

# Fisheries Economics of the United States 2011

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-128  
December 2012





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# Fisheries Economics of the United States, 2011

Economics and Social Analysis Division  
Office of Science and Technology  
National Marine Fisheries Service  
1315 East-West Highway, 12th floor  
Silver Spring, MD 20910

**NOAA Technical Memorandum NMFS-F/SPO-128  
December 2012**



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Front cover photo: Shem Creek, South Carolina (photo credit: Amber Von Harten)  
Inside cover photo: Nanticoke River, Maryland (photo credit: Sean Howard)

## Contents

<b>Preface</b>	<b>v</b>
<b>In Memory</b>	<b>vii</b>
<b>National Overview</b>	<b>1</b>
United States Summary . . . . .	2
United States Tables . . . . .	13
<b>North Pacific</b>	<b>16</b>
North Pacific Summary . . . . .	17
Alaska Tables . . . . .	21
<b>Pacific</b>	<b>24</b>
Pacific Summary . . . . .	25
Pacific Region Tables . . . . .	30
California Tables . . . . .	32
Oregon Tables . . . . .	35
Washington Tables . . . . .	38
<b>Western Pacific</b>	<b>42</b>
Western Pacific Summary . . . . .	43
Hawai'i Tables . . . . .	47
<b>New England</b>	<b>50</b>
New England Summary . . . . .	51
New England Region Tables . . . . .	55
Connecticut Tables . . . . .	57
Maine Tables . . . . .	60
Massachusetts Tables . . . . .	63
New Hampshire Tables . . . . .	66
Rhode Island Tables . . . . .	69
<b>Mid-Atlantic</b>	<b>72</b>
Mid-Atlantic Summary . . . . .	73
Mid-Atlantic Region Tables . . . . .	77
Delaware Tables . . . . .	79
Maryland Tables . . . . .	82

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New Jersey Tables . . . . .	85
New York Tables . . . . .	88
Virginia Tables . . . . .	91
<b>South Atlantic</b>	<b>94</b>
South Atlantic Summary . . . . .	95
South Atlantic Region Tables . . . . .	99
East Florida Tables . . . . .	101
Georgia Tables . . . . .	104
North Carolina Tables . . . . .	107
South Carolina Tables . . . . .	110
<b>Gulf of Mexico</b>	<b>114</b>
Gulf of Mexico Summary . . . . .	115
Gulf of Mexico Region Tables . . . . .	120
Alabama Tables . . . . .	122
West Florida Tables . . . . .	125
Louisiana Tables . . . . .	128
Mississippi Tables . . . . .	131
Texas Tables . . . . .	134
<b>Data Sources</b>	<b>138</b>
<b>Publications</b>	<b>142</b>
<b>Resources</b>	<b>161</b>
<b>Glossary</b>	<b>167</b>

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# Preface

## **Fisheries Economics of the U.S., 2011**

*Fisheries Economics of the U.S., 2011* is the sixth 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 2002 to 2011 and provides descriptive statistics for the following categories: economic impacts of the seafood industry, commercial fisheries landings, revenue, and price trends; angler expenditures and economic impacts of recreational fishing, recreational fishing catch, effort, and participation rates; and employer and non-employer establishment, payroll, employees, and annual receipt information for fishing-related industries.

## **Sources of Data**

Information in this report came from many sources. Commercial landings, revenue, and price data, and recreational fishing effort and participation data was primarily obtained from the Fisheries Statistics Division, Office of Science and Technology, NOAA Fisheries. Other data sources included the: Alaska Fisheries Science Center, NOAA Fisheries; Alaska Department of Fish and Game; California Department of Fish and Game; Oregon Department of Fish and Wildlife; Washington Department of Fish and Wildlife; the Pacific Coast Fisheries Information Network (PacFIN); Texas Department of Parks and Wildlife Department; and Western Pacific Fisheries Information Network (WPacFIN). Economic impacts from the commercial fishing industry and recreational fisheries 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 Bureau of Labor Statistics.

