2019. Shrimp contributed the highest landings volume in the region, accounting for 40% of total landing weight.

From 2011 to 2020, shrimp (85%) and tunas (14%) had the largest increases, while clams (-84%), oysters (-52%), and flounders (-46%) had the largest decreases. From 2019 to 2020, tunas (30%) had the largest increases, while clams (-73%), blue crab (-31%), and flounders (-20%) had the largest decreases.

<sup>1</sup> 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](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).]

<sup>2</sup> Commercial economic impacts data were not available for East Florida specifically; data for the entire state of Florida are reported here.

**Commercial Landings: Largest Increases**

From 2011:

- Shrimp (85%)
- Tunas (14%,)
- From 2019:
- Tunas (30%)

**Commercial Landings: Largest Decreases**

From 2011:

- Clams (-84%)
- Oysters (-52%)
- Flounders (-46%)

From 2019:

- Clams (-73%)
- Blue crab (-31%)
- Flounders (-20%)

**Prices**

In 2020, oysters (\$13.48 per pound) received the highest ex-vessel price in the region. Landings of shrimp (\$1.62 per pound) had the lowest ex-vessel price. From 2011 to 2020, oysters (143%, 110% in real terms), blue crab (100%, 73% in real terms), and clams (87%, 61% in real terms) had the largest increases, while shrimp (-31%, -40% in real terms) and swordfish (-6%, -19% in real terms) had the largest decreases. From 2019 to 2020, blue crab (33%), clams (28%), and swordfish (10%) had the largest increases, while flounders (-40%) and tunas (-11%) 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.<sup>3</sup>

**Key South Atlantic Region Recreational Species<sup>4</sup>**

- Atlantic croaker and spot
- Black sea bass
- Bluefish
- Dolphinfish
- King mackerel
- Red drum
- Sharks<sup>5</sup>
- 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.<sup>6</sup> 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 2020 were estimated using IMPLAN

<sup>3</sup> Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.

<sup>4</sup> 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.

<sup>5</sup> Atlantic sharpnose shark, blacktip shark, requiem shark, requiem shark family, requiem shark genus, shark species, and unidentified (sharks).

<sup>6</sup> 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.]

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 2020 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the South Atlantic Region were generated in North Carolina (15,214 jobs), followed by East Florida (14,557 jobs) and South Carolina (6,560 jobs). The largest sales impacts were observed in North Carolina (\$1.6 billion), followed by East Florida (\$1.5 billion) and South Carolina (\$604.5 million). The biggest income impacts were generated in North Carolina (\$553.8 million), followed by East Florida (\$519.7 million) and South Carolina (\$199.9 million). The greatest value-added impacts were in East Florida (\$1 billion), followed by North Carolina (\$955.9 million) and South Carolina (\$382 million).

A large portion of the approximately 3.2 billion in trip expenses came from trips in the shore (63%) and private boat (31.2%) sectors.

## Participation

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

## Fishing Trips

In 2020, recreational fishermen took 70.5 million fishing trips in the South Atlantic Region. This number represented an 8% decrease from 2011 and a 2% increase from 2019. The largest proportions of trips were taken in the shore mode (67%) and private boat (32%). States with the highest number of recorded trips in the South Atlantic Region were East Florida (40.4 million trips) and North Carolina (16.4 million trips).

## Harvest and Release Trends

Of the South Atlantic Region's key species and species groups, Atlantic croaker and spot (30.2 million fish), spotted seatrout (19.5 million fish), and bluefish (18.3 million fish) were most frequently caught by recreational fishermen. The following text box shows the species with the largest percentage increases and decreases in the past 10 years and in the past year.

From 2011 to 2020, Spanish mackerel (163%), king mackerel (141%), and sheepshead (37%) had the largest increases, while dolphinfish (-56%), black sea bass (-43%), and sharks (-28%) had the largest decreases. From 2019 to 2020, Spanish mackerel (55%), sheepshead (45%), and sharks (11%) had the largest increases, while dolphinfish (-46%), black sea bass (-24%), and red drum (-22%) had the largest decreases.

### Harvest and Release: Largest Increases

*From 2011:*

- Spanish mackerel (163%)
- King mackerel (141%)
- Sheepshead (37%)

*From 2019:*

- Spanish mackerel (55%)
- Sheepshead (45%)
- Sharks (11%)

### Harvest and Release: Largest Decreases

*From 2011:*

- Dolphinfish (-56%)
- Black sea bass (-43%)
- Sharks (-28%)

*From 2019:*

- Dolphinfish (-46%)
- Black sea bass (-24%)
- Red drum (-22%)

## 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.<sup>7</sup>

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

<sup>7</sup> 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/USAGDPDEFSAISMEI>).

state's economy relative to the size of the commercial fishing sector in the national economy.<sup>8</sup> 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 0.1.

In 2019, 1.2 million employer establishments operated throughout the entire South Atlantic Region (including marine and non-marine related establishments). These establishments employed 18.8 million workers and had a total annual payroll of \$917.8 billion. The combined gross state product of East Florida, Georgia, North Carolina, and South Carolina was approximately \$2.6 trillion in 2019.

## Seafood Sales and Processing<sup>9</sup>

**Seafood Product Preparation and Packaging:** In 2019, the South Atlantic Region had 44 employer firms in the seafood product preparation and packaging sector (remains unchanged from 2011). The greatest number of establishments in this sector was in East Florida (25), followed by North Carolina (12) and Georgia (7).

**Retail Seafood Sales:** In 2019, there were 391 employer firms in the seafood retail sector in the South Atlantic Region (a 15% increase from 2011). The greatest number of establishments in this sector was in East Florida (170), followed by North Carolina (97) and Georgia (73).

**Wholesale Seafood Sales:** There were 332 employer firms in the seafood wholesale sector in the South Atlantic Region in 2019 (a 6% decrease from 2011). The greatest number of establishments in this sector was in East Florida (241), followed by North Carolina (49) and Georgia (25).

## 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 2019, the ship and boat building sector in the South Atlantic Region accounted for \$1.5 billion in payroll. The deep sea passenger transportation sector in Florida alone accounted for \$1.1 billion in payroll in 2019.

<sup>8</sup> U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

<sup>9</sup> This report has provided economic statistics (number of firms and annual receipts) for non-employer firms in the seafood sales and processing sectors in previous volumes. Currently, this information is not available from the Census Bureau for 2019.

# Tables | South Atlantic Region



2020 Economic Impacts of the South Atlantic Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| State          | Landings Revenue | With Imports |            |           |             | Without Imports |         |         |             |
|----------------|------------------|--------------|------------|-----------|-------------|-----------------|---------|---------|-------------|
|                |                  | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales   | Income  | Value Added |
| Florida        | 212,358          | 76,685       | 18,501,239 | 3,451,325 | 6,179,998   | 8,231           | 863,421 | 226,859 | 348,384     |
| Georgia        | 21,883           | 19,321       | 3,246,416  | 716,545   | 1,181,394   | 2,431           | 134,384 | 52,798  | 71,833      |
| North Carolina | 78,152           | 7,604        | 817,990    | 222,610   | 335,853     | 4,613           | 270,974 | 110,649 | 147,112     |
| South Carolina | 26,214           | 1,623        | 139,133    | 46,090    | 65,209      | 1,385           | 88,717  | 36,194  | 48,219      |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 174,705 | 176,455 | 166,948 | 193,572 | 199,981 | 193,303 | 203,996 | 176,725 | 201,349 | 183,299 |
| Finfish             | 57,159  | 56,582  | 55,043  | 57,158  | 51,133  | 51,522  | 55,728  | 51,033  | 54,371  | 52,023  |
| Shellfish and Other | 117,546 | 119,873 | 111,905 | 136,414 | 148,848 | 141,782 | 148,268 | 125,692 | 146,978 | 131,276 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Blue crab           | 34,422  | 38,018  | 44,563  | 47,048  | 46,536  | 37,677  | 37,550  | 35,150  | 40,753  | 37,497  |
| Clams               | 3,804   | 3,801   | 3,054   | 3,559   | 8,013   | 5,857   | 4,847   | 4,432   | 3,192   | 1,117   |
| Flounders           | 9,530   | 8,014   | 7,538   | 13,495  | 13,133  | 12,428  | 12,255  | 10,969  | 10,800  | 5,163   |
| Groupers            | 3,802   | 3,445   | 3,385   | 3,474   | 3,190   | 2,564   | 2,728   | 2,936   | 3,129   | 2,920   |
| King mackerels      | 6,614   | 5,569   | 5,242   | 5,831   | 5,623   | 6,291   | 7,408   | 7,037   | 7,721   | 7,550   |
| Oysters             | 6,852   | 5,492   | 6,080   | 7,209   | 16,536  | 7,234   | 8,610   | 7,197   | 9,038   | 7,980   |
| Shrimp              | 53,765  | 55,002  | 39,023  | 50,967  | 51,568  | 67,249  | 76,514  | 58,875  | 71,871  | 68,735  |
| Snappers            | 3,897   | 4,214   | 3,890   | 4,037   | 3,564   | 3,426   | 3,737   | 3,937   | 4,777   | 4,149   |
| Swordfish           | 10,031  | 9,536   | 8,435   | 6,858   | 5,910   | 5,765   | 5,184   | 5,565   | 6,463   | 6,108   |
| Tunas               | 5,162   | 7,053   | 6,107   | 7,053   | 5,673   | 5,003   | 7,260   | 6,300   | 5,687   | 6,549   |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 126,496 | 111,388 | 103,238 | 115,313 | 115,535 | 108,134 | 119,846 | 107,277 | 124,643 | 106,255 |
| Finfish             | 44,762  | 36,867  | 34,379  | 39,890  | 33,811  | 31,427  | 31,248  | 29,050  | 30,622  | 29,408  |
| Shellfish and Other | 81,735  | 74,522  | 68,859  | 75,422  | 81,724  | 76,706  | 88,598  | 78,227  | 94,021  | 76,847  |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Blue crab           | 42,564  | 40,721  | 33,042  | 34,392  | 40,593  | 35,251  | 30,008  | 27,440  | 33,518  | 23,172  |
| Clams               | 630     | 661     | 472     | 529     | 887     | 775     | 702     | 609     | 361     | 99      |
| Flounders           | 4,355   | 2,963   | 2,890   | 4,734   | 4,179   | 3,145   | 3,052   | 2,629   | 2,944   | 2,357   |
| Groupers            | 953     | 859     | 787     | 762     | 675     | 537     | 546     | 571     | 599     | 547     |
| King mackerels      | 3,048   | 2,457   | 1,913   | 2,381   | 2,267   | 2,634   | 3,113   | 2,729   | 3,204   | 2,909   |
| Oysters             | 1,233   | 903     | 1,038   | 1,152   | 1,053   | 1,073   | 720     | 575     | 675     | 592     |
| Shrimp              | 22,960  | 22,760  | 14,132  | 15,894  | 23,289  | 29,992  | 38,531  | 32,115  | 44,588  | 42,541  |
| Snappers            | 1,295   | 1,349   | 1,221   | 1,191   | 1,042   | 973     | 1,033   | 1,045   | 1,247   | 1,044   |
| Swordfish           | 2,721   | 2,734   | 2,466   | 1,629   | 1,731   | 1,695   | 1,456   | 1,688   | 2,049   | 1,767   |
| Tunas               | 2,234   | 2,496   | 2,390   | 2,721   | 2,069   | 2,140   | 2,617   | 1,991   | 1,956   | 2,539   |

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

| Species        | 2011 | 2012 | 2013 | 2014 | 2015  | 2016 | 2017  | 2018  | 2019  | 2020  |
|----------------|------|------|------|------|-------|------|-------|-------|-------|-------|
| Blue crab      | 0.81 | 0.93 | 1.35 | 1.37 | 1.15  | 1.07 | 1.25  | 1.28  | 1.22  | 1.62  |
| Clams          | 6.04 | 5.75 | 6.47 | 6.73 | 9.03  | 7.56 | 6.91  | 7.28  | 8.83  | 11.28 |
| Flounders      | 2.19 | 2.70 | 2.61 | 2.85 | 3.14  | 3.95 | 4.02  | 4.17  | 3.67  | 2.19  |
| Groupers       | 3.99 | 4.01 | 4.30 | 4.56 | 4.73  | 4.78 | 5.00  | 5.15  | 5.23  | 5.33  |
| King mackerels | 2.17 | 2.27 | 2.74 | 2.45 | 2.48  | 2.39 | 2.38  | 2.58  | 2.41  | 2.60  |
| Oysters        | 5.56 | 6.08 | 5.86 | 6.26 | 15.71 | 6.74 | 11.96 | 12.51 | 13.38 | 13.48 |
| Shrimp         | 2.34 | 2.42 | 2.76 | 3.21 | 2.21  | 2.24 | 1.99  | 1.83  | 1.61  | 1.62  |
| Snappers       | 3.01 | 3.12 | 3.19 | 3.39 | 3.42  | 3.52 | 3.62  | 3.77  | 3.83  | 3.97  |
| Swordfish      | 3.69 | 3.49 | 3.42 | 4.21 | 3.41  | 3.40 | 3.56  | 3.30  | 3.15  | 3.46  |
| Tunas          | 2.31 | 2.83 | 2.55 | 2.59 | 2.74  | 2.34 | 2.77  | 3.16  | 2.91  | 2.58  |

<sup>1</sup> The information for Florida in this Economic Impacts table is for the entire state. Data for the remaining commercial tables pertain only to East Florida.

2020 Economic Impacts of the South Atlantic Recreational Fishing (thousands of dollars; number of jobs)

| State          | Trips  | Jobs   | Sales     | Income  | Value Added |
|----------------|--------|--------|-----------|---------|-------------|
| East Florida   | 40,436 | 14,557 | 1,531,787 | 519,740 | 1,025,753   |
| Georgia        | 4,890  | 2,922  | 255,841   | 83,872  | 160,501     |
| North Carolina | 16,399 | 15,214 | 1,582,090 | 553,845 | 955,941     |
| South Carolina | 8,734  | 6,560  | 604,516   | 199,851 | 382,026     |

2020 Angler Trip Expenditures (thousands of dollars)

| Total Trip | For-Hire | Private Boat | Shore     |
|------------|----------|--------------|-----------|
| 3,178,719  | 184,108  | 993,197      | 2,001,414 |

Recreational Anglers by Residential Area (thousands of anglers)<sup>1,2</sup>

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Total Anglers | 2,343 | 2,637 | 2,488 | 2,719 | 2,229 | 2,345 | 2,151 | 2,419 | NA   | NA   |
| Coastal       | 1,893 | 2,135 | 2,092 | 2,189 | 1,753 | 1,873 | 1,750 | 1,954 | NA   | NA   |
| Non-Coastal   | 450   | 502   | 396   | 530   | 475   | 472   | 401   | 465   | NA   | NA   |

Recreational Fishing Effort by Mode (thousands of angler trips)

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 76,674 | 69,334 | 68,513 | 75,410 | 75,824 | 73,109 | 76,914 | 75,101 | 69,329 | 70,459 |
| For-Hire     | 360    | 362    | 392    | 448    | 508    | 540    | 560    | 523    | 578    | 579    |
| Private Boat | 23,391 | 20,786 | 20,495 | 22,194 | 21,753 | 21,252 | 21,506 | 22,890 | 20,754 | 22,837 |
| Shore        | 52,923 | 48,186 | 47,627 | 52,768 | 53,562 | 51,317 | 54,849 | 51,687 | 47,997 | 47,044 |

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>3</sup>

| Species                   | Category | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Atlantic croaker and spot | H        | 15,301 | 11,548 | 14,762 | 17,704 | 18,413 | 12,502 | 7,209  | 6,247  | 6,768  | 5,538  |
|                           | R        | 19,797 | 15,980 | 25,015 | 29,222 | 24,075 | 24,625 | 14,655 | 15,454 | 15,111 | 24,690 |
| Black sea bass            | H        | 933    | 687    | 629    | 1,113  | 727    | 553    | 620    | 351    | 417    | 271    |
|                           | R        | 10,197 | 11,658 | 7,259  | 15,547 | 11,307 | 10,161 | 11,526 | 5,967  | 7,897  | 6,078  |
| Bluefish                  | H        | 10,637 | 5,949  | 8,448  | 8,571  | 7,176  | 7,116  | 5,525  | 6,213  | 6,022  | 6,551  |
|                           | R        | 18,670 | 12,110 | 19,009 | 13,887 | 14,742 | 13,232 | 13,106 | 12,898 | 16,901 | 11,767 |
| Dolphinfish               | H        | 1,421  | 1,436  | 1,142  | 1,618  | 2,255  | 1,345  | 1,666  | 1,807  | 1,196  | 839    |
|                           | R        | 885    | 246    | 448    | 701    | 889    | 131    | 629    | 504    | 684    | 170    |
| King mackerel             | H        | 302    | 254    | 236    | 298    | 323    | 526    | 637    | 681    | 789    | 589    |
|                           | R        | 104    | 97     | 78     | 199    | 144    | 123    | 323    | 285    | 332    | 387    |
| Red drum                  | H        | 1,518  | 1,422  | 2,048  | 1,958  | 1,585  | 2,010  | 2,256  | 2,239  | 1,302  | 1,444  |
|                           | R        | 6,767  | 8,857  | 9,458  | 8,787  | 7,835  | 9,806  | 10,164 | 9,644  | 10,784 | 7,939  |
| Sharks                    | H        | 59     | 65     | 151    | 137    | 45     | 162    | 34     | 25     | 121    | 68     |
|                           | R        | 6,357  | 6,689  | 12,893 | 8,491  | 10,102 | 6,926  | 4,522  | 4,879  | 4,047  | 4,539  |
| Sheepshead                | H        | 2,357  | 1,630  | 2,056  | 2,658  | 1,572  | 2,415  | 1,885  | 2,604  | 1,671  | 2,140  |
|                           | R        | 2,089  | 2,805  | 2,288  | 3,474  | 3,177  | 2,944  | 2,536  | 3,525  | 2,511  | 3,937  |
| Spanish mackerel          | H        | 2,644  | 2,034  | 3,764  | 2,577  | 1,461  | 2,866  | 1,741  | 2,309  | 3,288  | 5,837  |
|                           | R        | 1,411  | 1,164  | 2,708  | 1,878  | 1,060  | 2,017  | 1,460  | 2,944  | 3,597  | 4,821  |
| Spotted seatrout          | H        | 2,611  | 5,115  | 3,608  | 2,821  | 1,805  | 3,543  | 3,904  | 2,804  | 4,379  | 4,074  |
|                           | R        | 17,352 | 18,486 | 13,513 | 14,324 | 13,867 | 15,163 | 15,380 | 23,720 | 16,410 | 15,396 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> East Florida anglers estimates are not available for the non-coastal category.

<sup>3</sup> 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



**2020 Economic Impacts of the Florida Seafood Industry (thousands of dollars; number of jobs)<sup>1,2</sup>**

| Sector                               | With Imports |            |           |             | Without Imports |         |         |             |
|--------------------------------------|--------------|------------|-----------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 76,685       | 18,501,239 | 3,451,325 | 6,179,998   | 8,231           | 863,421 | 226,859 | 348,384     |
| Commercial Harvesters                | 5,361        | 423,022    | 131,375   | 175,246     | 5,361           | 423,022 | 131,375 | 175,246     |
| Seafood Processors and Dealers       | 4,466        | 860,979    | 166,625   | 327,569     | 440             | 91,060  | 17,623  | 34,645      |
| Importers                            | 40,872       | 13,532,605 | 2,168,858 | 4,125,331   | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 9,853        | 1,350,774  | 530,309   | 659,774     | 362             | 49,672  | 19,501  | 24,262      |
| Retail                               | 16,134       | 2,333,859  | 454,157   | 892,078     | 2,067           | 299,668 | 58,359  | 114,231     |

**Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)<sup>2</sup>**

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 62,356 | 61,144 | 50,464 | 58,154 | 52,339 | 56,962 | 64,096 | 58,503 | 64,502 | 57,049 |
| Finfish             | 25,921 | 25,929 | 23,897 | 26,663 | 23,302 | 22,818 | 23,027 | 23,441 | 24,854 | 22,141 |
| Shellfish and Other | 36,434 | 35,215 | 26,567 | 31,492 | 29,037 | 34,144 | 41,069 | 35,062 | 39,648 | 34,909 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Blue crab           | 4,699  | 5,172  | 4,220  | 3,402  | 3,641  | 3,793  | 4,682  | 4,325  | 4,957  | 4,924  |
| Clams               | 287    | 145    | 46     | 61     | 58     | 32     | NA     | 1      | NA     | NA     |
| Groupers            | 631    | 906    | 744    | 799    | 883    | 685    | 674    | 729    | 674    | 638    |
| King mackerel       | 5,534  | 4,695  | 4,348  | 4,585  | 4,805  | 5,314  | 6,058  | 5,831  | 6,097  | 6,051  |
| Lobsters            | 3,213  | 1,891  | 3,442  | 5,152  | 3,736  | 3,032  | 1,966  | 3,580  | 2,631  | 2,957  |
| Sharks              | 355    | 299    | 383    | 508    | 573    | 425    | 529    | 386    | 229    | 165    |
| Shrimp              | 24,536 | 21,969 | 14,354 | 18,312 | 16,353 | 22,601 | 29,967 | 23,495 | 28,167 | 23,863 |
| Snappers            | 1,808  | 1,979  | 1,898  | 2,224  | 1,700  | 1,381  | 1,624  | 1,609  | 1,973  | 1,683  |
| Spanish mackerel    | 2,687  | 2,463  | 2,678  | 2,652  | 2,171  | 2,534  | 2,760  | 2,918  | 2,834  | 2,668  |
| Swordfish           | 3,785  | 4,420  | 3,129  | 3,819  | 2,607  | 2,637  | 1,917  | 2,805  | 3,527  | 2,524  |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 33,399 | 30,893 | 24,038 | 24,973 | 25,288 | 28,745 | 36,749 | 35,053 | 45,476 | 41,272 |
| Finfish             | 16,050 | 14,296 | 12,509 | 13,581 | 12,163 | 12,068 | 12,027 | 12,328 | 12,559 | 11,135 |
| Shellfish and Other | 17,349 | 16,597 | 11,529 | 11,392 | 13,125 | 16,678 | 24,722 | 22,726 | 32,917 | 30,136 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Blue crab           | 3,663  | 3,769  | 2,491  | 1,659  | 1,783  | 1,901  | 2,501  | 2,013  | 2,311  | 2,309  |
| Clams               | 38     | 18     | 7      | 8      | 8      | 3      | NA     | 0      | NA     | NA     |
| Groupers            | 158    | 226    | 178    | 179    | 187    | 142    | 137    | 141    | 129    | 127    |
| King mackerel       | 2,633  | 2,145  | 1,562  | 1,812  | 1,859  | 2,162  | 2,438  | 2,191  | 2,481  | 2,284  |
| Lobsters            | 515    | 337    | 486    | 543    | 481    | 394    | 256    | 528    | 344    | 435    |
| Sharks              | 698    | 577    | 631    | 463    | 554    | 249    | 442    | 296    | 168    | 204    |
| Shrimp              | 10,531 | 9,208  | 5,316  | 5,808  | 7,072  | 10,601 | 19,002 | 17,305 | 27,733 | 24,710 |
| Snappers            | 612    | 645    | 623    | 670    | 506    | 407    | 447    | 415    | 506    | 419    |
| Spanish mackerel    | 3,433  | 2,597  | 2,265  | 2,585  | 1,808  | 2,461  | 2,673  | 2,926  | 3,005  | 2,571  |
| Swordfish           | 1,004  | 1,218  | 782    | 778    | 753    | 722    | 521    | 811    | 1,016  | 667    |

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

| Species          | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018  | 2019 | 2020 |
|------------------|------|------|------|------|------|------|------|-------|------|------|
| Blue crab        | 1.28 | 1.37 | 1.69 | 2.05 | 2.04 | 1.99 | 1.87 | 2.15  | 2.15 | 2.13 |
| Clams            | 7.62 | 7.97 | 6.35 | 7.62 | 7.48 | 9.83 | NA   | 11.19 | NA   | NA   |
| Groupers         | 3.99 | 4.01 | 4.18 | 4.46 | 4.71 | 4.80 | 4.91 | 5.17  | 5.22 | 5.02 |
| King mackerel    | 2.10 | 2.19 | 2.78 | 2.53 | 2.58 | 2.46 | 2.48 | 2.66  | 2.46 | 2.65 |
| Lobsters         | 6.24 | 5.60 | 7.08 | 9.48 | 7.76 | 7.70 | 7.68 | 6.78  | 7.65 | 6.79 |
| Sharks           | 0.51 | 0.52 | 0.61 | 1.10 | 1.03 | 1.71 | 1.20 | 1.30  | 1.37 | 0.81 |
| Shrimp           | 2.33 | 2.39 | 2.70 | 3.15 | 2.31 | 2.13 | 1.58 | 1.36  | 1.02 | 0.97 |
| Snappers         | 2.96 | 3.07 | 3.04 | 3.32 | 3.36 | 3.40 | 3.63 | 3.88  | 3.90 | 4.02 |
| Spanish mackerel | 0.78 | 0.95 | 1.18 | 1.03 | 1.20 | 1.03 | 1.03 | 1.00  | 0.94 | 1.04 |
| Swordfish        | 3.77 | 3.63 | 4.00 | 4.91 | 3.46 | 3.65 | 3.68 | 3.46  | 3.47 | 3.78 |

<sup>1</sup> The information for Florida in this Economic Impacts table is for the entire state. Data for the remaining commercial tables pertain only to East Florida.