## **Acknowledgments**

Many people helped put this publication together. Rita Curtis is Division Chief and originator of this series. Cameron Speir is editor and lead author for this report. Primary analysts and collaborators include Erin Steiner, Sabrina Lovell, Lauren Dolinger Few, and Ben Fissel. Other analysts and contributors include Ayeisha Brinson, Rita Curtis, Ron Felthoven, Karen Greene, Jean Lee, Qian Li, Michael Liddel, Laura Johansen, and Avi Litwack.

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## In Memory of Dr. Jim Kirkley

We would like to dedicate this volume of *Fisheries Economics of the U.S.* to Dr. Jim Kirkley, PhD, professor of Marine Science at the Virginia Institute of Marine Science, College of William and Mary. Dr. Kirkley provided invaluable expertise in development of the Commercial Seafood Impacts model.

The information obtained from his models have been an integral piece of the report since its inception. Over time, these data have become a fundamental component of the public's understanding of the role of the commercial seafood industry.

Today, this information is included in a wide array of documents including congressional briefing documents and nationally syndicated newspaper articles.

Dr. Kirkley was one of the first economists to develop models to demonstrate the comprehensive effects of fisheries in the national economy. The community of fisheries economists will always be in debt to Dr. Kirkley's contributions.

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Dungeness crabs, Moss Landing, California (photo credit: Richael Young)



# National Overview

## 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, also known as the Magnuson-Stevens Act (P.L. 94-265 as amended by P.L. 109-479). NOAA Fisheries or the National Marine Fisheries Service (NMFS) is the federal agency delegated authority from the Secretary of Commerce to oversee fishing activities in federal waters. Federal fisheries are generally defined as fishing activities that are prosecuted between 3 and 200 nautical miles from the coastline. Generally, individual states retain management authority over fishing activities within 3 nautical miles of their coasts.

Nationwide, there are 45 fishery management and ecosystem plans<sup>1</sup> that provide a framework for managing the harvest of 230 major fish stocks or stock complexes that comprise 90% of the commercial harvest. These fishery management plans (FMPs) are developed by Regional Fishery Management Councils (FMCs) in each of eight regions nationwide: the North Pacific, Western Pacific, Pacific, New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, and Caribbean Regions. Once an FMP is developed, it must be approved by the Secretary of Commerce in consultation with NOAA Fisheries before it is implemented and enforced.

### Regional Fishery Management Councils

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

Of the 230 major fish stocks and stock complexes currently managed under a FMP, the overfished status of 177 stocks or stock complexes and the overfishing status of 194 stocks or stock complexes is known. Currently, 39 stocks or stock complexes are categorized as overfished and 32 are categorized as subject to overfishing<sup>2</sup>.

Less is known about the 248 minor stocks or stock complexes. The overfished status of 42 of these stocks or stock complexes is known and four of these are currently considered overfished. The overfishing status of 2 of the 248 minor stocks or stock complexes is known and NA of these are currently considered to be subject to overfishing<sup>2</sup>.

<sup>1</sup>Fishery management plans and fishery ecosystem plans for each region covered in this report are listed in their respective sections. The Caribbean region and its four FMPs are not currently included in this report. These FMPs are developed by the Caribbean Fishery Management Council (San Juan, Puerto Rico). In addition, the Atlantic Highly Migratory Species FMP is not listed in this report. This FMP is developed by the Office of Sustainable Fisheries at NOAA Fisheries Headquarters (Silver Spring, MD).

<sup>2</sup>Fish Stock Sustainability Index (FSSI) - 2012 Quarter 3 Update through September 30, 2012. The NOAA Fisheries Office of Sustainable Fisheries. <http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm>

<sup>3</sup>[http://www.nmfs.noaa.gov/ia/agreements/regional\\_agreements/intlagree.html](http://www.nmfs.noaa.gov/ia/agreements/regional_agreements/intlagree.html)

## Transboundary and International Fisheries

NOAA Fisheries is also actively involved in negotiating conservation measures and fishery allocations for fisheries conducted in areas where the Exclusive Economic Zone (EEZ) of the U.S. overlaps with other nations (transboundary areas), and in areas beyond the U.S. EEZ (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 of 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.

### Regional Fishery Management Organizations

- International Convention for the Conservation of Atlantic Tunas (Basic Instrument for the International Commission for the Conservation of Atlantic Tunas - ICCAT),
- Convention for the Conservation of Salmon in the North Atlantic Ocean (Basic Instrument for the North Atlantic Salmon Conservation Organization - NASCO),
- Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries (Basic Instrument for the Northwest Atlantic Fisheries Organization - NAFO),
- Convention for the Establishment of an Inter-American Tropical Tuna Commission (IATTC),
- Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean (Basic Instrument for the North Pacific Anadromous Fish Commission - NPAFC),
- Western and Central Pacific Fisheries Convention (WCPFC),
- Asia-Pacific Fishery Commission (APFIC),
- Fishery Committee for the Eastern Central Atlantic (CECAF)

Regional Fishery Management Organizations (RFMOs) are multinational organizations with interests in transboundary and international fish stocks and associated fishing activities. NOAA Fisheries is party to eight RFMOs globally<sup>3</sup>. The goal of these RFMOs is to adopt measures for the conservation and coordinated management of target species such as bluefin tuna. RFMOs also provide 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 to target species. The commitment to conserving and protecting all species associated with, or affected by, fishing activities is outlined in the Food and Agricultural Organization's (FAO's) Code of Conduct for Responsible Fisheries established in 1995.

Another issue of particular concern for NOAA Fisheries is the problem of illegal, unreported, and unregulated (IUU) fishing activities in international waters. The RFMOs report estimates that in 2011, there were 42 vessels flying the national flags of 22 nations participating in IUU fishing activities.<sup>1</sup> NOAA Fisheries is actively working bilaterally and multilaterally with other nations on the adoption of strategies to reduce the level of IUU fishing around the world.

### *Threatened and Engangered Species*

NOAA Fisheries is also the lead agency for the conservation and protection of over 87 fish and non-fish species that fall within the purview of the Endangered Species Act (ESA). Status determinations related to the viability and health of these populations have been made. The status of these populations have been determined as 'threatened' or 'endangered', and, in one case, 'recovered'.

Currently, there are 44 marine and anadromous fish species and subspecies<sup>2</sup> that are protected under the ESA. These species include: Atlantic salmon, coho salmon, green sturgeon, shortnose sturgeon, smalltooth sawfish, steelhead trout, and totoaba. Many of these species are further delineated into distinct population segments or evolutionarily significant units that are based on genetic similarities within geographically- or reproductively-isolated populations.

#### **Endangered and Threatened Species under NMFS Jurisdiction**

Species Group	Number of Species
Marine and Anadromous Fish	44
Marine Mammals: Whales	12
Marine Mammals: Dolphins	2
Marine Mammals: Porpoise	1
Marine Mammals: Seals	5
Marine Mammals: Sea Lions	2
Sea Turtles	16
Marine Invertebrates	4
Marine Plants	1
<b>Total</b>	<b>87</b>

In addition to threatened and endangered fish species, NOAA Fisheries is also involved in the conservation and protection of ESA-listed non-fish species. Marine mammals such as whales, dolphins, and seals, as well as species of sea turtles, marine invertebrates, and one marine plant are listed. There are currently 102 candidate species for listing (82 are coral species) and 7 species proposed for listing.

In 1970, the Eastern North Pacific gray whale was listed under the ESA, but has since made a comeback and was considered 'recovered' in 1994. The Caribbean monk seal, listed in 1967, was delisted in 2008. This species is considered to be extinct.

<sup>1</sup>An additional 33 vessels with unknown country affiliation also participate in IUU fishing activities.

<sup>2</sup>Subspecies includes distinct population segments and evolutionarily significant units, terms defined under the ESA.

<sup>3</sup>The U.S. Fish and Wildlife Service provides protection for walrus, manatees, otters, and polar bears.

<sup>4</sup>The 1996 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act included this requirement.

<sup>5</sup>The Habitat Assessment Improvement Plan is available at: [http://www.st.nmfs.noaa.gov/st4/documents/HabitatAssesmentImprovementPlan\\_052110.PDF](http://www.st.nmfs.noaa.gov/st4/documents/HabitatAssesmentImprovementPlan_052110.PDF)

In addition to endangered and threatened species under the Endangered Species Act, NOAA Fisheries is also responsible for providing protection for marine mammals under the Marine Mammal Protection Act. Passed in 1972, Congress recognized that protecting populations of marine mammals contributes to the overall health of marine ecosystems.