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of East Florida Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs   | Sales     | Income  | Value Added |
|------------------------------|--------|-----------|---------|-------------|
| For-Hire                     | 906    | 97,791    | 34,457  | 58,271      |
| Private Boat                 | 5,189  | 547,153   | 181,177 | 366,729     |
| Shore                        | 8,463  | 886,843   | 304,107 | 600,753     |
| Total Durable Expenditures   | NA     | NA        | NA      | NA          |
| Total State Economic Impacts | 14,557 | 1,531,787 | 519,740 | 1,025,753   |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 1,313,541  | 55,719   | 553,607      | 704,214 |

**Recreational Anglers by Residential Area (thousands of anglers)<sup>2</sup>**

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Total Anglers | 1,662 | 1,695 | 1,803 | 2,141 | 1,821 | 1,733 | 1,588 | 2,140 | NA   | NA   |
| Coastal       | 1,109 | 1,181 | 1,263 | 1,334 | 1,001 | 1,059 | 975   | 1,227 | NA   | NA   |
| Non-Coastal   | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA   | NA   |
| Out-of-State  | 553   | 514   | 540   | 807   | 819   | 674   | 613   | 913   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 45,795 | 39,678 | 37,306 | 43,968 | 42,395 | 38,695 | 40,404 | 43,987 | 35,930 | 40,436 |
| For-Hire     | 141    | 160    | 161    | 192    | 229    | 256    | 250    | 216    | 262    | 244    |
| Private Boat | 14,771 | 12,325 | 12,231 | 13,759 | 13,029 | 12,393 | 11,756 | 14,728 | 11,703 | 13,061 |
| Shore        | 30,883 | 27,193 | 24,914 | 30,016 | 29,138 | 26,046 | 28,398 | 29,043 | 23,965 | 27,131 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>3,4</sup>**

| Species          | Category | 2011   | 2012   | 2013   | 2014  | 2015  | 2016   | 2017   | 2018  | 2019   | 2020   |
|------------------|----------|--------|--------|--------|-------|-------|--------|--------|-------|--------|--------|
| Bluefish         | H        | 5,575  | 2,319  | 2,037  | 3,262 | 2,081 | 1,492  | 1,591  | 2,052 | 2,366  | 4,142  |
|                  | R        | 8,484  | 8,079  | 10,002 | 6,293 | 5,361 | 4,751  | 1,716  | 3,161 | 3,920  | 3,135  |
| Dolphinfish      | H        | 771    | 949    | 806    | 1,179 | 1,505 | 799    | 1,285  | 1,170 | 639    | 512    |
|                  | R        | 869    | 220    | 440    | 694   | 815   | 127    | 626    | 456   | 644    | 134    |
| Florida pompano  | H        | 507    | 1,602  | 630    | 575   | 486   | 380    | 612    | 557   | 1,886  | 386    |
|                  | R        | 2,676  | 2,666  | 1,261  | 1,780 | 984   | 1,190  | 827    | 1,033 | 1,737  | 1,127  |
| Gray snapper     | H        | 404    | 464    | 2,102  | 2,556 | 1,819 | 3,778  | 3,355  | 2,513 | 2,286  | 1,953  |
|                  | R        | 2,017  | 6,419  | 7,167  | 8,095 | 6,469 | 11,947 | 10,260 | 8,575 | 10,086 | 13,653 |
| King mackerel    | H        | 252    | 181    | 179    | 208   | 219   | 409    | 489    | 513   | 531    | 390    |
|                  | R        | 89     | 83     | 62     | 146   | 122   | 67     | 171    | 152   | 110    | 252    |
| Kingfish         | H        | 10,137 | 9,676  | 6,043  | 6,745 | 3,507 | 4,762  | 2,079  | 5,920 | 3,992  | 1,990  |
|                  | R        | 8,447  | 10,159 | 6,505  | 7,265 | 9,140 | 5,872  | 1,978  | 7,340 | 4,916  | 4,046  |
| Red drum         | H        | 788    | 878    | 1,008  | 1,028 | 982   | 1,310  | 979    | 1,070 | 599    | 560    |
|                  | R        | 4,192  | 2,615  | 5,197  | 5,075 | 4,132 | 4,734  | 4,727  | 5,375 | 3,689  | 3,154  |
| Sheepshead       | H        | 1,420  | 1,015  | 1,076  | 2,248 | 1,129 | 1,942  | 1,240  | 1,740 | 1,133  | 1,508  |
|                  | R        | 1,704  | 2,315  | 1,467  | 2,767 | 2,520 | 2,272  | 1,114  | 2,341 | 1,453  | 2,793  |
| Spanish mackerel | H        | 1,304  | 777    | 2,666  | 1,349 | 230   | 1,619  | 651    | 957   | 623    | 3,617  |
|                  | R        | 522    | 254    | 1,892  | 920   | 219   | 1,137  | 454    | 1,585 | 653    | 2,478  |
| Spotted seatrout | H        | 931    | 1,683  | 1,122  | 1,111 | 504   | 963    | 978    | 929   | 620    | 679    |
|                  | R        | 7,839  | 9,611  | 5,723  | 7,280 | 6,131 | 4,784  | 5,846  | 5,306 | 4,099  | 5,306  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> Non-coastal data are not available because all of the state's residents are considered coastal county residents.<sup>3</sup> 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.<sup>4</sup> Drum (kingfish) include kingfish genus and Gulf kingfish.

2019 Florida State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 574,512 (7.2%)                      | 8,860,042 (6.7%)               | 427 (5.7%)                           | 603 (5.3%)                                  | 1,116                                     | 0.84                                 |

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

| Sector                                    | Statistic | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019 |
|---|-----------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Seafood product preparation and packaging | Firms     | 294    | 307    | 300    | 315    | 300    | 316    | 280    | 287    | NA   |
|   | Receipts  | 14,618 | 17,557 | 17,214 | 22,329 | 21,841 | 20,834 | 19,651 | 21,888 | NA   |
| Seafood sales, retail                     | Firms     | 362    | 383    | 338    | 346    | 355    | 320    | 316    | 349    | NA   |
|   | Receipts  | 29,037 | 30,765 | 25,332 | 26,433 | 29,033 | 24,296 | 27,937 | 30,559 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018    | 2019    |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| Seafood product preparation and packaging | Establishments | 24     | 27     | 25     | 27     | 27     | 23     | 23     | 22      | 25      |
|   | Employees      | 1,095  | 1,608  | 1,374  | 1,419  | 1,429  | 1,535  | 1,942  | 1,591   | 1,946   |
|   | Payroll        | 42,612 | 51,735 | 50,003 | 50,556 | 58,246 | 63,039 | 79,173 | 69,416  | 87,532  |
| Seafood Sales, Wholesale                  | Establishments | 250    | 226    | 234    | 233    | 242    | 239    | 230    | 232     | 241     |
|   | Employees      | 1,913  | 1,957  | 1,878  | 1,974  | 2,055  | 1,849  | 2,098  | 2,128   | 2,081   |
|   | Payroll        | 77,115 | 75,945 | 79,266 | 83,964 | 90,247 | 83,818 | 89,907 | 101,920 | 103,464 |
| Seafood sales, retail                     | Establishments | 145    | 151    | 165    | 166    | 181    | 191    | 176    | 186     | 170     |
|   | Employees      | 849    | 945    | 909    | 1,037  | 1,137  | 1,133  | 1,140  | 1,164   | 1,190   |
|   | Payroll        | 20,158 | 21,577 | 23,476 | 25,844 | 29,066 | 26,981 | 29,146 | 30,086  | 31,968  |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>4</sup>

| Sector   | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018      | 2019      |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|-----------|-----------|
| Ship and Boat Building                         | Establishments | 246     | 258     | 259     | 263     | 278     | 281     | 269     | 284       | 275       |
|  | Employees      | 7,909   | 8,621   | 8,813   | 9,608   | 10,913  | 11,170  | 11,114  | 10,767    | 11,195    |
|  | Payroll        | 325,942 | 374,831 | 390,853 | 448,514 | 488,050 | 512,454 | 516,473 | 533,913   | 568,549   |
| Deep Sea Freight Transportation                | Establishments | 65      | 75      | 69      | 77      | 76      | 65      | 58      | 64        | 55        |
|  | Employees      | 2,374   | 3,345   | 2,485   | 2,015   | 2,154   | 1,639   | 2,189   | 2,362     | 2,090     |
|  | Payroll        | 177,386 | 231,887 | 140,564 | 131,069 | 137,786 | 113,897 | 193,568 | 211,165   | 172,366   |
| Deep Sea Passenger Transportation              | Establishments | 29      | 39      | 31      | 28      | 32      | 33      | 38      | 39        | 41        |
|  | Employees      | ds      | ds      | ds      | ds      | 10,510  | 10,161  | 9,882   | 10,714    | 10,584    |
|  | Payroll        | ds      | ds      | ds      | ds      | 967,938 | 864,475 | 970,607 | 1,013,720 | 1,077,237 |
| Coastal and Great Lakes Freight Transportation | Establishments | 54      | 60      | 47      | 62      | 57      | 62      | 64      | 67        | 70        |
|  | Employees      | 753     | 1,381   | 1,050   | 1,743   | 1,815   | 1,966   | 2,245   | 2,176     | 2,089     |
|  | Payroll        | 53,341  | 100,402 | 82,078  | 175,366 | 173,004 | 199,592 | 242,810 | 243,498   | 262,702   |
| Port and Harbor Operations                     | Establishments | 32      | 66      | 61      | 56      | 55      | 54      | 50      | 50        | 50        |
|  | Employees      | 377     | 2,082   | 555     | 588     | 987     | 1,006   | 1,560   | 1,867     | 1,967     |
|  | Payroll        | 16,879  | 72,554  | 25,439  | 20,647  | 32,032  | 32,969  | 39,956  | 44,789    | 66,474    |
| Marine Cargo Handling                          | Establishments | 64      | 43      | 58      | 61      | 69      | 63      | 72      | 66        | 62        |
|  | Employees      | 7,484   | 4,598   | 6,258   | 6,992   | 7,834   | 7,048   | 6,269   | 6,733     | 7,418     |
|  | Payroll        | 195,458 | 86,461  | 188,997 | 179,024 | 208,186 | 191,828 | 210,284 | 228,818   | 234,200   |
| Navigational Services to Shipping              | Establishments | 150     | 151     | 180     | 190     | 196     | 194     | 226     | 223       | 222       |
|  | Employees      | 1,047   | 853     | 1,390   | 878     | 861     | 922     | 1,074   | 1,017     | 1,069     |
|  | Payroll        | 75,561  | 68,366  | 130,893 | 74,185  | 72,483  | 73,708  | 81,050  | 79,333    | 84,030    |
| Marinas  | Establishments | 411     | 432     | 444     | 464     | 466     | 458     | 450     | 450       | 471       |
|  | Employees      | 4,657   | 4,918   | 5,076   | 5,421   | 5,472   | 5,405   | 5,481   | 5,738     | 6,101     |
|  | Payroll        | 142,997 | 148,573 | 145,265 | 168,185 | 171,354 | 176,315 | 184,529 | 202,187   | 204,545   |

<sup>1</sup> All data presented on this page are for the entire state of Florida, not just East Florida.

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>3</sup> 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.

<sup>4</sup> ds = Data are suppressed.

# Tables | Georgia



2020 Economic Impacts of the Georgia Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |           |         |             | Without Imports |         |        |             |
|--------------------------------------|--------------|-----------|---------|-------------|-----------------|---------|--------|-------------|
|                                      | Jobs         | Sales     | Income  | Value Added | Jobs            | Sales   | Income | Value Added |
| Total Impacts                        | 19,321       | 3,246,416 | 716,545 | 1,181,394   | 2,431           | 134,384 | 52,798 | 71,833      |
| Commercial Harvesters                | 836          | 37,658    | 12,932  | 18,519      | 836             | 37,658  | 12,932 | 18,519      |
| Seafood Processors and Dealers       | 1,639        | 154,097   | 59,387  | 78,392      | 265             | 24,916  | 9,602  | 12,675      |
| Importers                            | 7,300        | 2,417,042 | 387,377 | 736,820     | NA              | NA      | NA     | NA          |
| Seafood Wholesalers and Distributors | 1,543        | 226,563   | 78,135  | 109,803     | 48              | 7,102   | 2,449  | 3,442       |
| Retail                               | 8,002        | 411,057   | 178,715 | 237,860     | 1,281           | 64,708  | 27,815 | 37,196      |

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

| Category                  | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total                     | 16,514 | 16,741 | 12,733 | 17,330 | 17,860 | 13,951 | 17,032 | 17,767 | 24,271 | 21,883 |
| Finfish                   | 42     | 66     | 90     | 80     | 50     | 56     | 67     | 89     | 97     | 111    |
| Shellfish and Other       | 16,472 | 16,675 | 12,642 | 17,250 | 17,810 | 13,895 | 16,966 | 17,678 | 24,174 | 21,773 |
| Key Species               | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Blue crab                 | 3,345  | 4,267  | 3,975  | 3,774  | 4,346  | 4,044  | 5,062  | 6,012  | 5,965  | 6,251  |
| Clams                     | 831    | 834    | NA     | NA     | 2,284  | 2,402  | 2,262  | 2,247  | 1,845  | NA     |
| Eastern oyster            | 131    | 143    | 127    | 150    | 204    | 148    | 178    | 126    | 136    | 103    |
| Kingfishes                | 13     | 5      | 3      | 6      | 5      | 0      | 3      | 19     | 21     | 21     |
| Quahog clams (mercenaria) | 831    | 834    | NA     | NA     | 2,284  | 2,402  | 2,262  | 2,247  | 1,845  | NA     |
| Shad                      | NA     | 45     | 71     | 48     | 27     | 8      | 51     | 43     | 48     | 49     |
| Shrimp                    | 11,337 | 11,051 | 5,789  | 10,474 | 9,886  | 6,767  | 8,615  | 9,009  | 13,608 | 13,566 |

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

| Category                  | 2011   | 2012   | 2013   | 2014   | 2015   | 2016  | 2017  | 2018  | 2019   | 2020  |
|---------------------------|--------|--------|--------|--------|--------|-------|-------|-------|--------|-------|
| Total                     | 13,031 | 11,032 | 18,085 | 18,836 | 13,913 | 7,653 | 9,691 | 8,393 | 10,315 | 9,829 |
| Finfish                   | 32     | 58     | 76     | 70     | 36     | 21    | 57    | 59    | 71     | 76    |
| Shellfish and Other       | 12,999 | 10,973 | 18,008 | 18,766 | 13,877 | 7,632 | 9,635 | 8,334 | 10,243 | 9,753 |
| Key Species               | -      | -      | -      | -      | -      | -     | -     | -     | -      | -     |
| Blue crab                 | 3,427  | 4,265  | 3,215  | 2,669  | 2,940  | 3,323 | 3,843 | 4,523 | 4,247  | 3,892 |
| Clams                     | 147    | 144    | NA     | NA     | 371    | 348   | 354   | 338   | 210    | NA    |
| Eastern oyster            | 26     | 25     | 26     | 26     | 33     | 24    | 29    | 20    | 17     | 7     |
| Kingfishes                | 10     | 4      | 3      | 4      | 3      | 0     | 2     | 12    | 13     | 13    |
| Quahog clams (mercenaria) | 147    | 144    | NA     | NA     | 371    | 348   | 354   | 338   | 210    | NA    |
| Shad                      | NA     | 43     | 62     | 53     | 23     | 6     | 46    | 33    | 42     | 48    |
| Shrimp                    | 4,375  | 3,977  | 1,918  | 2,780  | 3,735  | 2,422 | 2,878 | 2,921 | 4,642  | 5,096 |

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

| Species                   | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020  |
|---------------------------|------|------|------|------|------|------|------|------|------|-------|
| Blue crab                 | 0.98 | 1.00 | 1.24 | 1.41 | 1.48 | 1.22 | 1.32 | 1.33 | 1.40 | 1.61  |
| Clams                     | 5.65 | 5.78 | NA   | NA   | 6.15 | 6.91 | 6.39 | 6.65 | 8.80 | NA    |
| Eastern oyster            | 5.09 | 5.73 | 4.85 | 5.71 | 6.26 | 6.17 | 6.19 | 6.46 | 7.81 | 15.71 |
| Kingfishes                | 1.27 | 1.28 | 1.30 | 1.67 | 1.46 | 1.40 | 1.14 | 1.59 | 1.62 | 1.59  |
| Quahog clams (mercenaria) | 5.65 | 5.78 | NA   | NA   | 6.15 | 6.91 | 6.39 | 6.65 | 8.80 | NA    |
| Shad                      | NA   | 1.06 | 1.13 | 0.92 | 1.13 | 1.32 | 1.13 | 1.32 | 1.14 | 1.02  |
| Shrimp                    | 2.59 | 2.78 | 3.02 | 3.77 | 2.65 | 2.79 | 2.99 | 3.08 | 2.93 | 2.66  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Georgia Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income | Value Added |
|------------------------------|-------|---------|--------|-------------|
| For-Hire                     | 72    | 7,460   | 2,517  | 4,407       |
| Private Boat                 | 849   | 66,518  | 21,286 | 43,837      |
| Shore                        | 2,000 | 181,863 | 60,069 | 112,257     |
| Total Durable Expenditures   | NA    | NA      | NA     | NA          |
| Total State Economic Impacts | 2,922 | 255,841 | 83,872 | 160,501     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 206,031    | 4,359    | 68,716       | 132,955 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 355  | 303  | 225  | 310  | 231  | 248  | 241  | 247  | NA   | NA   |
| Coastal       | 146  | 134  | 99   | 125  | 81   | 110  | 110  | 91   | NA   | NA   |
| Non-Coastal   | 131  | 96   | 72   | 115  | 80   | 89   | 73   | 81   | NA   | NA   |
| Out-of-State  | 78   | 74   | 53   | 70   | 70   | 49   | 57   | 74   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 2,902 | 2,990 | 3,320 | 3,737 | 4,109 | 3,880 | 4,624 | 4,593 | 4,021 | 4,890 |
| For-Hire     | 16    | 20    | 21    | 31    | 34    | 26    | 28    | 28    | 27    | 23    |
| Private Boat | 1,236 | 1,184 | 1,228 | 1,262 | 1,360 | 1,375 | 1,569 | 1,604 | 1,455 | 1,733 |
| Shore        | 1,650 | 1,786 | 2,071 | 2,444 | 2,715 | 2,480 | 3,028 | 2,960 | 2,539 | 3,135 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2</sup>**

| Species           | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic croaker  | H        | 130   | 105   | 265   | 290   | 790   | 402   | 371   | 241   | 332   | 233   |
|                   | R        | 749   | 781   | 1,362 | 2,058 | 1,321 | 1,179 | 1,060 | 1,404 | 1,893 | 1,697 |
| Black drum        | H        | 26    | 43    | 65    | 48    | 48    | 96    | 64    | 129   | 158   | 101   |
|                   | R        | 20    | 53    | 35    | 22    | 56    | 54    | 85    | 189   | 180   | 239   |
| Black sea bass    | H        | 98    | 53    | 234   | 167   | 123   | 19    | 26    | 79    | 45    | 45    |
|                   | R        | 526   | 425   | 826   | 1,925 | 1,087 | 314   | 681   | 849   | 1,181 | 891   |
| Bluefish          | H        | 10    | 21    | 17    | 70    | 49    | 12    | 9     | 91    | 26    | 11    |
|                   | R        | 124   | 148   | 42    | 261   | 427   | 96    | 30    | 295   | 247   | 176   |
| Red drum          | H        | 201   | 96    | 237   | 212   | 201   | 290   | 468   | 607   | 272   | 230   |
|                   | R        | 370   | 220   | 505   | 751   | 961   | 601   | 1,177 | 1,046 | 1,207 | 393   |
| Sharks            | H        | 11    | 14    | 26    | < 1   | 8     | 19    | 4     | 5     | 5     | 9     |
|                   | R        | 759   | 1,015 | 907   | 1,059 | 902   | 1,085 | 569   | 681   | 606   | 1,039 |
| Sheepshead        | H        | 282   | 141   | 129   | 56    | 121   | 187   | 159   | 403   | 152   | 249   |
|                   | R        | 102   | 58    | 114   | 62    | 128   | 69    | 75    | 237   | 212   | 215   |
| Southern flounder | H        | 55    | 43    | 52    | 58    | 130   | 84    | 101   | 117   | 97    | 149   |
|                   | R        | 44    | 9     | 22    | 22    | 127   | 34    | 80    | 14    | 42    | 174   |
| Southern kingfish | H        | 1,820 | 1,346 | 1,732 | 2,199 | 3,437 | 1,505 | 1,825 | 3,383 | 2,507 | 2,132 |
|                   | R        | 1,689 | 1,778 | 1,206 | 984   | 1,490 | 1,742 | 1,283 | 2,234 | 1,559 | 1,771 |
| Spotted seatrout  | H        | 762   | 1,207 | 937   | 724   | 741   | 1,290 | 1,060 | 1,168 | 1,008 | 831   |
|                   | R        | 1,348 | 2,197 | 1,321 | 1,688 | 1,764 | 2,113 | 2,437 | 2,113 | 2,673 | 2,632 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.



2019 Georgia State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 239,034 (3%)                        | 4,040,559 (3%)                 | 213 (2.9%)                           | 330 (2.9%)                                  | 638                                       | 0.05                                 |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018   | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|--------|------|
| Seafood product preparation and packaging | Firms     | 61    | 71    | 60    | 62    | 87    | 100   | 96    | 108    | NA   |
|   | Receipts  | 5,540 | 4,974 | 4,378 | 5,471 | 6,265 | 7,582 | 9,137 | 10,309 | NA   |
| Seafood sales, retail                     | Firms     | 89    | 97    | 77    | 103   | 84    | 75    | 72    | 64     | NA   |
|   | Receipts  | 8,646 | 8,233 | 6,932 | 9,338 | 8,379 | 8,298 | 9,462 | 6,533  | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 5      | 6      | 5      | 7      | 6      | 7      | 5      | 6      | 7      |
|   | Employees      | 1,022  | 854    | 945    | 895    | 854    | 917    | 641    | 618    | 595    |
| Seafood Sales, Wholesale                  | Payroll        | 39,433 | 32,928 | 35,987 | 37,122 | 37,368 | 38,634 | 31,721 | 24,905 | 24,589 |
|   | Establishments | 28     | 18     | 28     | 24     | 23     | 35     | 24     | 21     | 25     |
| Seafood sales, retail                     | Employees      | 562    | 468    | 469    | 792    | 701    | 731    | 198    | 183    | 207    |
|   | Payroll        | 20,660 | 15,459 | 17,326 | 24,726 | 26,254 | 28,745 | 6,327  | 6,177  | 8,093  |
| Seafood sales, retail                     | Establishments | 51     | 54     | 60     | 62     | 70     | 70     | 70     | 78     | 73     |
|   | Employees      | 176    | 214    | 210    | 229    | 248    | 283    | 269    | 306    | 283    |
|   | Payroll        | 2,566  | 3,425  | 3,390  | 3,745  | 4,539  | 4,966  | 4,863  | 5,923  | 6,257  |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

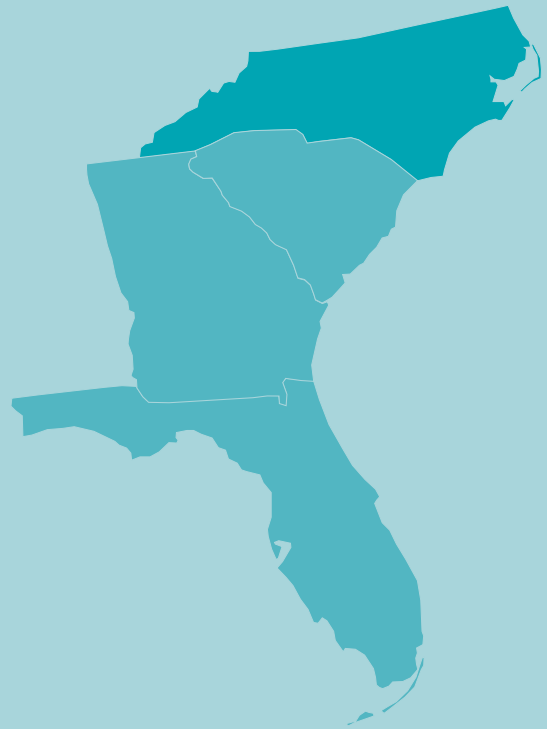
| Sector   | Statistic      | 2011    | 2012   | 2013    | 2014    | 2015    | 2016   | 2017    | 2018    | 2019    |
|--|----------------|---------|--------|---------|---------|---------|--------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 15      | 14     | 15      | 16      | 17      | 15     | 15      | 17      | 17      |
|  | Employees      | ds      | ds     | ds      | ds      | 3,150   | 2,272  | 2,384   | 2,804   | 2,487   |
|  | Payroll        | ds      | ds     | ds      | ds      | 110,951 | 81,978 | 86,762  | 120,915 | 117,293 |
| Deep Sea Freight Transportation                | Establishments | 12      | 12     | 7       | 9       | 9       | 9      | 11      | 10      | 11      |
|  | Employees      | 51      | 236    | 28      | 63      | 64      | 70     | 39      | 42      | 41      |
|  | Payroll        | 4,833   | 11,238 | 2,311   | 3,856   | 4,421   | 5,255  | 2,904   | 3,463   | 3,450   |
| Deep Sea Passenger Transportation              | Establishments | 1       | 1      | 1       | 1       | 2       | 1      | NA      | NA      | NA      |
|  | Employees      | ds      | ds     | ds      | ds      | ds      | ds     | NA      | NA      | NA      |
|  | Payroll        | ds      | ds     | ds      | ds      | ds      | ds     | NA      | NA      | NA      |
| Coastal and Great Lakes Freight Transportation | Establishments | 4       | 3      | 4       | 7       | 8       | 8      | 7       | 5       | 4       |
|  | Employees      | ds      | ds     | ds      | ds      | 66      | 84     | 71      | 44      | 36      |
|  | Payroll        | ds      | ds     | ds      | ds      | 4,356   | 5,074  | 4,661   | 3,822   | 3,399   |
| Port and Harbor Operations                     | Establishments | 2       | 13     | 7       | 4       | 4       | 5      | 4       | 5       | 6       |
|  | Employees      | ds      | ds     | ds      | ds      | 68      | 47     | 30      | 73      | 138     |
|  | Payroll        | ds      | ds     | ds      | ds      | 2,961   | 3,230  | 1,200   | 3,020   | 3,154   |
| Marine Cargo Handling                          | Establishments | 20      | 10     | 19      | 19      | 18      | 17     | 17      | 18      | 17      |
|  | Employees      | 4,655   | ds     | 2,986   | 3,561   | 4,956   | 3,966  | 4,022   | 4,778   | 4,837   |
|  | Payroll        | 108,674 | ds     | 120,985 | 124,394 | 117,785 | 98,105 | 105,327 | 125,992 | 140,006 |
| Navigational Services to Shipping              | Establishments | 8       | 10     | 8       | 7       | 9       | 8      | 10      | 10      | 11      |
|  | Employees      | ds      | ds     | ds      | ds      | 203     | 149    | 142     | 151     | 166     |
|  | Payroll        | ds      | ds     | ds      | ds      | 12,202  | 9,904  | 10,117  | 12,053  | 12,837  |
| Marinas  | Establishments | 63      | 63     | 59      | 65      | 67      | 63     | 66      | 68      | 72      |
|  | Employees      | 580     | 636    | 644     | 586     | 639     | 648    | 747     | 769     | 824     |
|  | Payroll        | 16,986  | 17,921 | 17,768  | 18,604  | 20,210  | 22,546 | 25,197  | 26,155  | 29,784  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | North Carolina