NOAA Fisheries is responsible for preventing the harrassment, capture, or killing of whales, dolphins, porpoises, seals, and sea lions.<sup>3</sup> However, exceptions are made for scientific research, unintended interactions with commercial fisheries, subsistence and traditional uses by Alaska natives, and public display at some aquaria.

### *Essential Fish Habitats*

Sustainable commercial and recreational fisheries depend on healthy habitats. These habitats include rivers, estuaries, and the open ocean where marine and anadromous species feed, grow, and reproduce. Consideration of these habitat areas are 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.<sup>4</sup> Habitat areas that are necessary for a fish species' growth, reproduction, and development are considered EFH. To the extent practicable, NOAA Fisheries and the Councils must minimize adverse effects to EFH caused by fishing activities.

Though not required, habitat areas of particular concern (HAPC) can be identified to help focus EFH conservation efforts. HAPCs are a subset of EFH and are particularly vulnerable or ecologically important. To date, approximately 100 HAPCs have been designated including specific coral, seamount, and spawning areas.

A recent effort undertaken by the NOAA Fisheries Office of Science and Technology was to create a Habitat Assessment Improvement Plan<sup>5</sup> to advance NOAA Fisheries' ability to identify EFH and HAPCs and to provide information needed to assess impacts to EFH.

### *Catch Share Programs*

A variety of market-based tools are available to fishery managers. NOAA Fisheries is currently implementing several different types of catch share programs such as limited access privilege programs (LAPPs), which include individual fishing quota programs (IFQs), regional fishery associations, and fishing community

## Existing Catch Shares Programs

Region	Program	First Year	Value 2010 \$ million	Pre-catch share price	Post-catch share price	Unit
New England	Northeast Scallop IFQ	2010	20	6.69	8.78	per lb
New England	Northeast Multispecies Sectors	2010	87.1	1.31	1.43	per lb
Mid-Atlantic	Atlantic Surf Clam ITQ	1990	26	13.32	11.72	per bushel
Mid-Atlantic	Atlantic Ocean Quahog ITQ	1990	20.8	6.1	6.84	per bushel
Mid-Atlantic	Golden Tilefish IFQ	2010	5.3	2.57	2.82	per lb
South Atlantic	Wreckfish IFQ	1992	ND	ND	ND	
Gulf of Mexico	Red Snapper IFQ	2007	10.3	3.32	3.36	per lb
Gulf of Mexico	Grouper-Tilefish IFQ	2010	14.3	3.16	3.23	per lb
Pacific	Pacific Coast Sablefish Permit Stacking	2002	14.9	1.84	4.83	per lb
Pacific	Pacific Groundfish Trawl Rationalization	2011	52	0.22	0.23	per lb
North Pacific	Western Alaska CDQ	1992	NA	NA	NA	
North Pacific	Alaska Halibut IFQ	1995	199	1.94	4.58	per lb
North Pacific	Alaska Sablefish IFQ	1995	99.8	2.8	4.38	per lb
North Pacific	AFA Pollock Co-ops	1998	226.2	314	321	per mt
North Pacific	Alaska Weatervane Scallop Co-ops	2001	ND	ND	ND	
North Pacific	BSAI Crab Rationalization	2005	130.5	1.9	2.04	per lb
North Pacific	Non-Pollock Trawl Catcher/Processor Co-ops	2008	245.3	1082	939	per mt

quotas<sup>1</sup>; community development quota programs (CDQs); fishing cooperatives; and sector allocation programs<sup>2</sup>. Catch share programs are a fishery management tool that dedicates a secure share of quota that entitles individual fishermen, fishing cooperatives, fishing communities, or other entities to harvest a fixed amount of fish.

With clearly defined fishing privileges, fishermen no longer need to “race to fish”, but instead can make harvest decisions based upon market conditions, improving economic performance, and weather conditions, which improves crew safety. These incentives can reduce the cost of taking conservation actions and can encourage individual fishing choices that are more consistent with sustainable fishing practices such as reducing bycatch of species not being targeted for harvest and reducing the wasteful practice of “discarding”, i.e., throwing back low-value or undersized catch, which is often associated with high mortality rates. The ability to align fishermen’s economic incentives with the long-term biological health of the fishery singularly distinguishes catch share programs from traditional fishery management strategies (i.e., trip limits, gear restrictions, etc.).

The NOAA catch shares policy<sup>3</sup>, released in 2010, encourages well-designed catch share programs to help maintain or rebuild fisheries, and sustain fishermen, communities and vibrant working waterfronts, including the cultural and resource access traditions that have been part of this country since its founding. Nationwide, there are 15 catch share programs currently in operation; some programs have been in operation for more than 20 years and others have been implemented more recently.

Recently, there has been an effort to characterize the federal catch share programs and develop standard performance indicators that measure the economic performance of catch share programs, regardless of their design. The standard performance measures include metrics for catch and landings, effort, revenue, accumulation limits and cost recovery. These indicators over the duration of the catch share program and compared to the Baseline Period, which is defined as the average of the three years prior to the Program’s implementation. One of the indicators measuring economic efficiency, average price of catch share species reveals that with the exception of two catch share programs (Atlantic Surf Clam Individual Transferable Quota and Non-Pollock Trawl Catcher/Processor Groundfish Cooperatives Amendment 80), the average price for the most recent year is greater than average prices during the baseline period. Nationwide, there are 15 catch share programs currently in operation in six different regions. The total landings revenue of the fisheries for which information was available was about \$1.2 billion in 2010.

### *Other Market-based Management Tools*

Vessel or permit buyback programs are another market-based tool used by fishery managers. Under these programs, fishing vessels or permits are purchased by the government to permanently decrease the number of participants in the fishery to ease fishing-related pressure on marine resources. To date, there have been ten buyback programs instituted nationwide. The cost of seven<sup>4</sup> of these buyback programs totaled of \$397 million. Eighty-five percent of this total cost was funded by loans from the federal government that will be repaid by the commercial fishing industry.

License limitation 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 a fishermen or vessels with permission to fish. Unlike catch share programs, license limitation programs have been implemented for almost all federally-managed commercial fisheries and have been implemented in every region except the Caribbean.

Ecolabels are a market-based tool available to improve fisheries sustainability. 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. This ecolabel is intended to inform the consumer or purchaser of the fishery product of this compliance. 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.

One example of an ecolabeling program is run by the Marine Stewardship Council (MSC), one of the largest and most recognizable ecolabeling programs in the world. Under this program, MSC sets standards for sustainable fishing practices and seafood traceability. Capture fisheries can voluntarily seek certification that it meets these standards from an accredited third-party certifier. If a fishery meets a set of performance standards then its products can bear the MSC logo and have access to wholesalers and retailers that have been approved through the MSCs chain-of-custody certification. There are currently 184 fisheries worldwide that meet MSC sustainability standards,<sup>5</sup> 19 of which are U.S. fisheries.

<sup>1</sup>See Section 303(A) of the Magnuson-Stevens Act for more information

<sup>2</sup>For more information about LAPPs and other catch share programs, please see *Excess Harvesting Capacity in U.S. Fisheries: A Report to Congress* available at: [www.nmfs.noaa.gov/msa2007/docs/042808\\_312\\_b\\_6\\_report.pdf](http://www.nmfs.noaa.gov/msa2007/docs/042808_312_b_6_report.pdf) and *National Assessment of Excess Harvesting Capacity in Federally Managed Commercial Fisheries* available at: <http://spo.nmfs.noaa.gov/tm/spo93.pdf>.

<sup>3</sup>[http://www.nmfs.noaa.gov/sfa/domes\\_fish/catchshare/index.htm](http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm)

<sup>4</sup>This total excludes three buyback programs associated with Northwest Pacific salmon disasters in 1994, 1995, and 1998 because data were not available.

<sup>5</sup>For more information about the Marine Stewardship Council and its certification process is available at: <http://www.msc.org/track-a-fishery/certified>.