2020 Economic Impacts of the North Carolina Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |         |         |             | Without Imports |         |         |             |
|--------------------------------------|--------------|---------|---------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales   | Income  | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 7,604        | 817,990 | 222,610 | 335,853     | 4,613           | 270,974 | 110,649 | 147,112     |
| Commercial Harvesters                | 1,945        | 132,916 | 52,522  | 71,928      | 1,945           | 132,916 | 52,522  | 71,928      |
| Seafood Processors and Dealers       | 525          | 42,015  | 16,336  | 21,109      | 373             | 29,880  | 11,618  | 15,013      |
| Importers                            | 1,355        | 448,530 | 71,886  | 136,732     | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 360          | 46,557  | 16,328  | 21,552      | 109             | 14,143  | 4,960   | 6,547       |
| Retail                               | 3,418        | 147,971 | 65,537  | 84,532      | 2,185           | 94,034  | 41,549  | 53,624      |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015    | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Total               | 71,160 | 72,978 | 79,127 | 93,895 | 105,203 | 97,326 | 97,126 | 78,362 | 87,463 | 78,152 |
| Finfish             | 22,331 | 23,565 | 22,731 | 23,645 | 20,300  | 21,604 | 24,182 | 21,342 | 22,774 | 22,796 |
| Shellfish and Other | 48,829 | 49,413 | 56,397 | 70,250 | 84,903  | 75,721 | 72,944 | 57,020 | 64,688 | 55,357 |
| Key Species         | -      | -      | -      | -      | -       | -      | -      | -      | -      | -      |
| Atlantic croaker    | 3,160  | 2,132  | 1,727  | 1,865  | 1,651   | 2,290  | 1,135  | 1,635  | 1,569  | 672    |
| Black sea bass      | 627    | 688    | 869    | 1,408  | 1,354   | 1,398  | 1,859  | 1,517  | 1,158  | 746    |
| Blue crab           | 21,295 | 22,779 | 30,001 | 34,050 | 33,717  | 24,303 | 22,238 | 19,669 | 24,673 | 20,681 |
| Clams               | 1,862  | 2,239  | 2,309  | 2,912  | 5,101   | 2,696  | 2,151  | 1,603  | 1,102  | 889    |
| Flounders           | 8,893  | 7,419  | 7,066  | 13,058 | 12,845  | 12,057 | 11,967 | 10,719 | 10,374 | 4,811  |
| Groupers            | 1,462  | 1,421  | 1,247  | 1,263  | 1,108   | 1,126  | 1,012  | 1,112  | 1,469  | 1,115  |
| King mackerel       | 1,062  | 831    | 878    | 1,204  | 786     | 902    | 1,265  | 1,147  | 1,570  | 1,472  |
| Shrimp              | 10,888 | 13,293 | 12,945 | 14,146 | 16,804  | 29,751 | 29,619 | 20,047 | 21,933 | 22,316 |
| Snappers            | 1,004  | 900    | 917    | 865    | 797     | 955    | 998    | 1,172  | 1,568  | 1,044  |
| Tunas               | 2,437  | 4,400  | 3,208  | 3,721  | 3,193   | 3,337  | 5,330  | 4,550  | 4,001  | 4,719  |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 67,501 | 56,693 | 50,198 | 61,122 | 65,364 | 60,729 | 62,632 | 54,852 | 59,015 | 45,424 |
| Finfish             | 25,520 | 19,929 | 19,209 | 23,879 | 18,518 | 16,679 | 16,118 | 14,766 | 15,793 | 15,762 |
| Shellfish and Other | 41,981 | 36,764 | 30,989 | 37,243 | 46,846 | 44,050 | 46,514 | 40,086 | 43,222 | 29,662 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Atlantic croaker    | 5,054  | 3,107  | 1,928  | 2,630  | 1,819  | 2,164  | 1,008  | 1,644  | 1,278  | 570    |
| Black sea bass      | 272    | 256    | 330    | 527    | 468    | 439    | 631    | 497    | 385    | 272    |
| Blue crab           | 30,035 | 26,787 | 22,203 | 26,231 | 32,124 | 25,645 | 19,273 | 17,014 | 22,989 | 13,549 |
| Clams               | 295    | 396    | 347    | 431    | 414    | 339    | 289    | 211    | 123    | 74     |
| Flounders           | 4,102  | 2,736  | 2,728  | 4,584  | 4,080  | 3,021  | 2,957  | 2,558  | 2,825  | 2,260  |
| Groupers            | 408    | 382    | 311    | 299    | 259    | 261    | 223    | 239    | 302    | 221    |
| King mackerel       | 408    | 297    | 345    | 550    | 391    | 437    | 629    | 507    | 698    | 612    |
| Shrimp              | 5,140  | 6,141  | 4,859  | 4,691  | 9,077  | 13,832 | 13,896 | 9,730  | 9,547  | 9,710  |
| Snappers            | 326    | 279    | 276    | 251    | 231    | 279    | 281    | 323    | 423    | 278    |
| Tunas               | 1,056  | 1,482  | 1,283  | 1,460  | 1,085  | 1,239  | 1,802  | 1,300  | 1,266  | 1,583  |

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

| Species          | 2011 | 2012 | 2013 | 2014 | 2015  | 2016 | 2017 | 2018 | 2019 | 2020  |
|------------------|------|------|------|------|-------|------|------|------|------|-------|
| Atlantic croaker | 0.63 | 0.69 | 0.90 | 0.71 | 0.91  | 1.06 | 1.13 | 0.99 | 1.23 | 1.18  |
| Black sea bass   | 2.30 | 2.69 | 2.64 | 2.67 | 2.89  | 3.18 | 2.94 | 3.05 | 3.00 | 2.74  |
| Blue crab        | 0.71 | 0.85 | 1.35 | 1.30 | 1.05  | 0.95 | 1.15 | 1.16 | 1.07 | 1.53  |
| Clams            | 6.30 | 5.65 | 6.65 | 6.76 | 12.31 | 7.96 | 7.45 | 7.60 | 8.95 | 11.98 |
| Flounders        | 2.17 | 2.71 | 2.59 | 2.85 | 3.15  | 3.99 | 4.05 | 4.19 | 3.67 | 2.13  |
| Groupers         | 3.58 | 3.72 | 4.01 | 4.22 | 4.28  | 4.31 | 4.53 | 4.65 | 4.87 | 5.03  |
| King mackerel    | 2.60 | 2.79 | 2.54 | 2.19 | 2.01  | 2.07 | 2.01 | 2.26 | 2.25 | 2.40  |
| Shrimp           | 2.12 | 2.16 | 2.66 | 3.02 | 1.85  | 2.15 | 2.13 | 2.06 | 2.30 | 2.30  |
| Snappers         | 3.08 | 3.22 | 3.32 | 3.44 | 3.45  | 3.42 | 3.55 | 3.63 | 3.71 | 3.75  |
| Tunas            | 2.31 | 2.97 | 2.50 | 2.55 | 2.94  | 2.69 | 2.96 | 3.50 | 3.16 | 2.98  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

2020 Economic Impacts of North Carolina Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>

| Fishing Mode                 | Jobs   | Sales     | Income  | Value Added |
|------------------------------|--------|-----------|---------|-------------|
| For-Hire                     | 1,609  | 160,271   | 54,280  | 92,262      |
| Private Boat                 | 2,674  | 284,408   | 99,233  | 172,019     |
| Shore                        | 10,931 | 1,137,411 | 400,332 | 691,660     |
| Total Durable Expenditures   | NA     | NA        | NA      | NA          |
| Total State Economic Impacts | 15,214 | 1,582,090 | 553,845 | 955,941     |

2020 Angler Trip Expenditures (thousands of dollars)

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 1,171,227  | 97,089   | 268,023      | 806,114 |

Recreational Anglers by Residential Area (thousands of anglers)

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Total Anglers | 1,499 | 1,661 | 1,405 | 1,656 | 1,548 | 1,889 | 1,512 | 1,537 | NA   | NA   |
| Coastal       | 490   | 614   | 564   | 549   | 479   | 541   | 481   | 460   | NA   | NA   |
| Non-Coastal   | 254   | 283   | 240   | 301   | 239   | 281   | 235   | 268   | NA   | NA   |
| Out-of-State  | 755   | 764   | 601   | 805   | 830   | 1,066 | 795   | 809   | NA   | NA   |

Recreational Fishing Effort by Mode (thousands of angler trips)

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 19,469 | 18,555 | 18,136 | 18,960 | 20,357 | 21,199 | 22,497 | 16,624 | 17,540 | 16,399 |
| For-Hire     | 129    | 159    | 161    | 130    | 148    | 181    | 195    | 148    | 161    | 215    |
| Private Boat | 5,213  | 5,055  | 4,848  | 4,896  | 4,993  | 4,860  | 5,045  | 4,279  | 4,647  | 5,414  |
| Shore        | 14,127 | 13,342 | 13,127 | 13,934 | 15,216 | 16,158 | 17,258 | 12,197 | 12,733 | 10,771 |

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3</sup>

| Species  | Category | 2011   | 2012  | 2013   | 2014   | 2015   | 2016  | 2017  | 2018   | 2019  | 2020  |
|--|----------|--------|-------|--------|--------|--------|-------|-------|--------|-------|-------|
| Atlantic croaker and spot                      | H        | 7,354  | 3,526 | 7,422  | 10,279 | 4,010  | 3,038 | 3,085 | 2,542  | 3,474 | 1,594 |
|  | R        | 11,999 | 6,875 | 12,243 | 14,391 | 12,617 | 9,086 | 6,534 | 6,374  | 5,990 | 7,234 |
| Black sea bass                                 | H        | 180    | 134   | 90     | 333    | 320    | 195   | 317   | 86     | 152   | 133   |
|  | R        | 2,570  | 4,650 | 3,041  | 5,023  | 5,036  | 5,536 | 6,191 | 2,224  | 2,803 | 2,439 |
| Bluefish                                       | H        | 3,614  | 2,684 | 4,288  | 4,419  | 4,123  | 4,489 | 3,173 | 3,305  | 2,753 | 2,108 |
|  | R        | 7,150  | 3,268 | 7,051  | 5,863  | 6,356  | 6,803 | 8,256 | 7,912  | 7,162 | 6,558 |
| Dolphinfish                                    | H        | 639    | 427   | 323    | 403    | 740    | 481   | 280   | 495    | 458   | 262   |
|  | R        | 16     | 5     | 5      | 7      | 74     | 3     | 3     | 28     | 35    | 27    |
| King mackerel                                  | H        | 32     | 56    | 48     | 72     | 96     | 108   | 110   | 103    | 185   | 146   |
|  | R        | < 1    | 6     | 9      | 35     | 17     | 44    | 95    | 76     | 115   | 71    |
| Southern flounder and lefteye flounder species | H        | 291    | 283   | 229    | 443    | 227    | 94    | 227   | 102    | 111   | 76    |
|  | R        | 3,226  | 4,025 | 4,012  | 3,290  | 2,781  | 2,877 | 2,990 | 1,497  | 2,055 | 2,529 |
| Spanish mackerel                               | H        | 855    | 996   | 995    | 1,029  | 835    | 918   | 996   | 1,013  | 1,479 | 1,286 |
|  | R        | 480    | 592   | 686    | 814    | 515    | 547   | 688   | 1,019  | 1,340 | 1,267 |
| Spotted seatrout                               | H        | 724    | 1,603 | 1,108  | 725    | 249    | 979   | 1,218 | 449    | 1,937 | 2,053 |
|  | R        | 7,421  | 4,916 | 4,279  | 3,949  | 4,824  | 6,475 | 5,148 | 15,238 | 7,161 | 6,156 |
| Striped bass                                   | H        | 249    | 24    | 58     | 21     | 41     | 20    | 73    | 161    | 46    | 43    |
|  | R        | 808    | 501   | 361    | 374    | 343    | 1,089 | 3,691 | 1,867  | 809   | 928   |
| Yellowfin tuna                                 | H        | 33     | 70    | 53     | 44     | 38     | 80    | 119   | 61     | 45    | 84    |
|  | R        | < 1    | 9     | 1      | 7      | 2      | 29    | 18    | 4      | 2     | 33    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 North Carolina State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 238,015 (3%)                        | 3,932,620 (3%)                 | 195 (2.6%)                           | 316 (2.8%)                                  | 596                                       | 0.04                                 |

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

| Sector                                    | Statistic | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019 |
|---|-----------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Seafood product preparation and packaging | Firms     | 50     | 46     | 58     | 63     | 72     | 69     | 59     | 52     | NA   |
|   | Receipts  | 2,705  | 1,630  | 4,605  | 4,599  | 4,715  | 4,204  | 3,535  | 2,986  | NA   |
| Seafood sales, retail                     | Firms     | 144    | 136    | 127    | 137    | 134    | 122    | 149    | 134    | NA   |
|   | Receipts  | 10,386 | 11,990 | 12,175 | 13,430 | 12,705 | 12,215 | 13,921 | 12,965 | NA   |

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

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 14     | 12     | 13     | 14     | 16     | 14     | 13     | 14     | 12     |
|   | Employees      | ds     | ds     | 135    | 128    | 128    | 128    | 240    | 313    | 353    |
|   | Payroll        | 4,830  | 5,084  | 4,563  | 4,720  | 6,582  | 6,366  | 10,124 | 12,700 | 15,148 |
| Seafood Sales, Wholesale                  | Establishments | 64     | 59     | 59     | 56     | 59     | 57     | 51     | 50     | 49     |
|   | Employees      | 603    | 793    | 849    | 966    | 1,187  | 1,267  | 739    | 742    | 771    |
| Seafood sales, retail                     | Payroll        | 19,344 | 23,949 | 26,687 | 30,292 | 38,462 | 43,297 | 27,127 | 27,873 | 31,278 |
|   | Establishments | 84     | 88     | 86     | 93     | 91     | 93     | 93     | 93     | 97     |
|   | Employees      | 244    | 289    | 254    | 278    | 255    | 282    | 316    | 317    | 352    |
| Payroll                                   | 5,250          | 5,860  | 5,872  | 6,263  | 6,681  | 7,207  | 8,223  | 8,479  | 9,024  |        |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

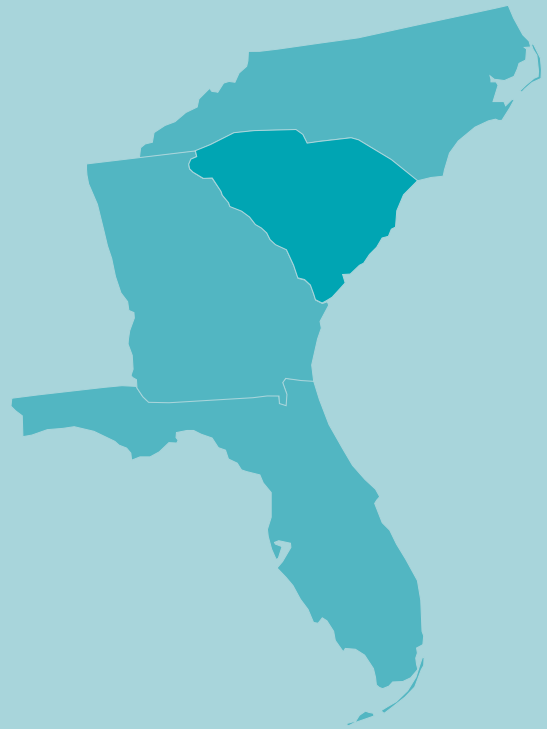
| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|--|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ship and Boat Building                         | Establishments | 57     | 60     | 52     | 52     | 62     | 63     | 66     | 65     | 62     |
|  | Employees      | 1,515  | 1,760  | 1,059  | 1,153  | 1,422  | 1,571  | 1,807  | 2,028  | 2,140  |
|  | Payroll        | 66,929 | 74,843 | 49,462 | 50,102 | 65,388 | 73,550 | 89,950 | 96,174 | 99,071 |
| Deep Sea Freight Transportation                | Establishments | 8      | 7      | 8      | 8      | 6      | 5      | 3      | 3      | 3      |
|  | Employees      | ds     | 25     | ds     | ds     | ds     | ds     | ds     | 87     | 113    |
|  | Payroll        | ds     | 1,579  | ds     | ds     | ds     | ds     | ds     | 6,229  | 10,412 |
| Deep Sea Passenger Transportation              | Establishments | 1      | NA     | NA     | NA     | NA     | 2      | NA     | NA     | NA     |
|  | Employees      | ds     | NA     | NA     | NA     | NA     | ds     | NA     | NA     | NA     |
|  | Payroll        | ds     | NA     | NA     | NA     | NA     | ds     | NA     | NA     | NA     |
| Coastal and Great Lakes Freight Transportation | Establishments | 5      | 6      | 5      | 5      | 6      | 5      | NA     | NA     | NA     |
|  | Employees      | ds     | ds     | ds     | ds     | ds     | ds     | NA     | NA     | NA     |
|  | Payroll        | ds     | ds     | ds     | ds     | ds     | ds     | NA     | NA     | NA     |
| Port and Harbor Operations                     | Establishments | 3      | 9      | 5      | 2      | 2      | 2      | 4      | 3      | NA     |
|  | Employees      | ds     | ds     | 46     | ds     | ds     | ds     | 126    | 100    | NA     |
|  | Payroll        | ds     | ds     | 1,579  | ds     | ds     | ds     | 4,437  | 2,037  | NA     |
| Marine Cargo Handling                          | Establishments | 14     | 6      | 9      | 9      | 9      | 9      | 8      | 9      | 9      |
|  | Employees      | ds     | ds     | ds     | ds     | 797    | 594    | 627    | 618    | 673    |
|  | Payroll        | ds     | ds     | ds     | ds     | 14,767 | 14,204 | 26,470 | 28,482 | 37,128 |
| Navigational Services to Shipping              | Establishments | 11     | 8      | 10     | 13     | 13     | 12     | 17     | 14     | 12     |
|  | Employees      | 86     | 90     | 77     | 78     | 78     | 71     | 133    | 120    | 97     |
|  | Payroll        | 4,041  | 3,203  | 3,583  | 3,844  | 4,350  | 4,369  | 5,941  | 5,574  | 4,967  |
| Marinas  | Establishments | 104    | 102    | 99     | 100    | 105    | 109    | 92     | 99     | 96     |
|  | Employees      | 524    | 531    | 501    | 541    | 579    | 624    | 525    | 679    | 665    |
|  | Payroll        | 16,187 | 15,975 | 16,369 | 16,774 | 18,672 | 21,964 | 17,773 | 23,916 | 23,097 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | South Carolina



2020 Economic Impacts of the South Carolina Seafood Industry (thousands of dollars; number of jobs)<sup>1</sup>

| Sector                               | With Imports |         |        |             | Without Imports |        |        |             |
|--------------------------------------|--------------|---------|--------|-------------|-----------------|--------|--------|-------------|
|                                      | Jobs         | Sales   | Income | Value Added | Jobs            | Sales  | Income | Value Added |
| Total Impacts                        | 1,623        | 139,133 | 46,090 | 65,209      | 1,385           | 88,717 | 36,194 | 48,219      |
| Commercial Harvesters                | 517          | 43,460  | 17,014 | 23,443      | 517             | 43,460 | 17,014 | 23,443      |
| Seafood Processors and Dealers       | 114          | 10,405  | 4,070  | 5,234       | 105             | 9,573  | 3,745  | 4,815       |
| Importers                            | 130          | 42,944  | 6,883  | 13,091      | NA              | NA     | NA     | NA          |
| Seafood Wholesalers and Distributors | 64           | 7,737   | 2,718  | 3,570       | 37              | 4,472  | 1,571  | 2,064       |
| Retail                               | 798          | 34,587  | 15,405 | 19,871      | 726             | 31,212 | 13,864 | 17,897      |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 24,675 | 25,592 | 24,625 | 24,193 | 24,578 | 25,065 | 25,741 | 22,093 | 25,113 | 26,214 |
| Finfish             | 8,864  | 7,023  | 8,325  | 6,770  | 7,481  | 7,044  | 8,453  | 6,161  | 6,645  | 6,976  |
| Shellfish and Other | 15,811 | 18,570 | 16,299 | 17,423 | 17,097 | 18,021 | 17,288 | 15,932 | 18,468 | 19,238 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Black sea bass      | 181    | 303    | 471    | 341    | 246    | 156    | 251    | 187    | 292    | 65     |
| Blue crab           | 5,084  | 5,800  | 6,368  | 5,822  | 4,831  | 5,538  | 5,569  | 5,143  | 5,158  | 5,642  |
| Clams               | 823    | 583    | 699    | 585    | 570    | 726    | 434    | 580    | 245    | 228    |
| Groupers            | 1,709  | 1,119  | 1,394  | 1,412  | 1,199  | 754    | 1,042  | 1,094  | 987    | 1,167  |
| Oysters             | 1,975  | 2,153  | 2,402  | 2,243  | 2,258  | 2,321  | 2,612  | 2,967  | 3,725  | 3,077  |
| Sharks              | 99     | 108    | 55     | 87     | 18     | 33     | 42     | 38     | 34     | 43     |
| Shrimp              | 7,004  | 8,689  | 5,935  | 8,035  | 8,525  | 8,129  | 8,313  | 6,324  | 8,164  | 8,990  |
| Snappers            | 1,085  | 1,334  | 1,075  | 948    | 1,067  | 1,090  | 1,116  | 1,156  | 1,236  | 1,422  |
| Swordfish           | 3,628  | 2,105  | 2,370  | 1,298  | 1,437  | 1,785  | 1,815  | 1,614  | 1,724  | 2,144  |
| Tilefish            | 8      | 148    | 404    | 538    | 537    | NA     | 780    | 326    | 341    | 197    |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018  | 2019  | 2020  |
|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| Total               | 12,565 | 12,770 | 10,919 | 10,381 | 10,971 | 11,007 | 10,774 | 8,979 | 9,838 | 9,730 |
| Finfish             | 3,160  | 2,583  | 2,586  | 2,360  | 3,095  | 2,660  | 3,047  | 1,898 | 2,199 | 2,434 |
| Shellfish and Other | 9,405  | 10,187 | 8,333  | 8,021  | 7,876  | 8,347  | 7,727  | 7,081 | 7,639 | 7,296 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -     | -     | -     |
| Black sea bass      | 100    | 118    | 178    | 131    | 81     | 49     | 81     | 62    | 87    | 24    |
| Blue crab           | 5,439  | 5,900  | 5,134  | 3,833  | 3,746  | 4,382  | 4,390  | 3,890 | 3,971 | 3,422 |
| Clams               | 150    | 102    | 118    | 90     | 94     | 85     | 59     | 60    | 29    | 25    |
| Groupers            | 386    | 252    | 298    | 284    | 229    | 133    | 185    | 190   | 168   | 199   |
| Oysters             | 337    | 361    | 376    | 339    | 331    | 314    | 327    | 324   | 374   | 297   |
| Sharks              | 108    | 103    | 44     | 56     | 13     | 21     | 29     | 23    | 20    | 26    |
| Shrimp              | 2,914  | 3,433  | 2,039  | 2,615  | 3,406  | 3,136  | 2,755  | 2,159 | 2,667 | 3,025 |
| Snappers            | 358    | 425    | 321    | 270    | 305    | 287    | 305    | 307   | 318   | 347   |
| Swordfish           | 912    | 613    | 625    | 366    | 428    | 528    | 526    | 529   | 661   | 722   |
| Tilefish            | 4      | 51     | 160    | 194    | 171    | NA     | 191    | 83    | 85    | 57    |

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

| Species        | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020  |
|----------------|------|------|------|------|------|------|------|------|------|-------|
| Black sea bass | 1.82 | 2.57 | 2.64 | 2.60 | 3.03 | 3.20 | 3.11 | 3.00 | 3.37 | 2.70  |
| Blue crab      | 0.93 | 0.98 | 1.24 | 1.52 | 1.29 | 1.26 | 1.27 | 1.32 | 1.30 | 1.65  |
| Clams          | 5.48 | 5.71 | 5.94 | 6.49 | 6.08 | 8.53 | 7.39 | 9.69 | 8.57 | 9.19  |
| Groupers       | 4.42 | 4.45 | 4.68 | 4.97 | 5.24 | 5.67 | 5.63 | 5.75 | 5.87 | 5.87  |
| Oysters        | 5.85 | 5.96 | 6.39 | 6.61 | 6.81 | 7.39 | 7.99 | 9.15 | 9.95 | 10.35 |
| Sharks         | 0.91 | 1.04 | 1.26 | 1.55 | 1.34 | 1.59 | 1.44 | 1.61 | 1.68 | 1.64  |
| Shrimp         | 2.40 | 2.53 | 2.91 | 3.07 | 2.50 | 2.59 | 3.02 | 2.93 | 3.06 | 2.97  |
| Snappers       | 3.03 | 3.14 | 3.34 | 3.52 | 3.50 | 3.79 | 3.66 | 3.77 | 3.88 | 4.09  |
| Swordfish      | 3.98 | 3.43 | 3.79 | 3.54 | 3.36 | 3.38 | 3.45 | 3.05 | 2.61 | 2.97  |
| Tilefish       | 1.84 | 2.87 | 2.53 | 2.76 | 3.15 | NA   | 4.08 | 3.92 | 4.02 | 3.47  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

2020 Economic Impacts of South Carolina Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 451   | 41,839  | 13,894  | 24,074      |
| Private Boat                 | 1,191 | 95,945  | 29,412  | 62,487      |
| Shore                        | 4,918 | 466,733 | 156,544 | 295,465     |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 6,560 | 604,516 | 199,851 | 382,026     |

2020 Angler Trip Expenditures (thousands of dollars)

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 487,921    | 26,940   | 102,851      | 358,130 |

Recreational Anglers by Residential Area (thousands of anglers)

| Category      | 2011 | 2012 | 2013 | 2014 | 2015  | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|-------|------|------|------|------|------|
| Total Anglers | 478  | 736  | 852  | 864  | 1,033 | 775  | 714  | 861  | NA   | NA   |
| Coastal       | 148  | 207  | 166  | 181  | 192   | 163  | 184  | 176  | NA   | NA   |
| Non-Coastal   | 66   | 123  | 84   | 114  | 157   | 102  | 93   | 116  | NA   | NA   |
| Out-of-State  | 264  | 406  | 602  | 569  | 684   | 510  | 437  | 569  | NA   | NA   |

Recreational Fishing Effort by Mode (thousands of angler trips)

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019   | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| Total Trips  | 8,507 | 8,111 | 9,751 | 8,746 | 8,962 | 9,335 | 9,389 | 9,897 | 11,839 | 8,734 |
| For-Hire     | 75    | 24    | 48    | 95    | 97    | 78    | 88    | 131   | 129    | 97    |
| Private Boat | 2,170 | 2,223 | 2,187 | 2,276 | 2,371 | 2,624 | 3,136 | 2,279 | 2,949  | 2,630 |
| Shore        | 6,262 | 5,865 | 7,515 | 6,375 | 6,494 | 6,634 | 6,165 | 7,487 | 8,760  | 6,007 |

Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3</sup>

| Species                   | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020   |
|---------------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Atlantic croaker and spot | H        | 4,124 | 5,135 | 5,041 | 1,859 | 8,094 | 5,243 | 2,663 | 1,232 | 908   | 1,219  |
|                           | R        | 2,477 | 1,744 | 9,645 | 6,651 | 6,055 | 8,655 | 5,125 | 5,884 | 4,042 | 13,305 |
| Black sea bass            | H        | 104   | 127   | 53    | 249   | 88    | 56    | 197   | 63    | 76    | 49     |
|                           | R        | 2,366 | 1,212 | 1,022 | 4,286 | 2,079 | 2,282 | 3,266 | 1,362 | 2,247 | 1,157  |
| Bluefish                  | H        | 1,439 | 924   | 2,106 | 820   | 921   | 1,123 | 752   | 765   | 877   | 289    |
|                           | R        | 2,911 | 615   | 1,914 | 1,470 | 2,597 | 1,583 | 3,105 | 1,530 | 5,571 | 1,898  |
| Red drum                  | H        | 373   | 296   | 283   | 393   | 258   | 241   | 456   | 263   | 333   | 240    |
|                           | R        | 1,618 | 1,083 | 1,865 | 1,875 | 1,433 | 1,267 | 2,094 | 1,494 | 2,912 | 1,705  |
| Sharks                    | H        | 26    | 22    | 57    | 33    | 13    | 19    | 11    | 6     | 13    | 10     |
|                           | R        | 1,714 | 2,489 | 4,477 | 2,571 | 2,921 | 1,694 | 1,429 | 1,867 | 1,797 | 1,156  |
| Sheepshead                | H        | 458   | 128   | 66    | 169   | 141   | 136   | 204   | 118   | 164   | 135    |
|                           | R        | 203   | 163   | 315   | 421   | 368   | 391   | 436   | 421   | 533   | 411    |
| Southern flounder         | H        | 323   | 258   | 191   | 140   | 184   | 187   | 221   | 114   | 114   | 122    |
|                           | R        | 63    | 120   | 0     | 0     | 0     | < 1   | 0     | < 1   | 0     | < 1    |
| Southern kingfish         | H        | 1,731 | 2,774 | 3,639 | 2,207 | 1,368 | 1,450 | 1,783 | 923   | 896   | 2,444  |
|                           | R        | 458   | 712   | 0     | 22    | 11    | 45    | 3     | 4     | 2     | < 1    |
| Spanish mackerel          | H        | 472   | 258   | 101   | 194   | 390   | 306   | 46    | 289   | 1,047 | 861    |
|                           | R        | 389   | 313   | 130   | 137   | 322   | 334   | 300   | 322   | 1,589 | 1,060  |
| Spotted seatrout          | H        | 193   | 622   | 441   | 260   | 311   | 311   | 648   | 257   | 814   | 511    |
|                           | R        | 744   | 1,762 | 2,191 | 1,407 | 1,148 | 1,791 | 1,950 | 1,063 | 2,477 | 1,302  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.



2019 South Carolina State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 111,926 (1.4%)                      | 1,949,406 (1.5%)               | 83.5 (1.1%)                          | 136 (1.2%)                                  | 245                                       | 0.1                                  |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 32    | 35    | 30    | 28    | 26    | 31    | 30    | 37    | NA   |
|   | Receipts  | 1,326 | 1,868 | 1,657 | 2,690 | 2,438 | 3,782 | 4,136 | 4,909 | NA   |
| Seafood sales, retail                     | Firms     | 87    | 67    | 67    | 73    | 69    | 57    | 72    | 67    | NA   |
|   | Receipts  | 5,535 | 4,818 | 3,765 | 4,845 | 6,007 | 5,753 | 5,869 | 5,115 | NA   |

Seafood Sales and Processing — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector                                    | Statistic      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Seafood product preparation and packaging | Establishments | 1     | NA    | NA    | 4     | 2     | 1     | NA    | NA    | NA    |
|   | Employees      | ds    | NA    | NA    | ds    | ds    | ds    | NA    | NA    | NA    |
|   | Payroll        | ds    | NA    | NA    | ds    | ds    | ds    | NA    | NA    | NA    |
| Seafood Sales, Wholesale                  | Establishments | 12    | 15    | 16    | 12    | 16    | 15    | 14    | 15    | 17    |
|   | Employees      | 101   | 125   | 134   | 148   | 146   | 151   | 157   | 135   | 140   |
|   | Payroll        | 3,760 | 4,506 | 4,849 | 5,329 | 5,327 | 5,193 | 4,840 | 4,732 | 4,616 |
| Seafood sales, retail                     | Establishments | 61    | 60    | 56    | 56    | 54    | 58    | 48    | 52    | 51    |
|   | Employees      | 245   | 228   | 222   | 224   | 185   | 200   | 163   | 185   | 229   |
|   | Payroll        | 4,231 | 3,670 | 3,713 | 3,633 | 3,883 | 4,006 | 3,186 | 3,935 | 5,630 |

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

| Sector   | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 41     | 39     | 37     | 37     | 34      | 34      | 32      | 32      | 35      |
|  | Employees      | 1,943  | 1,980  | 2,262  | 2,225  | 2,690   | 2,789   | 3,031   | 3,307   | 3,383   |
|  | Payroll        | 85,568 | 90,942 | 96,081 | 98,324 | 115,262 | 125,487 | 141,999 | 158,443 | 168,577 |
| Deep Sea Freight Transportation                | Establishments | 6      | 6      | 4      | 1      | 1       | 1       | NA      | NA      | NA      |
|  | Employees      | ds     | ds     | 21     | ds     | ds      | ds      | NA      | NA      | NA      |
|  | Payroll        | 722    | ds     | 633    | ds     | ds      | ds      | NA      | NA      | NA      |
| Deep Sea Passenger Transportation              | Establishments | 2      | 1      | NA     | NA     | NA      | 1       | NA      | NA      | NA      |
|  | Employees      | ds     | ds     | NA     | NA     | NA      | ds      | NA      | NA      | NA      |
|  | Payroll        | ds     | ds     | NA     | NA     | NA      | ds      | NA      | NA      | NA      |
| Coastal and Great Lakes Freight Transportation | Establishments | 4      | 5      | 5      | 5      | 4       | 5       | 7       | 6       | NA      |
|  | Employees      | ds     | 40     | ds     | ds     | ds      | 33      | 44      | 40      | NA      |
|  | Payroll        | ds     | 2,625  | ds     | ds     | ds      | 1,899   | 2,777   | 2,036   | NA      |
| Port and Harbor Operations                     | Establishments | 5      | 7      | 2      | 3      | 4       | 4       | 3       | 3       | 3       |
|  | Employees      | ds     | 676    | ds     | ds     | ds      | ds      | ds      | 34      | 35      |
|  | Payroll        | ds     | 29,332 | ds     | ds     | ds      | ds      | ds      | 2,303   | 2,477   |
| Marine Cargo Handling                          | Establishments | 14     | 10     | 13     | 14     | 15      | 14      | 10      | 9       | 8       |
|  | Employees      | 1,717  | 715    | ds     | 1,902  | 2,467   | 2,117   | 1,614   | 1,814   | 2,924   |
|  | Payroll        | 49,172 | 30,381 | ds     | 66,803 | 59,595  | 75,187  | 79,262  | 84,486  | 79,405  |
| Navigational Services to Shipping              | Establishments | 8      | 10     | 8      | 9      | 9       | 9       | 10      | 10      | 10      |
|  | Employees      | 217    | 247    | 221    | 219    | 236     | 255     | 320     | 334     | 311     |
|  | Payroll        | 11,922 | 16,625 | 13,820 | 14,513 | 16,311  | 18,135  | 21,257  | 22,025  | 24,338  |
| Marinas  | Establishments | 75     | 70     | 77     | 70     | 70      | 74      | 67      | 66      | 64      |
|  | Employees      | 543    | 595    | 650    | 661    | 633     | 717     | 684     | 715     | 747     |
|  | Payroll        | 15,805 | 15,408 | 16,147 | 17,212 | 16,996  | 19,201  | 18,948  | 19,885  | 20,492  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Gulf of Mexico Region

- Alabama
- West Florida
- Louisiana
- Mississippi
- Texas



Recreational fishing.  
Photo: Return `Em Right

## 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).

### Gulf of Mexico Region FMPs

- 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 \$54.6 million in 2019. 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 2019 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 2019 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 — 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 Commercial Species

- Blue crab
- Crawfish
- Groupers
- Menhaden
- Mulletts
- 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.

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.<sup>1,2</sup>

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 2020, the commercial fishing and seafood industry in Florida generated the largest employment impacts in the Gulf of Mexico region with 76,685 full- and part-time jobs. Florida also generated the largest sales impacts (\$18.5 billion), value-added impacts (\$6.2 billion), and income impacts (\$3.5 billion).

## Landings Revenue

In 2020, landings revenue in the Gulf of Mexico Region totaled \$732.5 million, a 9% decrease from 2011 (a 21% decrease in real terms after adjusting for inflation) and a 10% decrease from 2019. Landings revenue was highest in Louisiana (\$263 million), followed by Texas (\$195.6 million).

Shellfish and other landings revenue accounted for 73% of all landings revenue. In 2020, shrimp (\$341.4 million),

menhaden (\$105.1 million), and blue crab (\$69.7 million) had the highest landings revenue in this region. Together, these top three species accounted for 70% of total landings revenue.

From 2011 to 2020, red snapper (178%, 140% in real terms), blue crab (42%, 23% in real terms), and crawfish (11%, -4% in real terms) had the largest increases, while tunas (-68%, -72% in real terms), mullets (-60%, -65% in real terms), and spiny lobster (-38%, -46% in real terms) had the largest decreases. From 2019 to 2020, menhaden (3%) and blue crab (0.2%) had the largest increases, while oysters (-33%), tunas (-29%), and spiny lobster (-26%) had the largest decreases.

### Commercial Revenue: Largest Increases

*From 2011:*

- Red snapper (178%, 140% in real terms)
- Blue crab (42%, 23% in real terms)
- Crawfish (11%, -4% in real terms)

*From 2019:*

- Menhaden (3%)
- Blue crab (0.2%)

### Commercial Revenue: Largest Decreases

*From 2011:*

- Tunas (-68%, -72% in real terms)
- Mulletts (-60%, -65% in real terms)
- Spiny lobster (-38%, -46% in real terms)

*From 2019:*

- Oysters (-33%)
- Tunas (-29%)
- Spiny lobster (-26%)

## Landings

In 2020, Gulf of Mexico Region commercial fishermen landed over 1.2 billion pounds of finfish and shellfish. This represents a 32% decrease from 2011 and a 14% decrease from 2019. Menhaden contributed the highest landings volume in the region, accounting for 75% of total landing weight.

From 2011 to 2020, red snapper increased 117%, while tunas (-64%), mullets (-61%), and oysters (-52%) had the largest decreases. From 2019 to 2020, groupers (3%) and red snapper (0.5%) had the largest increases, while

<sup>1</sup> 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](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).]

<sup>2</sup> Commercial economic impacts data were not available for West Florida specifically; data for the entire state of Florida are reported here.

oysters (-30%), mullets (-21%), and spiny lobster (-18%) had the largest decreases.

**Commercial Landings: Largest Increases**

*From 2011:*

- Red snapper (117%)

*From 2019:*

- Groupers (3%)
- Red snapper (0.5%)

**Commercial Landings: Largest Decreases**

*From 2011:*

- Tunas (-64%)
- Mulletts (-61%)
- Oysters (-52%)

*From 2019:*

- Oysters (-30%)
- Mulletts (-21%)
- Spiny lobster (-18%)

**Key Gulf of Mexico Region Recreational Species<sup>6</sup>**

- 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.<sup>7</sup> 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.

**Prices**

In 2020, spiny lobster (\$7.06 per pound) received the highest ex-vessel price in the region. Landings of menhaden (\$0.12 per pound) had the lowest ex-vessel price. From 2011 to 2020, oysters (91%, 65% in real terms), blue crab (82%, 57% in real terms), and groupers (56%, 35% in real terms) had the largest increases, while tunas (-12%, -24% in real terms) had the largest decreases. From 2019 to 2020, menhaden (21%), blue crab (13%), and mullets (1%) had the largest increases, while tunas (-17%), spiny lobster (-10%), and groupers (-5%) 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.<sup>3,4,5</sup>

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 2020 were estimated using IMPLAN version 3, with base year data from 2017. Models for each

<sup>3</sup> Atlantic and Gulf recreational catch and effort estimates are based upon the MRIP estimates released in 2018.

<sup>4</sup> Louisiana harvest and release totals for 2014-2020 are estimated using data from a state creel survey.

<sup>5</sup> 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](http://www.tpwd.state.tx.us).]

state and for the nation were created in IMPLAN using trip expenditures (based on 2016/2017 survey data on average trip expenditures and total 2020 trips).

The greatest employment impacts from expenditures on saltwater recreational fishing in the Gulf of Mexico Region were generated in West Florida (26,493 jobs), followed by Alabama (7,681 jobs) and Louisiana (5,607 jobs). The largest sales impacts were observed in West Florida (\$2.9 billion), followed by Alabama (\$766.9 million) and Louisiana (\$662.3 million). The biggest income impacts were generated in West Florida (\$988.6 million), followed by Alabama (\$223.6 million) and Louisiana (\$210.2 million). The greatest value-added impacts were in West Florida (\$1.8 billion), followed by Alabama (\$452.4 million) and Louisiana (\$383 million).

A large portion of the approximately 3.6 billion in trip expenses came from trips in the private boat (43.3%) and shore (42.1%) sectors.

## Participation

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

## Fishing Trips

In 2020, recreational fishermen took 56.8 million fishing trips in the Gulf of Mexico Region.<sup>8</sup> This number represented a 9% decrease from 2011 and a 14% increase from 2019. The largest proportions of trips were taken in the shore mode (55%) and private boat (42%). States with the highest number of recorded trips in the Gulf of Mexico Region were West Florida (42.2 million trips) and Alabama (6.6 million trips).

## Harvest and Release Trends

Of the Gulf of Mexico Region's key species and species groups, spotted seatrout (26.9 million fish), red drum (10.5 million fish), and Atlantic croaker (10.4 million fish) were most frequently caught by recreational fishermen. The following text box shows the species with the largest

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

From 2011 to 2020, there were no increases in the combined total of harvest and released for any of the key species. Southern flounder (-81%), sand and silver seatrouts (-64%), and Gulf and southern kingfish (-44%) had the largest decreases. From 2019 to 2020, sheepshead (21%) and sand and silver seatrouts (0.9%) had the largest increases, while Spanish mackerel (-46%), red snapper (-30%), and Gulf and southern kingfish (-25%) had the largest decreases.

### Harvest and Release: Largest Increases

*From 2011:*

- There were no percent increases.

*From 2019:*

- Sheepshead (21%)
- Sand and silver seatrouts (0.9%)

### Harvest and Release: Largest Decreases

*From 2011:*

- Southern flounder (-81%)
- Sand and silver seatrouts (-64%)
- Gulf and southern kingfish (-44%)

*From 2019:*

- Spanish mackerel (-46%)
- Red snapper (-30%)
- Gulf and southern kingfish (-25%)

## 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.<sup>9</sup>

<sup>6</sup> 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.

<sup>7</sup> 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.]

<sup>8</sup> Texas Trip estimates are not available for the shore mode. Shore mode in Louisiana has been included in the private mode since 2014.

<sup>9</sup> 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/USAGDPDEFAISME1>).

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.<sup>10</sup> 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 4.75. Mississippi had a CFLQ value of 4.39.

In 2019, 1.5 million employer establishments operated throughout the entire Gulf of Mexico Region (including marine and non-marine related establishments). These establishments employed 24.4 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 \$3.6 trillion in 2019.

### Seafood Sales and Processing<sup>11</sup>

**Seafood Product Preparation and Packaging:** In 2019, the Gulf of Mexico Region had 125 employer firms in the seafood product preparation and packaging sector (a 9% increase from 2011). The greatest number of establishments in this sector was in Louisiana (34), followed by Texas (30) and West Florida (25).

**Retail Seafood Sales:** In 2019, the Gulf of Mexico Region had 362 employer firms in the seafood retail sector (a 5% increase from 2011). The greatest number of establishments in this sector was in West Florida (170), followed by Louisiana (96) and Texas (49).

**Wholesale Seafood Sales:** There were 468 employer firms in the seafood wholesale sector in the Gulf of Mexico Region in 2019 (remains unchanged from 2011).

The greatest number of establishments in this sector was in West Florida (241), followed by Louisiana (110) and Texas (89).

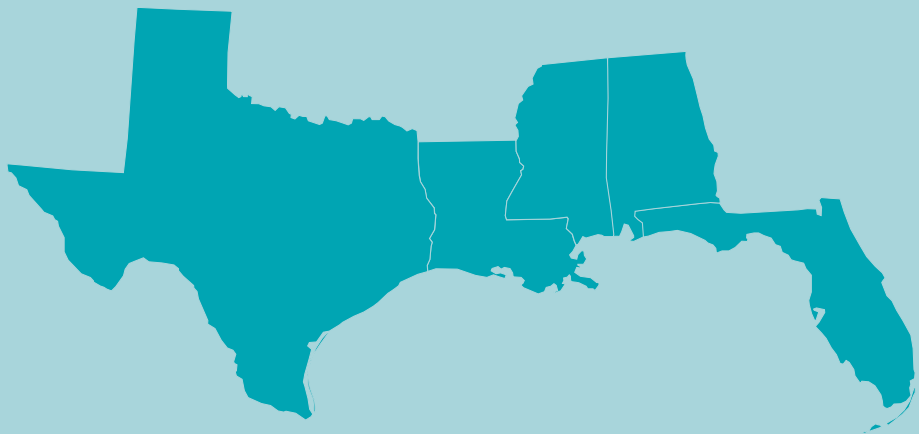
### Transportation Support and Marine Operations

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 2019, the ship and boat building sector in the Gulf of Mexico Region accounted for \$3 billion in payroll.

<sup>10</sup> U.S. Bureau of Labor Statistics, 'Location Quotient Calculator.'

<sup>11</sup> This report has provided economic statistics (number of firms and annual receipts) for non-employer firms in the seafood sales and processing sectors in previous volumes. Currently, this information is not available from the Census Bureau for 2019.

# Tables | Gulf of Mexico Region





2020 Economic Impacts of the Gulf of Mexico Seafood Industry (thousands of dollars; number of jobs)

| State       | Landings Revenue | With Imports |            |           |             | Without Imports |           |         |             |
|-------------|------------------|--------------|------------|-----------|-------------|-----------------|-----------|---------|-------------|
|             |                  | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales     | Income  | Value Added |
| Alabama     | 66,572           | 11,475       | 560,378    | 222,965   | 291,716     | 11,402          | 549,999   | 220,398 | 287,796     |
| Florida     | 212,358          | 76,685       | 18,501,239 | 3,451,325 | 6,179,998   | 8,231           | 863,421   | 226,859 | 348,384     |
| Louisiana   | 262,965          | 22,371       | 1,353,405  | 508,582   | 687,828     | 21,929          | 1,256,871 | 489,056 | 655,001     |
| Mississippi | 51,988           | 6,459        | 346,873    | 136,974   | 177,125     | 6,431           | 342,393   | 135,868 | 175,443     |
| Texas       | 195,628          | 35,517       | 4,900,200  | 1,201,802 | 1,897,752   | 15,296          | 1,078,693 | 398,152 | 555,106     |

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

| Category            | 2011    | 2012    | 2013    | 2014      | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|
| Total               | 805,149 | 781,200 | 930,359 | 1,057,002 | 853,585 | 888,975 | 872,931 | 890,435 | 816,050 | 732,461 |
| Finfish             | 193,664 | 189,959 | 200,596 | 206,767   | 246,370 | 258,415 | 181,177 | 219,414 | 205,976 | 194,196 |
| Shellfish and Other | 611,485 | 591,241 | 729,762 | 850,235   | 607,215 | 630,560 | 691,753 | 671,021 | 610,075 | 538,265 |
| Key Species         | -       | -       | -       | -         | -       | -       | -       | -       | -       | -       |
| Blue crab           | 48,943  | 52,538  | 62,042  | 79,679    | 74,567  | 65,569  | 69,146  | 76,392  | 69,605  | 69,730  |
| Crawfish            | 9,887   | 8,291   | 16,457  | 16,144    | 6,852   | 12,373  | 12,105  | 12,550  | 13,169  | 10,995  |
| Groupers            | 19,932  | 24,672  | 24,910  | 30,435    | 27,693  | 28,746  | 22,287  | 19,692  | 21,044  | 20,582  |
| Menhaden            | 103,523 | 87,377  | 90,706  | 93,267    | 138,628 | 143,342 | 72,202  | 116,530 | 102,448 | 105,097 |
| Mulletts            | 10,395  | 8,753   | 13,552  | 11,715    | 7,654   | 8,560   | 6,668   | 5,879   | 5,229   | 4,169   |
| Oysters             | 64,908  | 76,025  | 75,552  | 90,240    | 96,093  | 86,217  | 110,900 | 104,074 | 87,929  | 59,026  |
| Red snapper         | 11,109  | 13,319  | 20,253  | 22,527    | 26,792  | 25,843  | 28,374  | 28,675  | 32,161  | 30,837  |
| Shrimp              | 421,762 | 401,797 | 497,398 | 577,479   | 345,569 | 390,430 | 434,005 | 398,359 | 371,027 | 341,418 |
| Spiny lobster       | 35,568  | 22,249  | 47,116  | 53,416    | 44,059  | 41,311  | 31,944  | 43,629  | 30,045  | 22,144  |
| Tunas               | 5,518   | 10,726  | 7,345   | 5,153     | 4,585   | 5,699   | 5,153   | 3,711   | 2,466   | 1,760   |

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)<sup>1</sup>

| Category            | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total               | 1,768,543 | 1,668,976 | 1,351,768 | 1,243,777 | 1,553,491 | 1,737,033 | 1,401,776 | 1,543,219 | 1,407,081 | 1,208,955 |
| Finfish             | 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 | 955,909   |
| Shellfish and Other | 325,979   | 318,513   | 310,625   | 323,166   | 300,512   | 303,012   | 318,994   | 316,743   | 273,228   | 253,046   |
| Key Species         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| Blue crab           | 55,688    | 53,747    | 47,119    | 51,643    | 52,623    | 51,991    | 54,468    | 53,191    | 49,422    | 43,703    |
| Crawfish            | 9,582     | 6,834     | 19,641    | 13,055    | 5,461     | 13,573    | 8,575     | 11,178    | 9,406     | 7,971     |
| Groupers            | 7,026     | 8,329     | 7,701     | 8,991     | 7,824     | 7,951     | 5,871     | 4,679     | 4,509     | 4,637     |
| Menhaden            | 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 | 908,750   |
| Mulletts            | 14,256    | 12,210    | 13,899    | 15,163    | 10,858    | 11,430    | 9,317     | 8,237     | 7,057     | 5,568     |
| Oysters             | 19,092    | 21,200    | 19,526    | 17,513    | 16,633    | 15,272    | 17,705    | 15,329    | 12,956    | 9,070     |
| Red snapper         | 3,482     | 3,942     | 5,198     | 5,548     | 6,559     | 6,284     | 6,903     | 6,692     | 7,501     | 7,543     |
| Shrimp              | 216,852   | 217,589   | 204,215   | 217,012   | 203,613   | 204,478   | 223,240   | 221,546   | 187,321   | 175,250   |
| Spiny lobster       | 5,295     | 3,770     | 5,645     | 5,039     | 5,451     | 5,016     | 3,622     | 5,821     | 3,835     | 3,137     |
| Tunas               | 1,590     | 3,084     | 2,113     | 1,717     | 1,342     | 1,633     | 1,509     | 973       | 666       | 574       |

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

| Species       | 2011 | 2012 | 2013 | 2014  | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|-------|------|------|------|------|------|------|
| Blue crab     | 0.88 | 0.98 | 1.32 | 1.54  | 1.42 | 1.26 | 1.27 | 1.44 | 1.41 | 1.60 |
| Crawfish      | 1.03 | 1.21 | 0.84 | 1.24  | 1.25 | 0.91 | 1.41 | 1.12 | 1.40 | 1.38 |
| Groupers      | 2.84 | 2.96 | 3.23 | 3.39  | 3.54 | 3.62 | 3.80 | 4.21 | 4.67 | 4.44 |
| Menhaden      | 0.08 | 0.07 | 0.09 | 0.11  | 0.12 | 0.11 | 0.07 | 0.10 | 0.10 | 0.12 |
| Mulletts      | 0.73 | 0.72 | 0.98 | 0.77  | 0.70 | 0.75 | 0.72 | 0.71 | 0.74 | 0.75 |
| Oysters       | 3.40 | 3.59 | 3.87 | 5.15  | 5.78 | 5.65 | 6.26 | 6.79 | 6.79 | 6.51 |
| Red snapper   | 3.19 | 3.38 | 3.90 | 4.06  | 4.08 | 4.11 | 4.11 | 4.29 | 4.29 | 4.09 |
| Shrimp        | 1.94 | 1.85 | 2.44 | 2.66  | 1.70 | 1.91 | 1.94 | 1.80 | 1.98 | 1.95 |
| Spiny lobster | 6.72 | 5.90 | 8.35 | 10.60 | 8.08 | 8.24 | 8.82 | 7.49 | 7.83 | 7.06 |
| Tunas         | 3.47 | 3.48 | 3.48 | 3.00  | 3.42 | 3.49 | 3.41 | 3.81 | 3.70 | 3.06 |

<sup>1</sup> The information for Florida in this Economic Impacts table is for the entire state. Data for the remaining commercial tables pertain only to West Florida.

**2020 Economic Impacts of Gulf of Mexico Recreational Fishing (thousands of dollars; number of jobs)**

| State        | Trips  | Jobs   | Sales     | Income  | Value Added |
|--------------|--------|--------|-----------|---------|-------------|
| Alabama      | 6,623  | 7,681  | 766,928   | 223,555 | 452,350     |
| Louisiana    | 2,501  | 5,607  | 662,289   | 210,197 | 382,978     |
| Mississippi  | 4,298  | 1,317  | 117,198   | 39,034  | 72,584      |
| Texas        | 1,201  | 3,257  | 434,382   | 139,159 | 262,855     |
| West Florida | 42,198 | 26,493 | 2,910,805 | 988,644 | 1,843,038   |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore     |
|------------|----------|--------------|-----------|
| 3,594,877  | 525,153  | 1,556,954    | 1,512,770 |

**Recreational Anglers by Residential Area (thousands of anglers)<sup>1,2</sup>**

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Total Anglers | 3,048 | 3,071 | 3,373 | 2,859 | 2,635 | 2,704 | 2,612 | 1,806 | NA   | NA   |
| Coastal       | 2,737 | 2,803 | 2,973 | 2,674 | 2,437 | 2,445 | 2,316 | 1,572 | NA   | NA   |
| Non-Coastal   | 311   | 268   | 400   | 185   | 199   | 259   | 296   | 234   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)<sup>3</sup>**

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 62,732 | 67,560 | 69,151 | 52,602 | 50,495 | 54,287 | 58,514 | 55,585 | 49,890 | 56,821 |
| For-Hire     | 906    | 1,115  | 1,052  | 1,067  | 1,211  | 1,270  | 1,249  | 1,421  | 1,687  | 1,394  |
| Private Boat | 31,334 | 33,602 | 31,616 | 25,297 | 23,461 | 24,602 | 25,137 | 23,556 | 21,212 | 23,914 |
| Shore        | 30,492 | 32,843 | 36,483 | 26,239 | 25,823 | 28,414 | 32,128 | 30,607 | 26,991 | 31,512 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>4,5</sup>**

| Species                   | Category | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Atlantic croaker          | H        | 4,765  | 3,100  | 4,640  | 5,995  | 3,323  | 2,213  | 3,401  | 3,875  | 3,126  | 3,476  |
|                           | R        | 13,084 | 8,842  | 7,303  | 5,307  | 5,857  | 5,372  | 11,053 | 11,481 | 9,132  | 6,920  |
| Gulf and South kingfish   | H        | 2,250  | 3,378  | 4,071  | 1,647  | 2,530  | 4,247  | 3,898  | 3,634  | 1,064  | 1,429  |
|                           | R        | 1,300  | 1,492  | 1,208  | 1,120  | 703    | 1,936  | 2,134  | 1,269  | 1,594  | 564    |
| Red drum                  | H        | 7,316  | 5,908  | 7,615  | 1,582  | 1,984  | 1,845  | 1,737  | 1,661  | 1,791  | 1,522  |
|                           | R        | 14,072 | 14,547 | 17,579 | 7,256  | 8,064  | 7,128  | 7,074  | 8,203  | 11,671 | 8,935  |
| Red snapper               | H        | 1,511  | 1,516  | 2,424  | 977    | 1,288  | 1,568  | 2,950  | 2,159  | 2,434  | 1,884  |
|                           | R        | 5,818  | 4,463  | 5,630  | 4,205  | 3,455  | 6,650  | 9,270  | 6,190  | 6,713  | 4,537  |
| Sand and silver seatrouts | H        | 11,139 | 11,092 | 6,368  | 4,675  | 5,760  | 5,810  | 9,206  | 5,460  | 3,760  | 3,975  |
|                           | R        | 5,594  | 5,597  | 3,614  | 1,466  | 2,567  | 2,767  | 6,074  | 2,805  | 2,253  | 2,093  |
| Sheepshead                | H        | 6,100  | 4,837  | 3,257  | 2,465  | 2,427  | 2,036  | 4,203  | 2,317  | 1,565  | 1,972  |
|                           | R        | 4,029  | 3,921  | 5,081  | 3,683  | 3,848  | 2,320  | 4,159  | 5,265  | 3,393  | 4,034  |
| Southern flounder         | H        | 1,888  | 1,529  | 2,309  | 480    | 368    | 500    | 294    | 263    | 373    | 275    |
|                           | R        | 541    | 659    | 639    | 214    | 337    | 203    | 56     | 298    | 115    | 175    |
| Spanish mackerel          | H        | 4,882  | 5,482  | 9,000  | 4,479  | 5,491  | 5,586  | 6,369  | 4,748  | 8,321  | 4,067  |
|                           | R        | 6,370  | 4,616  | 11,855 | 6,157  | 4,236  | 2,762  | 7,935  | 6,153  | 9,900  | 5,805  |
| Spotted seatrout          | H        | 26,973 | 27,529 | 23,992 | 5,089  | 6,633  | 9,199  | 6,924  | 6,425  | 5,275  | 4,125  |
|                           | R        | 43,436 | 47,941 | 43,650 | 18,523 | 19,787 | 29,400 | 30,569 | 19,870 | 18,928 | 22,800 |
| Striped mullet            | H        | 4,397  | 6,239  | 7,848  | 6,210  | 6,987  | 5,629  | 4,554  | 6,112  | 3,672  | 3,924  |
|                           | R        | 666    | 536    | 557    | 1,416  | 382    | 1,195  | 147    | 976    | 596    | 163    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> West Florida anglers estimates are not available for the non-coastal category.

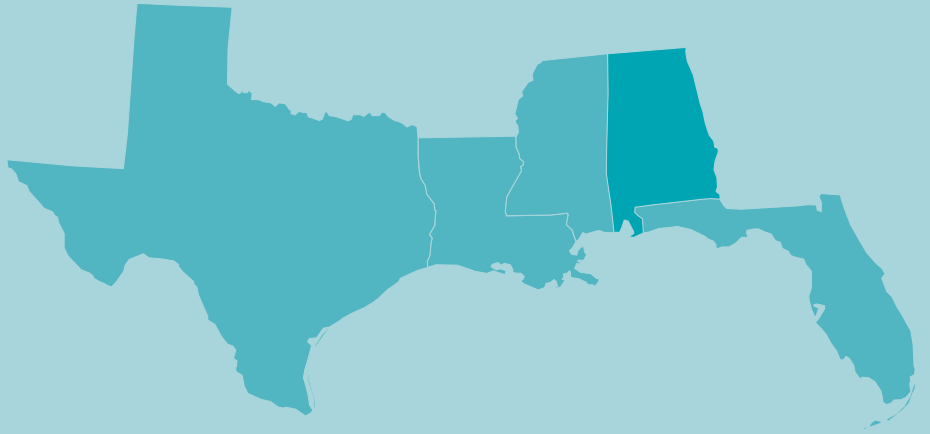
<sup>3</sup> Texas trip estimates are not available for the shore mode.

<sup>4</sup> 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](http://www.tpwd.state.tx.us).]

<sup>5</sup> 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 | Alabama



2020 Economic Impacts of the Alabama Seafood Industry (thousands of dollars; number of jobs)<sup>1,2</sup>

| Sector                               | With Imports |         |         |             | Without Imports |         |         |             |
|--------------------------------------|--------------|---------|---------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales   | Income  | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 11,475       | 560,378 | 222,965 | 291,716     | 11,402          | 549,999 | 220,398 | 287,796     |
| Commercial Harvesters                | 1,901        | 109,963 | 32,576  | 48,539      | 1,901           | 109,963 | 32,576  | 48,539      |
| Seafood Processors and Dealers       | 1,907        | 144,400 | 56,562  | 71,878      | 1,859           | 140,746 | 55,131  | 70,059      |
| Importers                            | 20           | 6,511   | 1,044   | 1,985       | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 173          | 9,739   | 3,414   | 4,398       | 172             | 9,697   | 3,399   | 4,379       |
| Retail                               | 7,475        | 289,765 | 129,369 | 164,917     | 7,470           | 289,593 | 129,292 | 164,819     |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 49,995 | 44,942 | 50,777 | 62,843 | 43,165 | 50,820 | 56,222 | 67,670 | 57,662 | 66,572 |
| Finfish             | 3,883  | 4,821  | 4,433  | 4,376  | 4,046  | 4,437  | 3,978  | 4,431  | 4,645  | 3,147  |
| Shellfish and Other | 46,112 | 40,121 | 46,344 | 58,467 | 39,119 | 46,383 | 52,244 | 63,239 | 53,017 | 63,424 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Blue crab           | 1,128  | 1,044  | 1,037  | 1,296  | 1,226  | 1,785  | 1,520  | 1,150  | 1,404  | 901    |
| King mackerel       | 207    | 220    | 439    | 416    | 344    | 281    | 121    | 143    | 190    | 133    |
| Menhaden            | 58     | 84     | 104    | 147    | 154    | 164    | 158    | 173    | 71     | 69     |
| Mulletts            | 695    | 1,266  | 1,181  | 1,123  | 761    | 522    | 537    | 591    | 392    | 348    |
| Oysters             | 1,322  | 1,255  | 786    | 433    | 341    | 601    | 557    | 914    | 1,543  | 2,426  |
| Red snapper         | 314    | 316    | 401    | 697    | 1,443  | 1,423  | 1,852  | 1,559  | 2,024  | 1,511  |
| Sharks              | 26     | 6      | 202    | 116    | NA     | 0      | 71     | 122    | NA     | NA     |
| Shrimp              | 43,608 | 37,720 | 44,427 | 56,712 | 37,533 | 43,973 | 50,138 | 61,038 | 50,020 | 59,802 |
| Spanish mackerel    | 582    | 1,149  | 940    | 471    | 705    | 833    | 439    | 670    | 577    | 288    |
| Vermilion snapper   | 622    | 393    | 88     | 385    | 247    | 242    | 267    | 277    | 482    | 248    |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 25,621 | 25,553 | 21,648 | 23,718 | 22,773 | 24,579 | 26,737 | 35,353 | 26,021 | 29,803 |
| Finfish             | 4,735  | 6,095  | 5,410  | 5,126  | 3,754  | 4,422  | 4,029  | 5,773  | 4,102  | 2,527  |
| Shellfish and Other | 20,886 | 19,458 | 16,238 | 18,592 | 19,018 | 20,157 | 22,709 | 29,579 | 21,919 | 27,276 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Blue crab           | 1,617  | 1,325  | 1,027  | 1,161  | 1,301  | 1,918  | 1,425  | 1,034  | 1,516  | 915    |
| King mackerel       | 119    | 117    | 175    | 184    | 146    | 112    | 53     | 59     | 79     | 51     |
| Menhaden            | 364    | 521    | 496    | 700    | 695    | 804    | 1,052  | 1,713  | 745    | 332    |
| Mulletts            | 1,270  | 2,002  | 1,795  | 1,907  | 1,385  | 952    | 990    | 1,250  | 829    | 715    |
| Oysters             | 296    | 265    | 133    | 58     | 26     | 37     | 26     | 25     | 141    | 196    |
| Red snapper         | 78     | 78     | 108    | 180    | 356    | 320    | 410    | 360    | 452    | 323    |
| Sharks              | 75     | 18     | 312    | 193    | NA     | 2      | 153    | 201    | NA     | NA     |
| Shrimp              | 18,840 | 17,603 | 14,883 | 17,339 | 17,665 | 18,171 | 21,224 | 28,309 | 20,204 | 25,215 |
| Spanish mackerel    | 839    | 1,377  | 972    | 431    | 617    | 859    | 440    | 948    | 742    | 309    |
| Vermilion snapper   | 224    | 132    | 28     | 124    | 74     | 76     | 80     | 83     | 146    | 74     |

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

| Species           | 2011 | 2012 | 2013 | 2014 | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-------------------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Blue crab         | 0.70 | 0.79 | 1.01 | 1.12 | 0.94  | 0.93  | 1.07  | 1.11  | 0.93  | 0.98  |
| King mackerel     | 1.74 | 1.89 | 2.51 | 2.26 | 2.35  | 2.50  | 2.29  | 2.44  | 2.42  | 2.60  |
| Menhaden          | 0.16 | 0.16 | 0.21 | 0.21 | 0.22  | 0.20  | 0.15  | 0.10  | 0.09  | 0.21  |
| Mulletts          | 0.55 | 0.63 | 0.66 | 0.59 | 0.55  | 0.55  | 0.54  | 0.47  | 0.47  | 0.49  |
| Oysters           | 4.47 | 4.73 | 5.91 | 7.43 | 12.96 | 16.36 | 21.21 | 36.13 | 10.91 | 12.40 |
| Red snapper       | 4.04 | 4.05 | 3.70 | 3.86 | 4.05  | 4.45  | 4.52  | 4.33  | 4.48  | 4.68  |
| Sharks            | 0.35 | 0.33 | 0.65 | 0.60 | NA    | 0.11  | 0.46  | 0.61  | NA    | NA    |
| Shrimp            | 2.31 | 2.14 | 2.99 | 3.27 | 2.12  | 2.42  | 2.36  | 2.16  | 2.48  | 2.37  |
| Spanish mackerel  | 0.69 | 0.83 | 0.97 | 1.09 | 1.14  | 0.97  | 1.00  | 0.71  | 0.78  | 0.93  |
| Vermilion snapper | 2.78 | 2.97 | 3.12 | 3.11 | 3.33  | 3.19  | 3.34  | 3.32  | 3.30  | 3.35  |

<sup>1</sup> 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.

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Alabama Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 773   | 71,489  | 22,422  | 39,310      |
| Private Boat                 | 1,291 | 140,845 | 35,428  | 91,024      |
| Shore                        | 5,617 | 554,594 | 165,706 | 322,016     |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 7,681 | 766,928 | 223,555 | 452,350     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 608,473    | 47,085   | 141,903      | 419,485 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|-------|------|------|------|------|------|------|------|
| Total Anglers | 907  | 723  | 1,052 | 853  | 831  | 915  | 911  | 917  | NA   | NA   |
| Coastal       | 295  | 254  | 279   | 220  | 225  | 274  | 186  | 211  | NA   | NA   |
| Non-Coastal   | 177  | 131  | 224   | 123  | 151  | 176  | 246  | 156  | NA   | NA   |
| Out-of-State  | 435  | 339  | 549   | 510  | 455  | 465  | 480  | 551  | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 5,738 | 6,151 | 6,769 | 6,482 | 6,830 | 7,320 | 8,493 | 6,681 | 6,677 | 6,623 |
| For-Hire     | 77    | 59    | 90    | 87    | 96    | 104   | 93    | 95    | 136   | 94    |
| Private Boat | 2,288 | 2,114 | 2,155 | 2,037 | 2,080 | 2,010 | 2,540 | 1,833 | 1,742 | 1,999 |
| Shore        | 3,373 | 3,978 | 4,524 | 4,357 | 4,653 | 5,206 | 5,860 | 4,753 | 4,799 | 4,530 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3</sup>**

| Species           | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic croaker  | H        | 1,844 | 544   | 860   | 2,844 | 2,003 | 559   | 1,522 | 1,771 | 765   | 727   |
|                   | R        | 4,659 | 2,011 | 2,016 | 3,605 | 3,468 | 1,393 | 6,101 | 4,870 | 3,813 | 3,126 |
| Bluefish          | H        | 398   | 210   | 362   | 173   | 109   | 690   | 105   | 93    | 373   | 1,044 |
|                   | R        | 688   | 581   | 1,554 | 722   | 408   | 3,705 | 651   | 559   | 772   | 946   |
| Kingfish          | H        | 1,408 | 646   | 2,545 | 850   | 1,082 | 916   | 1,756 | 2,047 | 645   | 524   |
|                   | R        | 659   | 240   | 691   | 389   | 371   | 734   | 1,327 | 1,008 | 1,325 | 388   |
| Red drum          | H        | 343   | 323   | 451   | 290   | 413   | 386   | 387   | 378   | 358   | 224   |
|                   | R        | 244   | 808   | 1,130 | 861   | 493   | 604   | 989   | 1,297 | 751   | 727   |
| Red snapper       | H        | 604   | 403   | 757   | 364   | 630   | 646   | 1,249 | 824   | 967   | 862   |
|                   | R        | 1,434 | 549   | 1,477 | 2,018 | 1,366 | 2,834 | 2,397 | 1,720 | 1,878 | 1,575 |
| Sand seatrout     | H        | 3,379 | 2,277 | 1,078 | 1,431 | 2,315 | 1,894 | 2,639 | 2,268 | 1,543 | 1,319 |
|                   | R        | 1,384 | 828   | 601   | 740   | 715   | 1,043 | 3,300 | 652   | 1,164 | 887   |
| Sheepshead        | H        | 1,113 | 1,065 | 493   | 335   | 845   | 283   | 569   | 310   | 214   | 544   |
|                   | R        | 372   | 117   | 104   | 41    | 660   | 71    | 43    | 184   | 309   | 363   |
| Southern flounder | H        | 318   | 242   | 194   | 123   | 104   | 139   | 101   | 83    | 25    | 41    |
|                   | R        | 101   | 121   | 102   | 74    | 110   | 85    | 12    | 49    | 3     | 6     |
| Spanish mackerel  | H        | 1,309 | 1,478 | 2,921 | 477   | 2,240 | 1,772 | 2,529 | 1,601 | 3,752 | 596   |
|                   | R        | 447   | 477   | 2,496 | 162   | 1,054 | 355   | 1,233 | 1,362 | 3,985 | 168   |
| Spotted seatrout  | H        | 1,455 | 1,396 | 1,299 | 574   | 1,228 | 1,464 | 891   | 839   | 285   | 267   |
|                   | R        | 2,572 | 2,030 | 2,009 | 581   | 2,354 | 2,711 | 1,567 | 1,511 | 887   | 1,072 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.<sup>3</sup> Kingfish include southern kingfish and Gulf kingfish.

2019 Alabama State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 100,731 (1.3%)                      | 1,758,609 (1.3%)               | 79.5 (1.1%)                          | 127 (1.1%)                                  | 231                                       | 0.46                                 |

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

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 67    | 47    | 58    | 57    | 49    | 38    | 44    | 41    | NA   |
|   | Receipts  | 4,354 | 1,965 | 3,069 | 3,446 | 2,901 | 3,365 | 3,362 | 3,661 | NA   |
| Seafood sales, retail                     | Firms     | 58    | 68    | 66    | 55    | 46    | 43    | 48    | 49    | NA   |
|   | Receipts  | 4,759 | 7,073 | 5,520 | 4,351 | 3,274 | 2,971 | 3,602 | 4,164 | NA   |

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

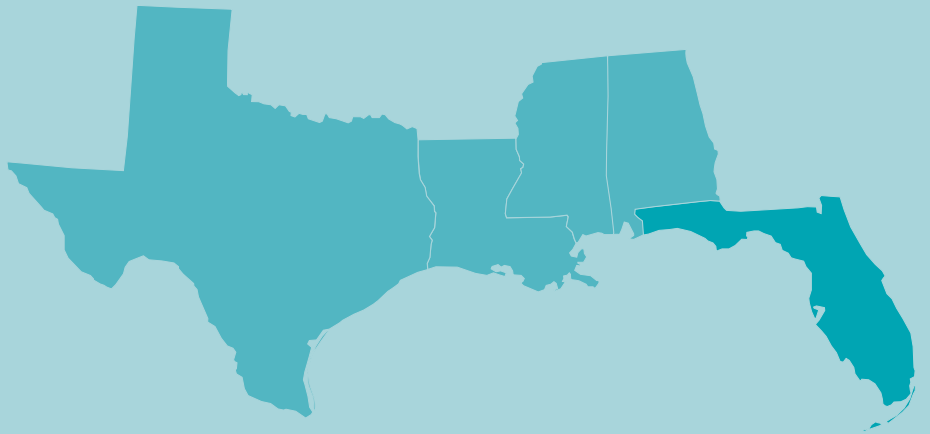
| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 16     | 17     | 22     | 23     | 20     | 20     | 20     | 19     | 19     |
|   | Employees      | 882    | 778    | 989    | 963    | 961    | 900    | 892    | 918    | 1,105  |
|   | Payroll        | 21,922 | 19,730 | 22,641 | 23,973 | 25,951 | 27,924 | 25,272 | 29,971 | 28,441 |
| Seafood Sales, Wholesale                  | Establishments | 25     | 16     | 18     | 18     | 21     | 17     | 16     | 15     | 14     |
|   | Employees      | 321    | 306    | 281    | 388    | 378    | 412    | 280    | 309    | 244    |
| Seafood sales, retail                     | Payroll        | 6,547  | 6,221  | 6,861  | 9,321  | 10,034 | 10,487 | 5,629  | 6,304  | 8,312  |
|   | Establishments | 32     | 32     | 28     | 31     | 32     | 32     | 37     | 36     | 38     |
|   | Employees      | 120    | 189    | 219    | 200    | 234    | 255    | 157    | 178    | 218    |
|   | Payroll        | 1,888  | 2,990  | 3,267  | 3,330  | 3,706  | 4,013  | 3,040  | 3,251  | 3,417  |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 35      | 37      | 38      | 37      | 41      | 43      | 35      | 35      | 37      |
|  | Employees      | 3,176   | 4,936   | 5,948   | 5,904   | 6,049   | 6,025   | 5,748   | 5,403   | 5,958   |
|  | Payroll        | 166,116 | 251,063 | 303,016 | 311,296 | 342,082 | 342,073 | 341,849 | 337,504 | 419,519 |
| Deep Sea Freight Transportation                | Establishments | 6       | 5       | 5       | 2       | 2       | 1       | NA      | NA      | NA      |
|  | Employees      | ds      | ds      | ds      | ds      | ds      | ds      | NA      | NA      | NA      |
|  | Payroll        | ds      | ds      | ds      | ds      | ds      | ds      | NA      | NA      | NA      |
| Deep Sea Passenger Transportation              | Establishments | 2       | 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 | 5       | 4       | 5       | 5       | 4       | 4       | 8       | 8       | 6       |
|  | Employees      | 215     | ds      | ds      | 45      | ds      | ds      | 56      | 51      | 45      |
|  | Payroll        | 13,117  | ds      | ds      | 2,617   | ds      | ds      | 4,066   | 4,158   | 4,957   |
| Port and Harbor Operations                     | Establishments | 3       | 6       | 3       | 2       | 2       | 2       | 7       | 8       | 7       |
|  | Employees      | ds      | 101     | 4       | ds      | ds      | ds      | 62      | 141     | 142     |
|  | Payroll        | ds      | 5,788   | 160     | ds      | ds      | ds      | 3,704   | 7,965   | 8,358   |
| Marine Cargo Handling                          | Establishments | 19      | 10      | 13      | 13      | 14      | 15      | 12      | 13      | 15      |
|  | Employees      | 536     | ds      | 554     | 778     | 666     | 709     | 574     | 1,004   | 1,028   |
|  | Payroll        | 34,998  | ds      | 34,481  | 37,273  | 37,154  | 47,407  | 44,177  | 64,036  | 68,308  |
| Navigational Services to Shipping              | Establishments | 16      | 14      | 12      | 16      | 14      | 14      | 22      | 20      | 19      |
|  | Employees      | 283     | 241     | 208     | 124     | 121     | 113     | 293     | 278     | 173     |
|  | Payroll        | 14,981  | 8,808   | 14,761  | 6,902   | 6,922   | 5,911   | 17,849  | 21,093  | 12,003  |
| Marinas  | Establishments | 53      | 57      | 54      | 54      | 57      | 57      | 56      | 56      | 57      |
|  | Employees      | ds      | 329     | 332     | 343     | 387     | 372     | 482     | 467     | 506     |
|  | Payroll        | 12,196  | 10,253  | 9,659   | 9,804   | 11,182  | 12,086  | 15,065  | 14,633  | 16,800  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.<sup>3</sup> ds = Data are suppressed.

# Tables | West Florida





**2020 Economic Impacts of the Florida Seafood Industry (thousands of dollars; number of jobs)<sup>1,2,3</sup>**

| Sector                               | With Imports |            |           |             | Without Imports |         |         |             |
|--------------------------------------|--------------|------------|-----------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales      | Income    | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 76,685       | 18,501,239 | 3,451,325 | 6,179,998   | 8,231           | 863,421 | 226,859 | 348,384     |
| Commercial Harvesters                | 5,361        | 423,022    | 131,375   | 175,246     | 5,361           | 423,022 | 131,375 | 175,246     |
| Seafood Processors and Dealers       | 4,466        | 860,979    | 166,625   | 327,569     | 440             | 91,060  | 17,623  | 34,645      |
| Importers                            | 40,872       | 13,532,605 | 2,168,858 | 4,125,331   | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 9,853        | 1,350,774  | 530,309   | 659,774     | 362             | 49,672  | 19,501  | 24,262      |
| Retail                               | 16,134       | 2,333,859  | 454,157   | 892,078     | 2,067           | 299,668 | 58,359  | 114,231     |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 168,796 | 153,486 | 190,811 | 212,082 | 196,525 | 186,321 | 185,933 | 190,602 | 173,129 | 155,309 |
| Finfish             | 59,652  | 62,378  | 69,868  | 71,546  | 65,077  | 67,970  | 64,482  | 58,294  | 58,622  | 53,512  |
| Shellfish and Other | 109,143 | 91,107  | 120,943 | 140,537 | 131,448 | 118,351 | 121,452 | 132,307 | 114,508 | 101,797 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Blue crab           | 7,829   | 5,490   | 6,791   | 7,406   | 8,508   | 6,596   | 7,194   | 8,884   | 9,748   | 8,110   |
| Gag                 | 1,439   | 2,445   | 2,846   | 2,889   | 2,783   | 4,671   | 2,556   | 2,763   | 3,205   | 2,817   |
| Lobsters            | 35,575  | 22,257  | 47,125  | 53,420  | 44,062  | 41,316  | 31,947  | 43,632  | 30,053  | 22,149  |
| Mullet              | 8,649   | 6,192   | 11,409  | 9,389   | 6,181   | 6,988   | 5,009   | 4,499   | 4,209   | 3,255   |
| Oyster              | 8,776   | 9,887   | 5,920   | 4,179   | 4,722   | 5,163   | 5,179   | 3,169   | 2,756   | 2,219   |
| Quahog clam         | 1,003   | 805     | 1,141   | 221     | 191     | 58      | 117     | 73      | 114     | 120     |
| Red grouper         | 15,086  | 16,761  | 16,428  | 21,219  | 18,952  | 17,881  | 14,158  | 11,258  | 10,691  | 12,087  |
| Red snapper         | 5,417   | 6,142   | 8,208   | 8,126   | 10,011  | 8,649   | 9,552   | 10,166  | 11,751  | 12,217  |
| Shrimp              | 27,255  | 23,831  | 30,452  | 42,790  | 34,663  | 31,189  | 44,136  | 41,417  | 34,454  | 35,010  |
| Stone crab          | 24,233  | 24,594  | 25,172  | 27,965  | 35,778  | 29,926  | 29,058  | 32,273  | 33,957  | 31,006  |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 83,986 | 76,041 | 75,134 | 81,547 | 74,794 | 72,931 | 75,192 | 71,657 | 66,575 | 63,931 |
| Finfish             | 38,234 | 40,620 | 38,284 | 40,311 | 34,359 | 38,946 | 36,241 | 30,752 | 30,386 | 24,381 |
| Shellfish and Other | 45,753 | 35,421 | 36,850 | 41,236 | 40,435 | 33,985 | 38,951 | 40,905 | 36,188 | 39,551 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Blue crab           | 6,924  | 4,463  | 4,767  | 4,467  | 4,880  | 3,871  | 4,411  | 5,465  | 6,016  | 4,404  |
| Gag                 | 369    | 613    | 687    | 689    | 642    | 1,076  | 575    | 576    | 623    | 558    |
| Lobsters            | 5,298  | 3,772  | 5,647  | 5,041  | 5,451  | 5,017  | 3,624  | 5,824  | 3,837  | 3,138  |
| Mullet              | 11,428 | 8,632  | 11,294 | 11,945 | 8,647  | 9,321  | 7,042  | 6,054  | 5,782  | 4,670  |
| Oyster              | 3,167  | 3,368  | 1,735  | 758    | 844    | 853    | 786    | 517    | 432    | 361    |
| Quahog clam         | 154    | 132    | 199    | 36     | 23     | 7      | 13     | 9      | 16     | 9      |
| Red grouper         | 5,635  | 6,151  | 5,479  | 6,630  | 5,672  | 5,304  | 3,921  | 2,801  | 2,386  | 2,809  |
| Red snapper         | 1,538  | 1,699  | 2,216  | 2,107  | 2,646  | 2,338  | 2,532  | 2,565  | 2,837  | 3,078  |
| Shrimp              | 11,930 | 9,493  | 11,007 | 12,877 | 13,386 | 12,153 | 19,429 | 20,252 | 16,177 | 19,037 |
| Stone crab          | 2,727  | 2,667  | 1,946  | 1,948  | 2,760  | 3,006  | 2,510  | 2,114  | 2,195  | 2,147  |

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

| Species     | 2011 | 2012 | 2013  | 2014  | 2015  | 2016 | 2017  | 2018  | 2019  | 2020  |
|-------------|------|------|-------|-------|-------|------|-------|-------|-------|-------|
| Blue crab   | 1.13 | 1.23 | 1.42  | 1.66  | 1.74  | 1.70 | 1.63  | 1.63  | 1.62  | 1.84  |
| Gag         | 3.90 | 3.99 | 4.14  | 4.19  | 4.33  | 4.34 | 4.45  | 4.79  | 5.14  | 5.04  |
| Lobsters    | 6.72 | 5.90 | 8.34  | 10.60 | 8.08  | 8.24 | 8.81  | 7.49  | 7.83  | 7.06  |
| Mullet      | 0.76 | 0.72 | 1.01  | 0.79  | 0.71  | 0.75 | 0.71  | 0.74  | 0.73  | 0.70  |
| Oyster      | 2.77 | 2.94 | 3.41  | 5.51  | 5.60  | 6.05 | 6.59  | 6.13  | 6.38  | 6.15  |
| Quahog clam | 6.51 | 6.08 | 5.74  | 6.20  | 8.17  | 7.82 | 8.65  | 7.67  | 7.14  | 13.01 |
| Red grouper | 2.68 | 2.73 | 3.00  | 3.20  | 3.34  | 3.37 | 3.61  | 4.02  | 4.48  | 4.30  |
| Red snapper | 3.52 | 3.62 | 3.70  | 3.86  | 3.78  | 3.70 | 3.77  | 3.96  | 4.14  | 3.97  |
| Shrimp      | 2.28 | 2.51 | 2.77  | 3.32  | 2.59  | 2.57 | 2.27  | 2.05  | 2.13  | 1.84  |
| Stone crab  | 8.89 | 9.22 | 12.94 | 14.36 | 12.97 | 9.96 | 11.58 | 15.27 | 15.47 | 14.44 |

<sup>1</sup> 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.

<sup>2</sup> The information for Florida in this Economic Impacts table is for the entire state. Data for the remaining commercial tables pertain only to West Florida.

<sup>3</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of West Florida Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs   | Sales     | Income  | Value Added |
|------------------------------|--------|-----------|---------|-------------|
| For-Hire                     | 5,076  | 555,584   | 193,335 | 330,846     |
| Private Boat                 | 8,753  | 963,175   | 326,089 | 621,424     |
| Shore                        | 12,664 | 1,392,046 | 469,220 | 890,768     |
| Total Durable Expenditures   | NA     | NA        | NA      | NA          |
| Total State Economic Impacts | 26,493 | 2,910,805 | 988,644 | 1,843,038   |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore   |
|------------|----------|--------------|---------|
| 2,127,360  | 313,415  | 839,530      | 974,416 |

**Recreational Anglers by Residential Area (thousands of anglers)<sup>2</sup>**

| Category      | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 | 2020 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Total Anglers | 3,216 | 3,859 | 4,351 | 4,365 | 3,813 | 3,699 | 3,783 | 3,238 | NA   | NA   |
| Coastal       | 1,592 | 1,718 | 1,813 | 1,649 | 1,414 | 1,393 | 1,400 | 1,193 | NA   | NA   |
| Non-Coastal   | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA   | NA   |
| Out-of-State  | 1,624 | 2,141 | 2,538 | 2,716 | 2,399 | 2,306 | 2,383 | 2,046 | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total Trips  | 40,063 | 44,998 | 46,293 | 38,625 | 35,730 | 38,936 | 41,840 | 40,996 | 35,645 | 42,198 |
| For-Hire     | 560    | 715    | 686    | 693    | 769    | 805    | 772    | 825    | 984    | 939    |
| Private Boat | 20,688 | 23,306 | 21,551 | 18,859 | 16,775 | 17,883 | 18,025 | 17,326 | 15,293 | 17,115 |
| Shore        | 18,815 | 20,977 | 24,056 | 19,073 | 18,186 | 20,249 | 23,043 | 22,845 | 19,367 | 24,143 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>3,4</sup>**

| Species                   | Category | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Common snook              | H        | 1      | 1      | 39     | 33     | 36     | 48     | 66     | 22     | 20     | 9      |
|                           | R        | 1,687  | 2,561  | 3,801  | 3,622  | 5,195  | 7,208  | 5,824  | 4,967  | 6,285  | 7,981  |
| Gag grouper               | H        | 313    | 282    | 466    | 327    | 278    | 214    | 279    | 304    | 250    | 342    |
|                           | R        | 3,597  | 2,680  | 2,663  | 2,057  | 1,289  | 2,122  | 3,354  | 2,267  | 2,431  | 3,139  |
| Gray snapper              | H        | 1,528  | 3,877  | 3,561  | 4,609  | 3,474  | 3,787  | 3,098  | 3,171  | 3,502  | 3,656  |
|                           | R        | 7,116  | 10,027 | 15,084 | 17,621 | 15,712 | 12,922 | 13,954 | 13,778 | 12,628 | 21,892 |
| King mackerel             | H        | 350    | 470    | 399    | 563    | 485    | 575    | 476    | 352    | 297    | 289    |
|                           | R        | 159    | 202    | 182    | 254    | 157    | 405    | 204    | 49     | 134    | 70     |
| Mullet                    | H        | 2,308  | 4,424  | 4,394  | 4,022  | 3,146  | 3,931  | 3,699  | 9,364  | 3,252  | 3,591  |
|                           | R        | 266    | 245    | 597    | 1,519  | 519    | 1,585  | 606    | 977    | 587    | 409    |
| Porgies (sheepshead)      | H        | 1,634  | 2,113  | 1,500  | 1,883  | 1,349  | 1,546  | 2,757  | 1,827  | 1,122  | 1,175  |
|                           | R        | 3,054  | 3,108  | 3,468  | 3,590  | 2,130  | 2,201  | 4,039  | 4,956  | 2,956  | 3,335  |
| Red drum                  | H        | 702    | 1,110  | 902    | 836    | 1,124  | 844    | 805    | 626    | 601    | 733    |
|                           | R        | 6,632  | 6,061  | 5,576  | 5,510  | 6,996  | 5,755  | 4,423  | 5,407  | 9,582  | 6,812  |
| Sand and silver seatrouts | H        | 2,424  | 4,387  | 2,139  | 1,279  | 959    | 521    | 1,463  | 598    | 486    | 501    |
|                           | R        | 856    | 2,309  | 675    | 420    | 1,434  | 665    | 1,052  | 364    | 217    | 168    |
| Spanish mackerel          | H        | 3,510  | 3,796  | 5,960  | 3,974  | 3,184  | 3,677  | 3,810  | 2,964  | 4,537  | 3,438  |
|                           | R        | 5,865  | 4,014  | 9,343  | 5,986  | 3,171  | 2,354  | 6,589  | 4,719  | 5,796  | 5,616  |
| Spotted seatrout          | H        | 3,821  | 4,493  | 3,657  | 2,714  | 2,730  | 3,299  | 3,680  | 3,467  | 2,790  | 2,317  |
|                           | R        | 28,685 | 29,785 | 20,134 | 16,124 | 15,691 | 22,996 | 24,949 | 16,301 | 15,212 | 19,182 |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> Non-coastal data are not available because all of the state's residents are considered coastal county residents.<sup>3</sup> 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](http://www.tpwd.state.tx.us).]<sup>4</sup> 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.

2019 Florida State Economy (percentage of national total)<sup>1,2,3</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 574,512 (7.2%)                      | 8,860,042 (6.7%)               | 427 (5.7%)                           | 603 (5.3%)                                  | 1,116                                     | 0.84                                 |

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)<sup>1</sup>

| Sector                                    | Statistic | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019 |
|---|-----------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Seafood product preparation and packaging | Firms     | 294    | 307    | 300    | 315    | 300    | 316    | 280    | 287    | NA   |
|   | Receipts  | 14,618 | 17,557 | 17,214 | 22,329 | 21,841 | 20,834 | 19,651 | 21,888 | NA   |
| Seafood sales, retail                     | Firms     | 362    | 383    | 338    | 346    | 355    | 320    | 316    | 349    | NA   |
|   | Receipts  | 29,037 | 30,765 | 25,332 | 26,433 | 29,033 | 24,296 | 27,937 | 30,559 | NA   |

Seafood Sales and Processing — Employer Establishments (thousands of dollars)<sup>1</sup>

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018    | 2019    |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| Seafood product preparation and packaging | Establishments | 24     | 27     | 25     | 27     | 27     | 23     | 23     | 22      | 25      |
|   | Employees      | 1,095  | 1,608  | 1,374  | 1,419  | 1,429  | 1,535  | 1,942  | 1,591   | 1,946   |
|   | Payroll        | 42,612 | 51,735 | 50,003 | 50,556 | 58,246 | 63,039 | 79,173 | 69,416  | 87,532  |
| Seafood Sales, Wholesale                  | Establishments | 250    | 226    | 234    | 233    | 242    | 239    | 230    | 232     | 241     |
|   | Employees      | 1,913  | 1,957  | 1,878  | 1,974  | 2,055  | 1,849  | 2,098  | 2,128   | 2,081   |
| Seafood sales, retail                     | Payroll        | 77,115 | 75,945 | 79,266 | 83,964 | 90,247 | 83,818 | 89,907 | 101,920 | 103,464 |
|   | Establishments | 145    | 151    | 165    | 166    | 181    | 191    | 176    | 186     | 170     |
|   | Employees      | 849    | 945    | 909    | 1,037  | 1,137  | 1,133  | 1,140  | 1,164   | 1,190   |
|   | Payroll        | 20,158 | 21,577 | 23,476 | 25,844 | 29,066 | 26,981 | 29,146 | 30,086  | 31,968  |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>4</sup>

| Sector   | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018      | 2019      |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|-----------|-----------|
| Ship and Boat Building                         | Establishments | 246     | 258     | 259     | 263     | 278     | 281     | 269     | 284       | 275       |
|  | Employees      | 7,909   | 8,621   | 8,813   | 9,608   | 10,913  | 11,170  | 11,114  | 10,767    | 11,195    |
|  | Payroll        | 325,942 | 374,831 | 390,853 | 448,514 | 488,050 | 512,454 | 516,473 | 533,913   | 568,549   |
| Deep Sea Freight Transportation                | Establishments | 65      | 75      | 69      | 77      | 76      | 65      | 58      | 64        | 55        |
|  | Employees      | 2,374   | 3,345   | 2,485   | 2,015   | 2,154   | 1,639   | 2,189   | 2,362     | 2,090     |
|  | Payroll        | 177,386 | 231,887 | 140,564 | 131,069 | 137,786 | 113,897 | 193,568 | 211,165   | 172,366   |
| Deep Sea Passenger Transportation              | Establishments | 29      | 39      | 31      | 28      | 32      | 33      | 38      | 39        | 41        |
|  | Employees      | ds      | ds      | ds      | ds      | 10,510  | 10,161  | 9,882   | 10,714    | 10,584    |
|  | Payroll        | ds      | ds      | ds      | ds      | 967,938 | 864,475 | 970,607 | 1,013,720 | 1,077,237 |
| Coastal and Great Lakes Freight Transportation | Establishments | 54      | 60      | 47      | 62      | 57      | 62      | 64      | 67        | 70        |
|  | Employees      | 753     | 1,381   | 1,050   | 1,743   | 1,815   | 1,966   | 2,245   | 2,176     | 2,089     |
|  | Payroll        | 53,341  | 100,402 | 82,078  | 175,366 | 173,004 | 199,592 | 242,810 | 243,498   | 262,702   |
| Port and Harbor Operations                     | Establishments | 32      | 66      | 61      | 56      | 55      | 54      | 50      | 50        | 50        |
|  | Employees      | 377     | 2,082   | 555     | 588     | 987     | 1,006   | 1,560   | 1,867     | 1,967     |
|  | Payroll        | 16,879  | 72,554  | 25,439  | 20,647  | 32,032  | 32,969  | 39,956  | 44,789    | 66,474    |
| Marine Cargo Handling                          | Establishments | 64      | 43      | 58      | 61      | 69      | 63      | 72      | 66        | 62        |
|  | Employees      | 7,484   | 4,598   | 6,258   | 6,992   | 7,834   | 7,048   | 6,269   | 6,733     | 7,418     |
|  | Payroll        | 195,458 | 86,461  | 188,997 | 179,024 | 208,186 | 191,828 | 210,284 | 228,818   | 234,200   |
| Navigational Services to Shipping              | Establishments | 150     | 151     | 180     | 190     | 196     | 194     | 226     | 223       | 222       |
|  | Employees      | 1,047   | 853     | 1,390   | 878     | 861     | 922     | 1,074   | 1,017     | 1,069     |
|  | Payroll        | 75,561  | 68,366  | 130,893 | 74,185  | 72,483  | 73,708  | 81,050  | 79,333    | 84,030    |
| Marinas  | Establishments | 411     | 432     | 444     | 464     | 466     | 458     | 450     | 450       | 471       |
|  | Employees      | 4,657   | 4,918   | 5,076   | 5,421   | 5,472   | 5,405   | 5,481   | 5,738     | 6,101     |
|  | Payroll        | 142,997 | 148,573 | 145,265 | 168,185 | 171,354 | 176,315 | 184,529 | 202,187   | 204,545   |

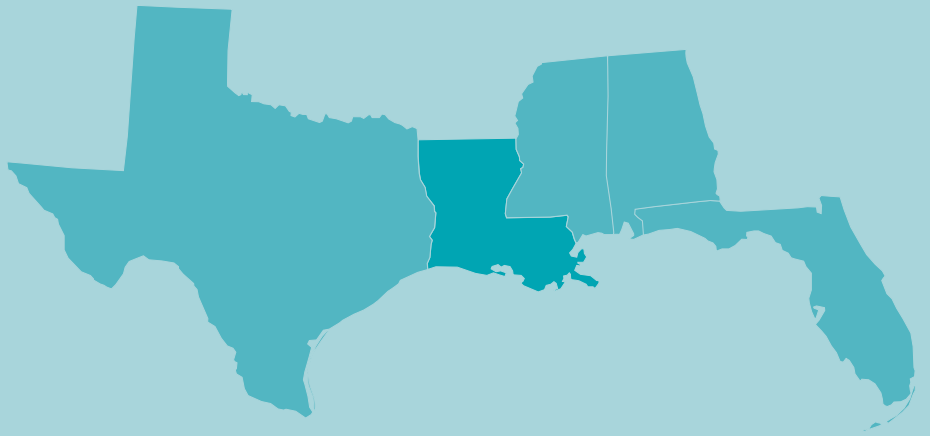
<sup>1</sup> All data presented on this page are for the entire state of Florida, not just West Florida.

<sup>2</sup> 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.

<sup>3</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>4</sup> ds = Data are suppressed.

# Tables | Louisiana



2020 Economic Impacts of the Louisiana Seafood Industry (thousands of dollars; number of jobs)<sup>1,2</sup>

| Sector                               | With Imports |           |         |             | Without Imports |           |         |             |
|--------------------------------------|--------------|-----------|---------|-------------|-----------------|-----------|---------|-------------|
|                                      | Jobs         | Sales     | Income  | Value Added | Jobs            | Sales     | Income  | Value Added |
| Total Impacts                        | 22,371       | 1,353,405 | 508,582 | 687,828     | 21,929          | 1,256,871 | 489,056 | 655,001     |
| Commercial Harvesters                | 8,383        | 491,307   | 166,926 | 244,489     | 8,383           | 491,307   | 166,926 | 244,489     |
| Seafood Processors and Dealers       | 1,892        | 191,043   | 74,101  | 94,519      | 1,815           | 183,303   | 71,100  | 90,690      |
| Importers                            | 238          | 78,813    | 12,631  | 24,026      | NA              | NA        | NA      | NA          |
| Seafood Wholesalers and Distributors | 677          | 88,383    | 30,109  | 38,975      | 631             | 82,396    | 28,070  | 36,335      |
| Retail                               | 11,181       | 503,860   | 224,814 | 285,819     | 11,099          | 499,865   | 222,961 | 283,487     |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 331,054 | 327,870 | 396,047 | 480,068 | 368,762 | 417,711 | 369,069 | 375,885 | 317,319 | 262,965 |
| Finfish             | 111,468 | 89,747  | 102,938 | 96,566  | 108,039 | 157,254 | 84,623  | 114,225 | 81,012  | 81,562  |
| Shellfish and Other | 219,586 | 238,123 | 293,108 | 383,503 | 260,723 | 260,457 | 284,446 | 261,660 | 236,307 | 181,403 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Blue crab           | 36,827  | 42,402  | 51,467  | 66,989  | 58,084  | 49,487  | 54,217  | 60,667  | 52,232  | 54,797  |
| Crawfish            | 9,887   | 8,291   | 16,457  | 16,144  | 6,852   | 12,373  | 12,105  | 12,550  | 13,169  | 10,995  |
| King mackerel       | 1,570   | 1,452   | 1,477   | 2,379   | 2,006   | 2,150   | 2,073   | 2,003   | 2,427   | 1,452   |
| Menhaden            | 93,547  | 64,861  | 80,325  | 72,832  | 85,439  | 132,105 | 60,909  | 90,315  | 60,347  | 66,442  |
| Mullets             | 775     | 976     | 626     | 916     | 418     | 720     | 757     | 389     | 132     | 2       |
| Oysters             | 41,086  | 41,981  | 43,832  | 64,665  | 81,806  | 62,236  | 84,417  | 75,973  | 50,134  | 23,754  |
| Red snapper         | 1,936   | 2,187   | 4,315   | 5,836   | 5,951   | 5,198   | 6,716   | 6,112   | 5,445   | 4,568   |
| Shrimp              | 131,393 | 145,103 | 181,053 | 235,420 | 113,711 | 136,128 | 133,299 | 112,016 | 120,385 | 91,739  |
| Tunas               | 3,369   | 7,906   | 4,594   | 3,418   | 2,837   | 4,290   | 2,583   | 2,324   | 1,813   | 1,216   |
| Vermilion snapper   | 505     | 662     | 473     | 688     | 619     | 914     | 821     | 699     | 581     | 254     |

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

| Category            | 2011      | 2012      | 2013    | 2014    | 2015      | 2016      | 2017    | 2018      | 2019    | 2020    |
|---------------------|-----------|-----------|---------|---------|-----------|-----------|---------|-----------|---------|---------|
| Total               | 1,284,246 | 1,213,719 | 991,060 | 870,175 | 1,067,089 | 1,252,400 | 897,823 | 1,031,962 | 898,851 | 739,194 |
| Finfish             | 1,128,383 | 1,050,357 | 822,014 | 686,165 | 915,083   | 1,090,590 | 737,231 | 875,882   | 761,232 | 627,769 |
| Shellfish and Other | 155,864   | 163,362   | 169,046 | 184,010 | 152,006   | 161,811   | 160,592 | 156,080   | 137,619 | 111,424 |
| Key Species         | -         | -         | -       | -       | -         | -         | -       | -         | -       | -       |
| Blue crab           | 43,891    | 44,323    | 39,064  | 43,219  | 41,308    | 40,099    | 43,874  | 42,742    | 37,404  | 34,332  |
| Crawfish            | 9,582     | 6,834     | 19,641  | 13,055  | 5,461     | 13,573    | 8,575   | 11,178    | 9,406   | 7,971   |
| King mackerel       | 986       | 954       | 759     | 1,144   | 1,047     | 994       | 1,052   | 1,021     | 1,108   | 649     |
| Menhaden            | 1,106,931 | 1,026,240 | 800,101 | 663,693 | 893,789   | 1,068,690 | 716,056 | 855,216   | 741,233 | 611,966 |
| Mullets             | 1,385     | 1,385     | 609     | 1,186   | 692       | 1,005     | 1,093   | 630       | 258     | 6       |
| Oysters             | 11,039    | 11,324    | 11,196  | 12,235  | 13,994    | 11,010    | 13,329  | 10,924    | 7,095   | 3,182   |
| Red snapper         | 829       | 928       | 1,067   | 1,325   | 1,405     | 1,236     | 1,557   | 1,414     | 1,414   | 1,208   |
| Shrimp              | 90,552    | 100,182   | 98,604  | 114,794 | 90,507    | 96,658    | 94,226  | 90,673    | 83,301  | 65,636  |
| Tunas               | 932       | 2,152     | 1,241   | 1,104   | 664       | 1,139     | 679     | 570       | 431     | 298     |
| Vermilion snapper   | 229       | 287       | 173     | 237     | 207       | 331       | 311     | 254       | 206     | 91      |

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

| Species           | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------|------|------|------|------|------|------|------|------|------|------|
| Blue crab         | 0.84 | 0.96 | 1.32 | 1.55 | 1.41 | 1.23 | 1.24 | 1.42 | 1.40 | 1.60 |
| Crawfish          | 1.03 | 1.21 | 0.84 | 1.24 | 1.25 | 0.91 | 1.41 | 1.12 | 1.40 | 1.38 |
| King mackerel     | 1.59 | 1.52 | 1.95 | 2.08 | 1.92 | 2.16 | 1.97 | 1.96 | 2.19 | 2.24 |
| Menhaden          | 0.08 | 0.06 | 0.10 | 0.11 | 0.10 | 0.12 | 0.09 | 0.11 | 0.08 | 0.11 |
| Mullets           | 0.56 | 0.70 | 1.03 | 0.77 | 0.60 | 0.72 | 0.69 | 0.62 | 0.51 | 0.28 |
| Oysters           | 3.72 | 3.71 | 3.91 | 5.29 | 5.85 | 5.65 | 6.33 | 6.95 | 7.07 | 7.47 |
| Red snapper       | 2.33 | 2.36 | 4.04 | 4.40 | 4.23 | 4.20 | 4.31 | 4.32 | 3.85 | 3.78 |
| Shrimp            | 1.45 | 1.45 | 1.84 | 2.05 | 1.26 | 1.41 | 1.41 | 1.24 | 1.45 | 1.40 |
| Tunas             | 3.62 | 3.67 | 3.70 | 3.09 | 4.27 | 3.77 | 3.80 | 4.07 | 4.21 | 4.08 |
| Vermilion snapper | 2.20 | 2.30 | 2.73 | 2.90 | 3.00 | 2.76 | 2.64 | 2.75 | 2.83 | 2.79 |

<sup>1</sup> 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.

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Louisiana Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 1,195 | 103,579 | 32,504  | 55,142      |
| Private Boat                 | 3,629 | 466,449 | 147,213 | 272,473     |
| Shore                        | 782   | 92,261  | 30,480  | 55,363      |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 5,607 | 662,289 | 210,197 | 382,978     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 490,040    | 64,567   | 355,252      | 70,222 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|-------|------|------|------|------|------|------|------|
| Total Anglers | 959  | 893  | 1,080 | NA   | NA   | NA   | NA   | NA   | NA   | NA   |
| Coastal       | 690  | 651  | 709   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |
| Non-Coastal   | 86   | 77   | 109   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |
| Out-of-State  | 183  | 165  | 262   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011   | 2012   | 2013   | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 11,454 | 10,889 | 10,770 | 2,227 | 2,425 | 2,242 | 2,308 | 2,276 | 2,108 | 2,501 |
| For-Hire     | 97     | 108    | 122    | 131   | 160   | 179   | 179   | 183   | 169   | 115   |
| Private Boat | 5,944  | 5,730  | 5,477  | 2,096 | 2,266 | 2,062 | 2,130 | 2,093 | 1,940 | 2,386 |
| Shore        | 5,413  | 5,051  | 5,172  | NA    | NA    | NA    | NA    | NA    | NA    | NA    |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3,4,5,6,7</sup>**

| Species           | Category | 2011   | 2012   | 2013   | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|-------------------|----------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic croaker  | H        | 1,123  | 1,288  | 2,328  | 235   | 209   | 150   | 150   | 134   | 86    | 257   |
|                   | R        | 5,472  | 4,122  | 3,973  | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Black drum        | H        | 1,091  | 995    | 1,020  | 218   | 220   | 138   | 143   | 148   | 121   | 108   |
|                   | R        | 2,854  | 2,421  | 4,064  | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Red drum          | H        | 5,780  | 3,941  | 5,679  | 1,283 | 1,244 | 1,045 | 1,644 | 1,977 | 1,224 | 1,079 |
|                   | R        | 6,809  | 6,505  | 10,046 | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Red snapper       | H        | 63     | 153    | 113    | 128   | 171   | 145   | 119   | 101   | 123   | 103   |
|                   | R        | 210    | 216    | 333    | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Sand seatrout     | H        | 2,513  | 2,070  | 1,458  | 532   | 370   | 354   | 359   | 426   | 314   | 339   |
|                   | R        | 2,475  | 1,397  | 1,845  | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Sheepshead        | H        | 2,748  | 1,277  | 975    | 262   | 258   | 225   | 553   | 308   | 399   | 660   |
|                   | R        | 514    | 605    | 1,386  | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Southern flounder | H        | 988    | 689    | 1,531  | 209   | 217   | 222   | 94    | 65    | 103   | 94    |
|                   | R        | 189    | 207    | 251    | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Southern kingfish | H        | 34     | 316    | 41     | 4     | 20    | 6     | 18    | 25    | 18    | 6     |
|                   | R        | 72     | 113    | 118    | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spotted seatrout  | H        | 19,035 | 19,410 | 16,267 | 3,231 | 4,292 | 5,326 | 5,142 | 2,578 | 3,542 | 3,834 |
|                   | R        | 10,961 | 14,055 | 19,153 | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Yellowfin tuna    | H        | 21     | 47     | 13     | 14    | 23    | 28    | 23    | 6     | 5     | 10    |
|                   | R        | 8      | 6      | 2      | 0     | 0     | 0     | 0     | 0     | 0     | 0     |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> Louisiana resident participation is estimated from historical Marine Recreational Information Program (MRIP) data (2010-2013) and a state creel survey (2014-2019).<sup>3</sup> 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.<sup>4</sup> 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](http://www.tpwd.state.tx.us).]<sup>5</sup> Louisiana harvest and release totals for 2014-2019 are estimated using data from a state creel survey.<sup>6</sup> 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.<sup>7</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2018 Louisiana State Economy (% of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 106,302 (1.3%)                      | 1,719,561 (1.3%)               | 82.5 (1.1%)                          | 129 (1.1%)                                  | 255                                       | 4.75                                 |

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

| Sector                                    | Statistic | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019 |
|---|-----------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Seafood product preparation and packaging | Firms     | 94     | 78     | 99     | 111    | 115    | 113    | 124    | 110    | NA   |
|   | Receipts  | 9,308  | 8,492  | 9,136  | 8,632  | 10,086 | 11,917 | 12,051 | 10,552 | NA   |
| Seafood sales, retail                     | Firms     | 192    | 184    | 173    | 177    | 169    | 180    | 174    | 157    | NA   |
|   | Receipts  | 18,758 | 16,804 | 17,538 | 17,383 | 17,870 | 18,880 | 17,009 | 17,201 | NA   |

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

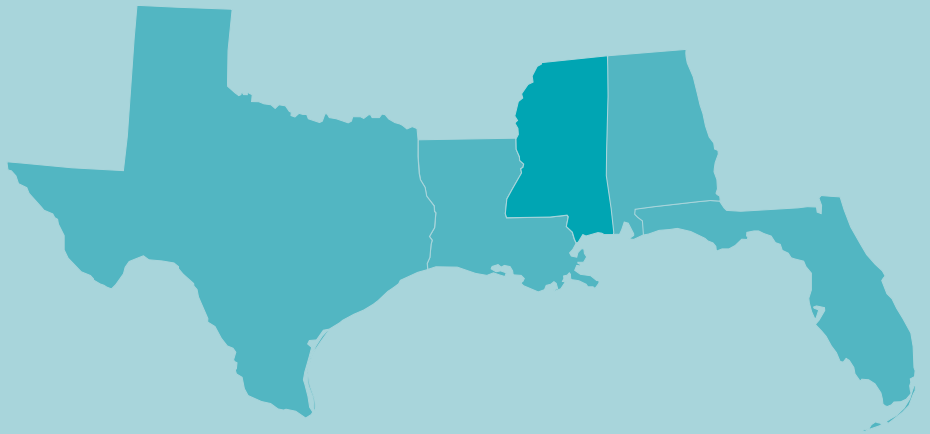
| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 33     | 35     | 36     | 37     | 38     | 34     | 36     | 34     | 34     |
|   | Employees      | 1,006  | 1,117  | 964    | 943    | 1,015  | 1,069  | 1,495  | 1,388  | 1,409  |
|   | Payroll        | 46,440 | 51,237 | 49,339 | 50,881 | 63,909 | 37,506 | 53,273 | 59,597 | 46,850 |
| Seafood Sales, Wholesale                  | Establishments | 94     | 103    | 106    | 109    | 111    | 116    | 114    | 113    | 110    |
|   | Employees      | 767    | 862    | 846    | 672    | 865    | 805    | 750    | 719    | 796    |
|   | Payroll        | 18,427 | 22,296 | 23,235 | 24,107 | 25,837 | 28,013 | 25,327 | 26,052 | 26,417 |
| Seafood sales, retail                     | Establishments | 100    | 97     | 94     | 90     | 90     | 90     | 93     | 96     | 96     |
|   | Employees      | 590    | 704    | 643    | 562    | 612    | 710    | 748    | 772    | 851    |
|   | Payroll        | 11,090 | 13,042 | 11,213 | 10,421 | 11,802 | 13,095 | 12,844 | 13,648 | 14,529 |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 109     | 116     | 110     | 117     | 109     | 105     | 105     | 98      | 91      |
|  | Employees      | 11,722  | 10,933  | 7,413   | 8,512   | 8,470   | 5,629   | 5,765   | 5,101   | 4,583   |
|  | Payroll        | 639,047 | 631,098 | 416,319 | 479,243 | 401,977 | 316,927 | 311,710 | 287,719 | 288,882 |
| Deep Sea Freight Transportation                | Establishments | 17      | 18      | 11      | 19      | 21      | 16      | 13      | 14      | 13      |
|  | Employees      | 93      | ds      | 95      | ds      | 451     | 300     | 126     | 358     | 204     |
|  | Payroll        | 5,608   | ds      | 5,435   | ds      | 21,706  | 25,246  | 12,921  | 23,746  | 19,439  |
| Deep Sea Passenger Transportation              | Establishments | 3       | 2       | 4       | 4       | 3       | 3       | 3       | 3       | NA      |
|  | Employees      | ds      | ds      | 3       | ds      | ds      | ds      | ds      | 82      | NA      |
|  | Payroll        | ds      | ds      | 363     | ds      | ds      | ds      | ds      | 5,115   | NA      |
| Coastal and Great Lakes Freight Transportation | Establishments | 125     | 105     | 102     | 124     | 116     | 104     | 94      | 77      | 75      |
|  | Employees      | 5,834   | 6,422   | 5,317   | 6,275   | 5,212   | 3,919   | 4,686   | 4,522   | 4,611   |
|  | Payroll        | 417,362 | 497,165 | 458,589 | 556,693 | 396,625 | 273,575 | 351,229 | 346,765 | 383,333 |
| Port and Harbor Operations                     | Establishments | 20      | 46      | 18      | 14      | 15      | 15      | 24      | 31      | 30      |
|  | Employees      | 461     | 1,205   | 443     | ds      | 399     | 421     | 806     | 1,130   | 1,144   |
|  | Payroll        | 38,745  | 80,780  | 37,122  | ds      | 37,866  | 39,772  | 68,059  | 92,753  | 95,424  |
| Marine Cargo Handling                          | Establishments | 42      | 37      | 44      | 49      | 45      | 43      | 42      | 38      | 39      |
|  | Employees      | 2,526   | 2,016   | 2,834   | 3,106   | 3,418   | 2,955   | 2,324   | 2,133   | 4,143   |
|  | Payroll        | 108,491 | 93,896  | 174,054 | 212,786 | 175,092 | 156,891 | 116,330 | 91,315  | 223,474 |
| Navigational Services to Shipping              | Establishments | 138     | 136     | 133     | 137     | 142     | 144     | 167     | 163     | 161     |
|  | Employees      | 3,396   | 2,545   | 2,533   | 2,816   | 2,862   | 2,780   | 3,079   | 3,064   | 3,008   |
|  | Payroll        | 208,306 | 162,094 | 169,795 | 206,318 | 218,379 | 203,905 | 223,344 | 225,309 | 239,022 |
| Marinas  | Establishments | 45      | 44      | 41      | 39      | 36      | 38      | 38      | 34      | 37      |
|  | Employees      | 329     | 257     | 250     | 229     | 194     | 204     | 227     | 255     | 232     |
|  | Payroll        | 10,771  | 9,209   | 8,693   | 7,276   | 4,683   | 4,521   | 6,790   | 7,026   | 6,988   |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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.<sup>3</sup> ds = Data are suppressed.

# Tables | Mississippi





**2020 Economic Impacts of the Mississippi Seafood Industry (thousands of dollars; number of jobs)<sup>1,2</sup>**

| Sector                               | With Imports |         |         |             | Without Imports |         |         |             |
|--------------------------------------|--------------|---------|---------|-------------|-----------------|---------|---------|-------------|
|                                      | Jobs         | Sales   | Income  | Value Added | Jobs            | Sales   | Income  | Value Added |
| Total Impacts                        | 6,459        | 346,873 | 136,974 | 177,125     | 6,431           | 342,393 | 135,868 | 175,443     |
| Commercial Harvesters                | 1,432        | 82,765  | 25,901  | 37,278      | 1,432           | 82,765  | 25,901  | 37,278      |
| Seafood Processors and Dealers       | 1,201        | 107,813 | 42,653  | 53,445      | 1,184           | 106,269 | 42,042  | 52,680      |
| Importers                            | 9            | 2,846   | 456     | 868         | NA              | NA      | NA      | NA          |
| Seafood Wholesalers and Distributors | 127          | 14,060  | 4,961   | 6,251       | 127             | 14,042  | 4,955   | 6,243       |
| Retail                               | 3,691        | 139,390 | 63,003  | 79,283      | 3,689           | 139,317 | 62,970  | 79,242      |

**Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)<sup>2</sup>**

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 30,163 | 49,142 | 34,600 | 38,394 | 64,713 | 28,994 | 31,073 | 44,431 | 58,661 | 51,988 |
| Finfish             | 10,400 | 23,058 | 10,571 | 20,707 | 53,261 | 11,342 | 11,947 | 26,441 | 42,743 | 39,130 |
| Shellfish and Other | 19,763 | 26,084 | 24,029 | 17,686 | 11,452 | 17,652 | 19,126 | 17,990 | 15,918 | 12,858 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Blue crab           | 321    | 724    | 416    | 931    | 1,209  | 913    | 793    | 806    | 692    | 899    |
| Eastern oyster      | 928    | 1,596  | 1,544  | 1,742  | 969    | 1,088  | 344    | 19     | NA     | NA     |
| Menhaden            | 9,871  | 22,394 | 10,230 | 20,234 | 52,962 | 10,973 | 11,086 | 25,992 | 41,992 | 38,527 |
| Mulletts            | 56     | 63     | 61     | 14     | 12     | 22     | 39     | 72     | 18     | 12     |
| Oysters             | 928    | 1,596  | 1,544  | 1,742  | 969    | 1,088  | 344    | 19     | NA     | NA     |
| Red drum            | 58     | 69     | 75     | 93     | 155    | 150    | 140    | 116    | 155    | 132    |
| Shrimp              | 18,515 | 23,765 | 22,069 | 14,969 | 9,197  | 15,576 | 17,956 | 17,117 | 15,128 | 11,940 |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 277,769 | 263,504 | 180,343 | 190,309 | 304,607 | 307,757 | 311,351 | 319,863 | 340,716 | 303,509 |
| Finfish             | 267,107 | 249,291 | 170,745 | 184,213 | 294,413 | 294,381 | 300,080 | 309,426 | 332,753 | 296,667 |
| Shellfish and Other | 10,662  | 14,213  | 9,598   | 6,095   | 10,195  | 13,376  | 11,271  | 10,436  | 7,963   | 6,841   |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Blue crab           | 370     | 782     | 359     | 559     | 798     | 780     | 626     | 519     | 573     | 645     |
| Eastern oyster      | 247     | 425     | 336     | 333     | 182     | 245     | 60      | 3       | NA      | NA      |
| Menhaden            | 266,756 | 248,846 | 170,495 | 183,950 | 294,189 | 294,189 | 299,630 | 309,058 | 332,372 | 296,364 |
| Mulletts            | 93      | 99      | 95      | 22      | 21      | 40      | 68      | 176     | 35      | 23      |
| Oysters             | 247     | 425     | 336     | 333     | 182     | 245     | 60      | 3       | NA      | NA      |
| Red drum            | 28      | 35      | 37      | 43      | 61      | 61      | 57      | 48      | 62      | 51      |
| Shrimp              | 10,045  | 13,006  | 8,903   | 5,187   | 9,185   | 12,324  | 10,566  | 9,896   | 7,359   | 6,190   |

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

| Species        | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| Blue crab      | 0.87 | 0.93 | 1.16 | 1.66 | 1.51 | 1.17 | 1.27 | 1.55 | 1.21 | 1.39 |
| Eastern oyster | 3.75 | 3.75 | 4.59 | 5.23 | 5.32 | 4.44 | 5.78 | 7.46 | NA   | NA   |
| Menhaden       | 0.04 | 0.09 | 0.06 | 0.11 | 0.18 | 0.04 | 0.04 | 0.08 | 0.13 | 0.13 |
| Mulletts       | 0.61 | 0.64 | 0.64 | 0.63 | 0.56 | 0.55 | 0.58 | 0.41 | 0.50 | 0.50 |
| Oysters        | 3.75 | 3.75 | 4.59 | 5.23 | 5.32 | 4.44 | 5.78 | 7.46 | NA   | NA   |
| Red drum       | 2.04 | 1.99 | 2.04 | 2.15 | 2.53 | 2.48 | 2.47 | 2.42 | 2.51 | 2.57 |
| Shrimp         | 1.84 | 1.83 | 2.48 | 2.89 | 1.00 | 1.26 | 1.70 | 1.73 | 2.06 | 1.93 |

<sup>1</sup> 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.

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Mississippi Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income | Value Added |
|------------------------------|-------|---------|--------|-------------|
| For-Hire                     | 89    | 7,656   | 2,333  | 4,054       |
| Private Boat                 | 529   | 52,919  | 16,770 | 31,878      |
| Shore                        | 699   | 56,622  | 19,932 | 36,651      |
| Total Durable Expenditures   | NA    | NA      | NA     | NA          |
| Total State Economic Impacts | 1,317 | 117,198 | 39,034 | 72,584      |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore  |
|------------|----------|--------------|--------|
| 103,375    | 5,018    | 49,708       | 48,648 |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | 268  | 331  | 339  | 328  | 357  | 345  | 300  | 423  | NA   | NA   |
| Coastal       | 160  | 179  | 171  | 171  | 195  | 156  | 153  | 169  | NA   | NA   |
| Non-Coastal   | 48   | 60   | 67   | 62   | 48   | 83   | 50   | 78   | NA   | NA   |
| Out-of-State  | 60   | 91   | 101  | 94   | 114  | 106  | 97   | 176  | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Trips  | 4,503 | 4,493 | 4,342 | 4,312 | 4,594 | 4,718 | 4,848 | 4,555 | 4,227 | 4,298 |
| For-Hire     | 11    | 11    | 11    | 17    | 42    | 25    | 16    | 19    | 20    | 9     |
| Private Boat | 1,600 | 1,643 | 1,599 | 1,486 | 1,568 | 1,733 | 1,606 | 1,527 | 1,382 | 1,450 |
| Shore        | 2,892 | 2,838 | 2,731 | 2,808 | 2,984 | 2,960 | 3,225 | 3,009 | 2,825 | 2,839 |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3,4,5</sup>**

| Species                   | Category | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|---------------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Atlantic croaker          | H        | 1,358 | 752   | 819   | 2,120 | 957   | 1,241 | 1,262 | 1,270 | 1,986 | 2,072 |
|                           | R        | 1,842 | 1,673 | 630   | 704   | 1,690 | 3,292 | 4,239 | 4,503 | 4,776 | 2,800 |
| Kingfish                  | H        | 395   | 546   | 976   | 437   | 1,066 | 1,713 | 798   | 698   | 226   | 545   |
|                           | R        | 90    | 326   | 195   | 298   | 122   | 409   | 391   | 130   | 254   | 73    |
| Red drum                  | H        | 153   | 210   | 320   | 201   | 203   | 329   | 246   | 384   | 502   | 240   |
|                           | R        | 387   | 1,173 | 828   | 885   | 575   | 769   | 1,662 | 1,500 | 1,339 | 1,396 |
| Red snapper               | H        | 40    | 109   | 48    | 13    | 20    | 91    | 121   | 101   | 177   | 51    |
|                           | R        | < 1   | 10    | 134   | 127   | 472   | 333   | 750   | 246   | 639   | 188   |
| Sand and silver seatrouts | H        | 2,599 | 2,145 | 1,589 | 1,797 | 2,391 | 3,242 | 4,924 | 2,540 | 1,612 | 2,055 |
|                           | R        | 879   | 1,063 | 494   | 305   | 418   | 1,059 | 1,513 | 1,790 | 872   | 1,038 |
| Sharks                    | H        | 56    | 19    | 109   | 12    | 11    | 6     | 12    | 4     | 3     | 2     |
|                           | R        | 82    | 207   | 147   | 65    | 27    | 134   | 28    | 94    | 34    | 111   |
| Sheepshead                | H        | 557   | 235   | 207   | 198   | 185   | 107   | 815   | 98    | 100   | 203   |
|                           | R        | 89    | 91    | 122   | 52    | 1,059 | 48    | 77    | 124   | 128   | 336   |
| Southern flounder         | H        | 421   | 401   | 448   | 255   | 172   | 225   | 96    | 126   | 181   | 95    |
|                           | R        | 246   | 319   | 279   | 138   | 225   | 110   | 39    | 249   | 102   | 153   |
| Spotted seatrout          | H        | 1,563 | 1,395 | 1,985 | 1,183 | 1,838 | 3,410 | 1,390 | 1,383 | 1,132 | 681   |
|                           | R        | 1,218 | 2,071 | 2,354 | 1,818 | 1,741 | 3,693 | 4,053 | 2,059 | 2,828 | 2,546 |
| Striped mullet            | H        | 1,291 | 660   | 1,883 | 869   | 2,664 | 1,254 | 615   | 1,631 | 283   | 823   |
|                           | R        | 165   | 204   | 57    | 17    | 323   | 18    | 5     | 133   | 291   | 29    |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.<sup>2</sup> 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](http://www.tpwd.state.tx.us).]<sup>3</sup> 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.<sup>4</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.<sup>5</sup> Kingfish include southern kingfish and Gulf kingfish.

2019 Mississippi State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 59,130 (0.7%)                       | 958,126 (0.7%)                 | 37.7 (0.5%)                          | 63.7 (0.6%)                                 | 115                                       | 4.39                                 |

Seafood Sales and Processing — Non-Employer Firms (thousands of dollars)<sup>2</sup>

| Sector                                    | Statistic | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019 |
|---|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Seafood product preparation and packaging | Firms     | 25    | 27    | ds    | 21    | 12    | 20    | 19    | 22    | NA   |
|   | Receipts  | 2,108 | 930   | ds    | 1,932 | 1,539 | 2,879 | 2,852 | 3,844 | NA   |
| Seafood sales, retail                     | Firms     | 51    | 50    | 54    | 42    | 53    | 58    | 54    | 48    | NA   |
|   | Receipts  | 3,505 | 3,957 | 3,855 | 3,129 | 4,053 | 4,836 | 4,397 | 3,602 | NA   |

Seafood Sales and Processing — Employer Establishments (thousands of dollars)<sup>2</sup>

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 18     | 18     | 19     | 19     | 18     | 18     | 19     | 18     | 17     |
|   | Employees      | 2,464  | 2,368  | 2,284  | 2,289  | 2,370  | 2,589  | 2,686  | 2,404  | 2,462  |
|   | Payroll        | 52,502 | 55,407 | 59,212 | 57,324 | 60,906 | 65,003 | 79,080 | 77,378 | 67,316 |
| Seafood Sales, Wholesale                  | Establishments | 18     | 17     | 14     | 14     | 14     | 15     | 13     | 13     | 14     |
|   | Employees      | 64     | 102    | ds     | ds     | 39     | 46     | 37     | 28     | 22     |
|   | Payroll        | 2,532  | 4,412  | 1,546  | 1,587  | 1,800  | 2,038  | 1,819  | 1,682  | 1,915  |
| Seafood sales, retail                     | Establishments | 17     | 13     | 13     | 10     | 8      | 9      | 12     | 10     | 9      |
|   | Employees      | 58     | ds     | ds     | ds     | 96     | 228    | 128    | 91     | 104    |
|   | Payroll        | 838    | 1,902  | ds     | ds     | 2,672  | 3,092  | 3,029  | 2,805  | 3,097  |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

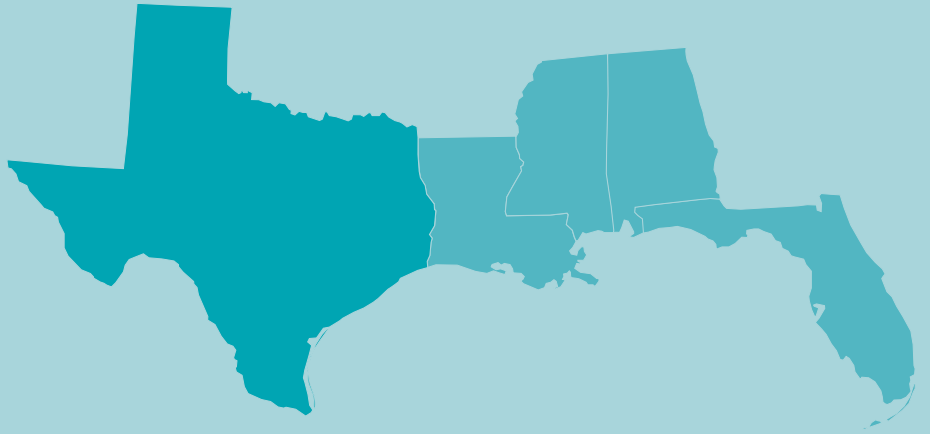
| Sector   | Statistic      | 2011  | 2012  | 2013   | 2014   | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 20    | 18    | 19     | 18     | 18      | 16      | 14      | 15      | 15      |
|  | Employees      | ds    | ds    | ds     | ds     | 14,722  | 14,066  | 13,602  | 13,928  | 13,244  |
|  | Payroll        | ds    | ds    | ds     | ds     | 892,317 | 899,814 | 875,851 | 944,237 | 864,241 |
| Deep Sea Freight Transportation                | Establishments | 1     | 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      |
| Coastal and Great Lakes Freight Transportation | Establishments | 4     | 4     | 6      | 4      | 4       | 4       | 3       | 3       | NA      |
|  | Employees      | 127   | ds    | 230    | 277    | 259     | ds      | 1       | 10      | NA      |
|  | Payroll        | 7,233 | ds    | 17,080 | 16,365 | 17,353  | ds      | 242     | 430     | NA      |
| Port and Harbor Operations                     | Establishments | 1     | 3     | 2      | 1      | 1       | 1       | 3       | 3       | NA      |
|  | Employees      | ds    | ds    | ds     | ds     | ds      | ds      | ds      | 31      | NA      |
|  | Payroll        | ds    | ds    | ds     | ds     | ds      | ds      | ds      | 1,917   | NA      |
| Marine Cargo Handling                          | Establishments | 7     | 2     | 4      | 5      | 5       | 6       | 6       | 6       | 5       |
|  | Employees      | ds    | ds    | ds     | ds     | 241     | 173     | ds      | 458     | 460     |
|  | Payroll        | ds    | ds    | ds     | ds     | 10,390  | 7,562   | ds      | 13,061  | 14,238  |
| Navigational Services to Shipping              | Establishments | 6     | 7     | 6      | 7      | 7       | 7       | 9       | 9       | 8       |
|  | Employees      | ds    | ds    | ds     | ds     | 57      | 42      | 130     | 106     | 112     |
|  | Payroll        | ds    | ds    | ds     | ds     | 2,698   | 2,748   | 8,406   | 7,739   | 8,446   |
| Marinas  | Establishments | 19    | 16    | 16     | 18     | 17      | 18      | 17      | 18      | 17      |
|  | Employees      | 189   | 204   | 154    | 193    | 197     | 199     | 201     | 223     | 233     |
|  | Payroll        | 5,137 | 5,361 | 3,972  | 4,960  | 5,047   | 5,517   | 5,215   | 5,503   | 5,700   |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Tables | Texas



2020 Economic Impacts of the Texas Seafood Industry (thousands of dollars; number of jobs)<sup>1,2</sup>

| Sector                               | With Imports |           |           |             | Without Imports |           |         |             |
|--------------------------------------|--------------|-----------|-----------|-------------|-----------------|-----------|---------|-------------|
|                                      | Jobs         | Sales     | Income    | Value Added | Jobs            | Sales     | Income  | Value Added |
| Total Impacts                        | 35,517       | 4,900,200 | 1,201,802 | 1,897,752   | 15,296          | 1,078,693 | 398,152 | 555,106     |
| Commercial Harvesters                | 4,260        | 407,824   | 125,040   | 195,515     | 4,260           | 407,824   | 125,040 | 195,515     |
| Seafood Processors and Dealers       | 3,083        | 303,630   | 114,223   | 150,435     | 1,430           | 140,856   | 52,989  | 69,788      |
| Importers                            | 9,038        | 2,992,621 | 479,625   | 912,282     | NA              | NA        | NA      | NA          |
| Seafood Wholesalers and Distributors | 1,990        | 316,349   | 105,553   | 146,171     | 412             | 65,499    | 21,854  | 30,264      |
| Retail                               | 17,146       | 879,776   | 377,361   | 493,349     | 9,194           | 464,514   | 198,268 | 259,538     |

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

| Category            | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total               | 225,141 | 205,760 | 258,124 | 263,614 | 180,421 | 205,129 | 230,633 | 211,848 | 209,279 | 195,628 |
| Finfish             | 8,261   | 9,955   | 12,787  | 13,572  | 15,947  | 17,411  | 16,147  | 16,023  | 18,954  | 16,845  |
| Shellfish and Other | 216,881 | 195,805 | 245,337 | 250,043 | 164,474 | 187,718 | 214,486 | 195,824 | 190,325 | 178,783 |
| Key Species         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Atlantic croaker    | 621     | 743     | 819     | 690     | 725     | 856     | 767     | 1,276   | 1,320   | 1,343   |
| Black drum          | 1,443   | 1,492   | 1,706   | 1,981   | 2,074   | 2,341   | 2,458   | 1,840   | 2,288   | 1,471   |
| Blue crab           | 2,838   | 2,878   | 2,331   | 3,057   | 5,539   | 6,789   | 5,423   | 4,886   | 5,529   | 5,022   |
| Flounders           | 204     | 175     | 73      | 99      | 187     | 239     | 164     | 73      | 107     | 112     |
| Groupers            | 560     | 760     | 1,149   | 1,154   | 1,481   | 1,593   | 1,154   | 755     | 1,302   | 559     |
| Oysters             | 12,796  | 21,306  | 23,471  | 19,222  | 8,254   | 17,129  | 20,404  | 23,999  | 33,496  | 30,626  |
| Red snapper         | 3,274   | 4,448   | 7,329   | 7,617   | 9,387   | 10,573  | 9,881   | 10,838  | 12,548  | 12,176  |
| Shrimp              | 200,992 | 171,379 | 219,396 | 227,588 | 150,466 | 163,564 | 188,477 | 166,771 | 151,041 | 142,927 |
| Tunas               | 2       | 5       | 7       | 27      | 3       | 3       | 1       | 1       | 1       | NA      |
| Vermilion snapper   | 1,274   | 1,434   | 659     | 604     | 920     | 584     | 443     | 333     | 323     | 276     |

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

| Category            | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total               | 96,920 | 90,159 | 83,583 | 78,027 | 84,228 | 79,366 | 90,673 | 84,385 | 74,918 | 72,517 |
| Finfish             | 4,106  | 4,101  | 4,691  | 4,795  | 5,370  | 5,683  | 5,201  | 4,643  | 5,379  | 4,565  |
| Shellfish and Other | 92,814 | 86,058 | 78,893 | 73,232 | 78,859 | 73,683 | 85,472 | 79,741 | 69,539 | 67,953 |
| Key Species         | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Atlantic croaker    | 79     | 89     | 96     | 79     | 88     | 101    | 88     | 131    | 129    | 123    |
| Black drum          | 1,789  | 1,624  | 1,698  | 1,747  | 1,879  | 2,055  | 1,926  | 1,469  | 1,795  | 1,070  |
| Blue crab           | 2,886  | 2,854  | 1,902  | 2,238  | 4,336  | 5,323  | 4,132  | 3,431  | 3,913  | 3,406  |
| Flounders           | 75     | 60     | 21     | 25     | 51     | 64     | 40     | 18     | 26     | 25     |
| Groupers            | 194    | 220    | 300    | 280    | 354    | 372    | 271    | 169    | 267    | 127    |
| Oysters             | 4,342  | 5,818  | 6,126  | 4,129  | 1,587  | 3,127  | 3,504  | 3,859  | 5,288  | 5,331  |
| Red snapper         | 952    | 1,123  | 1,807  | 1,797  | 2,152  | 2,390  | 2,213  | 2,353  | 2,603  | 2,755  |
| Shrimp              | 85,485 | 77,304 | 70,818 | 66,815 | 72,871 | 65,171 | 77,795 | 72,415 | 60,281 | 59,171 |
| Tunas               | 1      | 3      | 3      | 9      | 1      | 2      | 1      | 1      | 1      | NA     |
| Vermilion snapper   | 466    | 511    | 234    | 203    | 307    | 192    | 149    | 107    | 104    | 92     |

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

| Species           | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019  | 2020  |
|-------------------|------|------|------|------|------|------|------|------|-------|-------|
| Atlantic croaker  | 7.84 | 8.31 | 8.55 | 8.68 | 8.20 | 8.51 | 8.73 | 9.78 | 10.23 | 10.88 |
| Black drum        | 0.81 | 0.92 | 1.00 | 1.13 | 1.10 | 1.14 | 1.28 | 1.25 | 1.27  | 1.38  |
| Blue crab         | 0.98 | 1.01 | 1.23 | 1.37 | 1.28 | 1.28 | 1.31 | 1.42 | 1.41  | 1.47  |
| Flounders         | 2.74 | 2.94 | 3.55 | 3.91 | 3.65 | 3.72 | 4.10 | 3.98 | 4.15  | 4.59  |
| Groupers          | 2.89 | 3.45 | 3.84 | 4.12 | 4.18 | 4.28 | 4.25 | 4.47 | 4.87  | 4.42  |
| Oysters           | 2.95 | 3.66 | 3.83 | 4.66 | 5.20 | 5.48 | 5.82 | 6.22 | 6.33  | 5.74  |
| Red snapper       | 3.44 | 3.96 | 4.06 | 4.24 | 4.36 | 4.42 | 4.47 | 4.61 | 4.82  | 4.42  |
| Shrimp            | 2.35 | 2.22 | 3.10 | 3.41 | 2.06 | 2.51 | 2.42 | 2.30 | 2.51  | 2.42  |
| Tunas             | 1.82 | 1.83 | 2.10 | 2.94 | 2.43 | 1.41 | 1.53 | 2.11 | 2.43  | NA    |
| Vermilion snapper | 2.73 | 2.80 | 2.81 | 2.98 | 3.00 | 3.04 | 2.97 | 3.12 | 3.10  | 2.99  |

<sup>1</sup> 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.

<sup>2</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

**2020 Economic Impacts of Texas Recreational Fishing (thousands of dollars; number of jobs)<sup>1</sup>**

| Fishing Mode                 | Jobs  | Sales   | Income  | Value Added |
|------------------------------|-------|---------|---------|-------------|
| For-Hire                     | 1,360 | 160,682 | 54,223  | 96,762      |
| Private Boat                 | 1,897 | 273,700 | 84,935  | 166,093     |
| Shore                        | NA    | NA      | NA      | NA          |
| Total Durable Expenditures   | NA    | NA      | NA      | NA          |
| Total State Economic Impacts | 3,257 | 434,382 | 139,159 | 262,855     |

**2020 Angler Trip Expenditures (thousands of dollars)**

| Total Trip | For-Hire | Private Boat | Shore |
|------------|----------|--------------|-------|
| 265,629    | 95,068   | 170,561      | NA    |

**Recreational Anglers by Residential Area (thousands of anglers)**

| Category      | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Total Anglers | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |

**Recreational Fishing Effort by Mode (thousands of angler trips)**

| Category     | 2011 | 2012  | 2013 | 2014 | 2015 | 2016  | 2017  | 2018  | 2019  | 2020  |
|--------------|------|-------|------|------|------|-------|-------|-------|-------|-------|
| Total Trips  | 974  | 1,029 | 977  | 956  | 916  | 1,071 | 1,024 | 1,077 | 1,233 | 1,201 |
| For-Hire     | 161  | 221   | 143  | 139  | 144  | 157   | 189   | 299   | 378   | 237   |
| Private Boat | 813  | 808   | 834  | 818  | 772  | 913   | 836   | 778   | 855   | 963   |
| Shore        | NA   | NA    | NA   | NA   | NA   | NA    | NA    | NA    | NA    | NA    |

**Harvest (H) and Release (R) of Key Species/Species Groups (thousands of fish)<sup>2,3,4,5</sup>**

| Species           | Category | 2011  | 2012 | 2013 | 2014 | 2015 | 2016  | 2017 | 2018 | 2019  | 2020 |
|-------------------|----------|-------|------|------|------|------|-------|------|------|-------|------|
| Atlantic croaker  | H        | 156   | 160  | 146  | 118  | 213  | 126   | 67   | 64   | 56    | 110  |
| Black drum        | H        | 124   | 256  | 147  | 138  | 131  | 140   | 167  | 129  | 189   | 165  |
| King mackerel     | H        | 9     | 9    | 10   | 13   | 9    | 12    | 15   | 24   | 18    | 11   |
| Red drum          | H        | 338   | 324  | 263  | 255  | 244  | 286   | 300  | 274  | 330   | 325  |
| Red snapper       | H        | 36    | 34   | 49   | 40   | 50   | 29    | 46   | 54   | 80    | 45   |
| Sand seatrout     | H        | 225   | 208  | 105  | 168  | 95   | 154   | 79   | 52   | 118   | 100  |
| Sheepshead        | H        | 48    | 146  | 82   | 49   | 48   | 100   | 61   | 83   | 129   | 50   |
| Southern flounder | H        | 102   | 116  | 61   | 84   | 85   | 111   | 70   | 33   | 77    | 75   |
| Spanish mackerel  | H        | 8     | 5    | 2    | 2    | 2    | 5     | 6    | 6    | 2     | 1    |
| Spotted seatrout  | H        | 1,098 | 836  | 784  | 619  | 837  | 1,027 | 963  | 737  | 1,067 | 861  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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](http://www.tpwd.state.tx.us).]

<sup>3</sup> 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](http://www.tpwd.state.tx.us).]

<sup>4</sup> 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.

<sup>5</sup> In this table, '<1' = 0-999 fish, and '1' = 1,000-1,499 fish.

2019 Texas State Economy (percentage of national total)<sup>1,2</sup>

| Non-Employer Firms (number in millions) | Establishments (number in millions) | Employees (number in millions) | Annual Payroll (billions of dollars) | Employee Compensation (billions of dollars) | Gross State Product (billions of dollars) | Commercial Fishing Location Quotient |
|---|-------------------------------------|--------------------------------|--------------------------------------|---|---|--------------------------------------|
| NA                                      | 609,476 (7.7%)                      | 11,104,054 (8.3%)              | 611 (8.2%)                           | 952 (8.3%)                                  | 1,864                                     | 0.27                                 |

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

| Sector                                    | Statistic | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019 |
|---|-----------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Seafood product preparation and packaging | Firms     | 119    | 123    | 123    | 128    | 178    | 165    | 131    | 125    | NA   |
|   | Receipts  | 5,734  | 6,675  | 7,484  | 6,706  | 11,051 | 10,057 | 8,187  | 7,504  | NA   |
| Seafood sales, retail                     | Firms     | 171    | 194    | 173    | 199    | 178    | 167    | 174    | 179    | NA   |
|   | Receipts  | 13,433 | 14,891 | 15,094 | 15,160 | 15,660 | 13,072 | 13,935 | 14,582 | NA   |

Seafood Sales and Processing — Employer Establishments (thousands of dollars)<sup>2</sup>

| Sector                                    | Statistic      | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seafood product preparation and packaging | Establishments | 24     | 22     | 30     | 32     | 29     | 34     | 35     | 31     | 30     |
|   | Employees      | 1,273  | 1,248  | 1,026  | 1,062  | 1,006  | 975    | 1,023  | 954    | 985    |
|   | Payroll        | 26,425 | 27,737 | 27,638 | 28,643 | 29,729 | 27,765 | 33,479 | 35,529 | 35,656 |
| Seafood Sales, Wholesale                  | Establishments | 82     | 71     | 75     | 89     | 90     | 86     | 81     | 95     | 89     |
|   | Employees      | 723    | 603    | 729    | 816    | 874    | 928    | 971    | 795    | 873    |
|   | Payroll        | 26,356 | 25,309 | 30,370 | 35,553 | 37,315 | 37,519 | 34,972 | 28,744 | 31,916 |
| Seafood sales, retail                     | Establishments | 50     | 60     | 60     | 59     | 62     | 57     | 52     | 50     | 49     |
|   | Employees      | ds     | ds     | 331    | 395    | 415    | 439    | 279    | 247    | 267    |
|   | Payroll        | 4,090  | 6,102  | 6,891  | 8,201  | 9,319  | 9,097  | 5,750  | 5,805  | 6,424  |

Transportation Support and Marine Operations — Employer Establishments (thousands of dollars)<sup>3</sup>

| Sector   | Statistic      | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ship and Boat Building                         | Establishments | 91      | 89      | 87      | 88      | 84      | 81      | 82      | 83      | 78      |
|  | Employees      | 2,773   | 5,601   | 5,686   | 5,178   | 4,956   | 5,098   | 4,936   | 4,903   | 5,274   |
|  | Payroll        | 153,077 | 310,230 | 297,248 | 306,571 | 283,838 | 270,717 | 261,783 | 313,380 | 305,193 |
| Deep Sea Freight Transportation                | Establishments | 39      | 40      | 33      | 33      | 35      | 36      | 32      | 33      | 38      |
|  | Employees      | 860     | 742     | ds      | 790     | 639     | 607     | 615     | 713     | 776     |
|  | Payroll        | 71,515  | 65,818  | 44,902  | 55,106  | 47,119  | 47,952  | 59,864  | 77,406  | 80,651  |
| Deep Sea Passenger Transportation              | Establishments | 1       | NA      | 2       | 2       | 2       | 2       | NA      | NA      | 3       |
|  | Employees      | ds      | NA      | ds      | ds      | ds      | ds      | NA      | NA      | 8       |
|  | Payroll        | ds      | NA      | ds      | ds      | ds      | ds      | NA      | NA      | 518     |
| Coastal and Great Lakes Freight Transportation | Establishments | 48      | 39      | 42      | 48      | 48      | 49      | 45      | 46      | 54      |
|  | Employees      | 1,764   | 1,814   | 2,253   | 2,227   | 2,058   | 2,115   | 1,574   | 1,803   | 2,023   |
|  | Payroll        | 177,549 | 174,686 | 207,831 | 215,950 | 208,286 | 199,415 | 129,590 | 204,370 | 191,427 |
| Port and Harbor Operations                     | Establishments | 26      | 37      | 27      | 25      | 25      | 26      | 29      | 31      | 31      |
|  | Employees      | 439     | 1,381   | 630     | 387     | 395     | 572     | 688     | 780     | 1,029   |
|  | Payroll        | 18,842  | 55,470  | 25,229  | 13,544  | 16,436  | 17,603  | 29,801  | 34,558  | 37,480  |
| Marine Cargo Handling                          | Establishments | 55      | 42      | 48      | 53      | 56      | 57      | 56      | 53      | 60      |
|  | Employees      | 5,259   | 4,373   | 6,390   | 7,451   | 8,179   | 6,687   | 5,030   | 6,608   | 7,252   |
|  | Payroll        | 153,360 | 130,817 | 272,286 | 327,690 | 324,552 | 280,303 | 210,606 | 219,894 | 274,192 |
| Navigational Services to Shipping              | Establishments | 91      | 91      | 89      | 93      | 91      | 80      | 81      | 85      | 89      |
|  | Employees      | 1,448   | 1,676   | 1,485   | 1,588   | 1,415   | 1,430   | 1,187   | 1,573   | 1,615   |
|  | Payroll        | 113,444 | 124,500 | 130,572 | 139,259 | 144,090 | 135,341 | 110,529 | 131,360 | 138,007 |
| Marinas  | Establishments | 144     | 132     | 124     | 128     | 138     | 137     | 134     | 133     | 144     |
|  | Employees      | 1,233   | 1,169   | 1,258   | 1,222   | 1,209   | 1,226   | 1,289   | 2,022   | 1,389   |
|  | Payroll        | 34,928  | 34,711  | 36,461  | 36,776  | 37,054  | 39,658  | 38,913  | 74,614  | 47,870  |

<sup>1</sup> NA = Indicates Not Applicable or these data are confidential and therefore not disclosable.

<sup>2</sup> 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.

<sup>3</sup> ds = Data are suppressed.

# Data Sources



Seafood signs in Solomon's Island, Maryland.  
Photo: NOAA Fisheries/Jacqui Fenner



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# Publications



Birds on pilings.

Photo: NOAA Fisheries/Jacqui Fenner

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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## THEORETICAL

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*Lew, D.*, and J. Whitehead. 2020. Attribute non-attendance as an information processing strategy in stated preference choice experiments: origins, current practices, and future directions. *Mar. Resour. Econ.*, 35(3):285-317. <https://doi.org/10.1086/709440>.

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### Sociocultural Fisheries Research

Clay, P., and L. Colburn. 2020. A practitioner's handbook for fisheries social impact assessment. NOAA Tech. Memo. NMFS-F/SPO-212, 80 p.

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### Protected Resources Economics Research

Lew, D. 2018. Discounting future payments in stated preference choice experiments. *Resource Energy Econ.*, 54:150-164. <https://doi.org/10.1016/j.reseneeco.2018.09.003>.

Wallmo, K., K. Bisack, D. Lew, and D. Squires, eds. 2016. Protected species economics: Concepts in research and management. Vol. 2, 133 p. *Frontiers in Marine Science*, Lausanne, Switzerland.

# Resources

False albacore fun.  
Photo: Paula Prior

### UNITED STATES

#### Federal Agencies

- Office of Science and Technology, NOAA Fisheries | [www.fisheries.noaa.gov/about/office-science-and-technology](http://www.fisheries.noaa.gov/about/office-science-and-technology)
- Marine Recreational Information Program | [www.fisheries.noaa.gov/topic/recreational-fishing-data](http://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/](http://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](http://www.fisheries.noaa.gov/about/alaska-fisheries-science-center)
- Alaska Regional Office, NOAA Fisheries | [www.fisheries.noaa.gov/about/alaska-regional-office](http://www.fisheries.noaa.gov/about/alaska-regional-office)
- Alaska Region, U.S. Fish and Wildlife Service | [www.fws.gov/alaska/](http://www.fws.gov/alaska/)
- District 17, U.S. Coast Guard | [www.pacificarea.uscg.mil/Our-Organization/District-17/](http://www.pacificarea.uscg.mil/Our-Organization/District-17/)

#### State Agencies

- Alaska Department of Fish and Game | [www.adfg.state.ak.us](http://www.adfg.state.ak.us)

#### Councils and Commissions

- North Pacific Fishery Management Council | [www.npfmc.org](http://www.npfmc.org)
- Pacific States Marine Fisheries Commission | [www.psmfc.org](http://www.psmfc.org)
- Fisheries Economics Data Program Pacific States Marine Fisheries Commission | [www.psmfc.org/efin](http://www.psmfc.org/efin)
- International Pacific Halibut Commission | [www.iphc.int](http://www.iphc.int)

### PACIFIC

#### Federal Agencies

- Northwest Fisheries Science Center, NOAA Fisheries | [www.fisheries.noaa.gov/about/northwest-fisheries-science-center](http://www.fisheries.noaa.gov/about/northwest-fisheries-science-center)
- West Coast Regional Office, NOAA Fisheries | [www.fisheries.noaa.gov/about/west-coast-regional-office](http://www.fisheries.noaa.gov/about/west-coast-regional-office)
- Southwest Fisheries Science Center | [www.fisheries.noaa.gov/about/southwest-fisheries-science-center](http://www.fisheries.noaa.gov/about/southwest-fisheries-science-center)
- Pacific Region, U.S. Fish and Wildlife Service | [www.fws.gov/pacific](http://www.fws.gov/pacific)
- California and Nevada, U.S. Fish and Wildlife Service | [www.fws.gov/cno](http://www.fws.gov/cno)
- District 13, U.S. Coast Guard | [www.pacificarea.uscg.mil/Our-Organization/District-13/](http://www.pacificarea.uscg.mil/Our-Organization/District-13/)

#### State Agencies

- California Department of Fish and Wildlife | [www.wildlife.ca.gov](http://www.wildlife.ca.gov)
- Oregon Department of Fish and Wildlife | [www.dfw.state.or.us](http://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](http://www.pcouncil.org)
- Pacific States Marine Fisheries Commission | [www.psmfc.org](http://www.psmfc.org)
- Fisheries Economics Data Program - Pacific States Marine Fisheries Commission | [www.psmfc.org/efin](http://www.psmfc.org/efin)
- International Pacific Halibut Commission | [www.iphc.int](http://www.iphc.int)

### WESTERN PACIFIC

#### Federal Agencies

- Pacific Islands Fisheries Science Center, NOAA Fisheries | [www.fisheries.noaa.gov/about/pacific-islands-fisheries-science-center](http://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](http://www.fisheries.noaa.gov/about/pacific-islands-regional-office)
- Pacific Region, U.S. Fish and Wildlife Service | [www.fws.gov/pacific](http://www.fws.gov/pacific)
- District 14, U.S. Coast Guard | [www.pacificarea.uscg.mil/Our-Organization/District-14/](http://www.pacificarea.uscg.mil/Our-Organization/District-14/)

## State Agencies

- Hawai'i Department of Land and Natural Resources | [www.dlnr.hawaii.gov/](http://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](http://www.dfw.gov.mp/Monument_Page.html)

## Councils and Commissions

- Western Pacific Fishery Management Council | [www.wpcouncil.org](http://www.wpcouncil.org)

## NEW ENGLAND

### Federal Agencies

- Northeast Fisheries Science Center, NOAA Fisheries | [www.fisheries.noaa.gov/about/northeast-fisheries-science-center](http://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](http://www.fisheries.noaa.gov/about/greater-atlantic-regional-fisheries-office)
- Northeast Region, U.S. Fish and Wildlife Service | [www.fws.gov/northeast](http://www.fws.gov/northeast)
- District 1, U.S. Coast Guard | [www.atlanticarea.uscg.mil/Our-Organization/District-1/](http://www.atlanticarea.uscg.mil/Our-Organization/District-1/)

### State Agencies

- Maine Department of Marine Resources | [www.maine.gov/dmr/](http://www.maine.gov/dmr/)
- Rhode Island Department of Environmental Management | [www.dem.ri.gov](http://www.dem.ri.gov)
- Massachusetts Division of Marine Fisheries | [www.mass.gov/orgs/division-of-marine-fisheries](http://www.mass.gov/orgs/division-of-marine-fisheries)
- Connecticut Department of Environmental Protection | [www.ct.gov/deep/](http://www.ct.gov/deep/)
- New Hampshire Fish and Game Department | [www.wildlife.state.nh.us](http://www.wildlife.state.nh.us)

## Councils and Commissions

- New England Fishery Management Council | [www.nefmc.org](http://www.nefmc.org)
- Atlantic States Marine Fisheries Commission | [www.asmfc.org](http://www.asmfc.org)

## MID-ATLANTIC

### Federal Agencies

- Northeast Fisheries Science Center, NOAA Fisheries | [www.fisheries.noaa.gov/about/northeast-fisheries-science-center](http://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](http://www.fisheries.noaa.gov/about/greater-atlantic-regional-fisheries-office)
- Northeast Region, U.S. Fish and Wildlife Service | [www.fws.gov/northeast](http://www.fws.gov/northeast)
- District 5, U.S. Coast Guard | [www.atlanticarea.uscg.mil/Our-Organization/District-5/](http://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/](http://www.fishandboat.com/)
- Fisheries and Boating Service, Maryland Department of Natural Resources | [www.dnr.state.md.us/fisheries](http://www.dnr.state.md.us/fisheries)
- New Jersey Division of Fish and Wildlife | [www.state.nj.us/dep/fgw](http://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/outdoor/568.html](http://www.dec.ny.gov/outdoor/568.html)
- Virginia Marine Resources Commission | [www.dnr.maryland.gov/fisheries](http://www.dnr.maryland.gov/fisheries)

## Councils and Commissions

- Mid-Atlantic Fishery Management Council | [www.mafmc.org](http://www.mafmc.org)
- Atlantic States Marine Fisheries Commission | [www.asmfc.org](http://www.asmfc.org)

## SOUTH ATLANTIC

### Federal Agencies

- Southeast Fisheries Science Center, NOAA Fisheries | [www.fisheries.noaa.gov/about/southeast-fisheries-science-center](http://www.fisheries.noaa.gov/about/southeast-fisheries-science-center)
- Southeast Regional Office, NOAA Fisheries | [www.fisheries.noaa.gov/about/southeast-regional-office](http://www.fisheries.noaa.gov/about/southeast-regional-office)
- Southeast Region, U.S. Fish and Wildlife Service | [www.fws.gov/southeast](http://www.fws.gov/southeast)
- Southwest Region, U.S. Fish and Wildlife Service | [www.fws.gov/southwest](http://www.fws.gov/southwest)



- District 7, U.S. Coast Guard | [www.atlanticarea.uscg.mil/Our-Organization/District-7/](http://www.atlanticarea.uscg.mil/Our-Organization/District-7/)

### State Agencies

- Florida Fish and Wildlife Conservation Commission | [www.myfwc.com/](http://www.myfwc.com/)
- Coastal Resources Division, Georgia Department of Natural Resources | [www.coastalgadnr.org/](http://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](http://www.dnr.sc.gov)

### Councils and Commissions

- South Atlantic Fishery Management Council | [www.safmc.net](http://www.safmc.net)
- Atlantic States Marine Fisheries Commission | [www.asmfc.org](http://www.asmfc.org)

## GULF OF MEXICO

### Federal Agencies

- Southeast Fisheries Science Center, NOAA Fisheries | [www.fisheries.noaa.gov/about/southeast-fisheries-science-center](http://www.fisheries.noaa.gov/about/southeast-fisheries-science-center)
- Southeast Regional Office, NOAA Fisheries | [www.fisheries.noaa.gov/about/southeast-regional-office](http://www.fisheries.noaa.gov/about/southeast-regional-office)
- Southeast Region, U.S. Fish and Wildlife Service | [www.fws.gov/southeast](http://www.fws.gov/southeast)
- Southwest Region, U.S. Fish and Wildlife Service | [www.fws.gov/southwest](http://www.fws.gov/southwest)
- District 8, U.S. Coast Guard | [www.atlanticarea.uscg.mil/Our-Organization/District-8/](http://www.atlanticarea.uscg.mil/Our-Organization/District-8/)

### State Agencies

- Florida Fish and Wildlife Conservation Commission | [www.myfwc.com/](http://www.myfwc.com/)
- Marine Resources Division, Alabama Department of Conservation and Natural Resources | [www.outdooralabama.com](http://www.outdooralabama.com)
- Mississippi Department of Marine Resources | [www.dmr.ms.gov/](http://www.dmr.ms.gov/)
- Louisiana Department of Wildlife and Fisheries | [www.wlf.louisiana.gov/](http://www.wlf.louisiana.gov/)
- Texas Parks and Wildlife Department | [www.tpwd.texas.gov/](http://www.tpwd.texas.gov/)

### Councils and Commissions

- Gulf of Mexico Fishery Management Council | [www.gulfcouncil.org](http://www.gulfcouncil.org)
- Gulf States Marine Fisheries Commission | [www.gsmfc.org](http://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/](http://www.oecd.org/)
- Fisheries and Aquaculture Department, Food and Agriculture Organization of the United Nations | [www.fao.org/fishery/capture/en](http://www.fao.org/fishery/capture/en)
- Marine Stewardship Council | [www.msc.org](http://www.msc.org)

# Glossary



Robbie's in Islamorada, Florida.  
Photo: NOAA Fisheries/Jacqui Fenner

### TERMS AND DEFINITIONS

**Angler<sup>1</sup>** — A person catching fish with no intent to sell, including people releasing the catch. Also known as a recreational fisherman.

**Annual Payroll<sup>2</sup>** — 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<sup>3</sup>** — 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<sup>1</sup>** — 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<sup>1</sup>** — 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<sup>4</sup>** — 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<sup>5</sup>** — 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)<sup>6</sup> —**

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)<sup>1</sup> —**

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)<sup>7</sup> —**

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<sup>1</sup> —** 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<sup>8</sup> —** 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<sup>9</sup> —** 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<sup>8,10,11</sup> —** 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**<sup>8,10,11</sup> — 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**<sup>12</sup> — 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**<sup>13</sup> — 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**<sup>14</sup> — 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)**<sup>14</sup> — 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)**<sup>1</sup> — 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**<sup>8,11</sup> — 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**<sup>1</sup> — 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**<sup>15</sup> — 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)**<sup>15</sup> — 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**<sup>15</sup> — 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**<sup>1</sup> — 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)**<sup>12</sup> — 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**<sup>1</sup> — 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**<sup>8,10,11</sup> — Income impacts include personal income (wages and salaries) and proprietors' income (income from self-employment).

**Individual Fishing Quota (IFQ)**<sup>1</sup> — 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)**<sup>1</sup> — 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**<sup>1</sup> — 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**<sup>1</sup> — 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**<sup>15</sup>

— 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**<sup>6</sup> — 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)**<sup>1</sup>

— 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**<sup>15</sup> — 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<sup>3</sup>** — 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<sup>16</sup>** — When the harvesting capability within a given fishery exceeds the level of harvest allowed for that fishery.

**Overcapitalization<sup>9</sup>** — When the amount of harvesting capacity in a fishery exceeds the amount needed to harvest the desired amount of fish at least cost.

**Overfished<sup>1</sup>** — 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<sup>1</sup>** — 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<sup>17</sup>** — 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)**<sup>15</sup> — 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 United States; a resident in the regional and state tables refers to an angler who resides in the state where they fished.

**Sales Impacts**<sup>8,10,11</sup> — 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**<sup>17</sup> — 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**<sup>1</sup> — 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**<sup>1</sup> — 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**<sup>14</sup> — 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**<sup>8,10,11</sup> — 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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- <sup>3</sup> U.S. Census Bureau. Nonemployer Statistics. Available at: <https://www.census.gov/programs-surveys/nonemployer-statistics.html> [accessed April 1, 2020].
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- <sup>9</sup> FAO Fisheries Department. Fisheries Term Portal. Available at: <http://www.fao.org/faoterm/collection/fisheries/en/> [accessed April 1, 2020].
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- <sup>11</sup> Lovell, S. J., J. Hilger, N. A. Olsen, and S. Steinback. 2020. The Economic Contribution of Marine Angler Expenditures on Fishing Trips in the United States, 2017. NOAA Tech. Memo. NMFS-F/SPO-201, 80p. Available at: <https://spo.nmfs.noaa.gov/content/tech-memo/economic-contribution-marine-angler-expenditures-fishing-trips-united-states-2017> [accessed March 27, 2020].
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Open ocean.  
Photo: NOAA Fisheries/Jacqui Fenner