## U.S. Fisheries with MSC Certification

Region	Fishery	Certified
North Pacific	Alaskan salmon	Sep 2000; Nov 2007
North Pacific	Bering Sea/Aleutian Islands (BSAI) pollock	Feb 2005; Dec 2010
North Pacific	Gulf of Alaska (GOA) pollock	Apr 2005; Sep 2010
North Pacific	US North Pacific halibut	Apr 2006
North Pacific	US North Pacific sablefish	May 2006
Pacific	Pacific albacore tuna - (American Albacore Fishing Association)	Aug 2007
Pacific	Oregon pink shrimp	Dec 2007
Mid-Atlantic	Atlantic deep sea red crab	Sep 2009
Pacific	Pacific hake mid-water trawl	Oct 2009
North Pacific	BSAI Pacific cod	Jan 2010
North Pacific	GOA Pacific cod	Jan 2010
North Pacific	North Pacific albacore tuna (American Western Fish Boat Owners Association)	Mar 2010
North Pacific	Bering Sea and Aleutian Islands flatfish	Jun 2010
North Pacific	Gulf of Alaska flatfish	Jun 2010
Pacific	Oregon dungeness crab	Dec 2010
Southeast	Southeast Atlantic swordfish	Dec 2011
Southeast	Louisiana blue crab	Mar 2012
Northeast & Mid-Atlantic	US Atlantic spiny dogfish	Aug 2012

## Commercial Fisheries

Commercial fishermen in the U.S. harvested 9.9 billion pounds of finfish and shellfish in 2011, earning \$5.3 billion for their catch. Pacific salmon (\$618 million) followed by sea scallop (\$585 million), shrimp (\$536 million), and American lobster (\$423 million) contributed most to total revenue in the U.S. In terms of pounds landed, walleye pollock (2.8 billion pounds), menhaden (1.9 billion), and Pacific salmon (780 million) comprised over half of total pounds landed in 2011.

## Key U.S. Commercial Species

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

When looking at key species or species groups, commercial fishermen in Alaska caught the most salmon (738 million pounds) and earned \$565 million for their catch in 2011. Tuna was caught in large numbers in Hawai'i (19 million pounds) and generated \$67 million in landings revenue.

On the East Coast, Maine fishermen contributed most to the total landings of American lobster (105 million pounds) and earned \$334 million for their catch in 2011. In Massachusetts, sea scallop was a major contributor to total revenue, earning \$331 million for 33 million pounds landed. More blue crab was caught in Maryland (50 million pounds) than any other state, earning fishermen in this state over \$59 million. Louisiana landed over half of the menhaden in 2011 with fisherman landing 1.1 billion pounds and generating \$94 million in landings revenue.

In the Gulf of Mexico, shrimp is a highly valued species. Fishermen in Texas earned \$215 million for their catch (87 million pounds). Although, more shrimp was landed in Louisiana (92 million pounds) the total landings revenue was less (\$133 million). The ex-vessel price in Texas (\$2.47) was greater than that in Louisiana (\$1.44).

<sup>1</sup>In earlier years, the NMFS Commercial Fishing & Seafood Industry Input/Output Model did not separate out the import sector but rather only included the commercial harvester, seafood processors and dealers, seafood wholesalers and distributors and retail sectors. Note that 2007 and 2008 estimates have been updated using the newer version of the model. For more information, see: [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)

*Economic Impacts<sup>1</sup>*

In this report, the U.S. seafood industry includes the commercial harvest sector, seafood processors and dealers, seafood wholesalers and distributors, importers, and seafood retailers. In 2011, this industry supported approximately 1.2 million full- and part-time jobs and generated \$129 billion in sales impacts, \$37 billion in income impacts, and \$55 billion in value added impacts.

**Commercial Economic Impacts Trends for the United States**  
(thousands of dollars)

	2008	2009	2010	2011
Jobs	1,144,353	1,029,542	1,196,683	1,233,204
Income	34,544,909	31,556,643	36,269,724	36,568,695
Sales	126,175,684	116,224,548	133,135,986	129,386,335
Value Added	52,726,594	48,282,319	55,434,189	55,321,482
Total Revenue	4,399,402	3,894,864	4,511,171	5,338,063

Seafood retailers, which generated the largest job and value added impacts, contributed 618,000 jobs, \$32 billion in sales impacts, and \$17.7 billion in value added impacts to the national economy in 2011. Imports, which generated the largest sales impacts, contributed 176,000 jobs, \$48.4 billion in sales impacts, and \$14.8 billion in value added impacts. The wholesalers and distributors sector was the smallest of the seafood industry sectors and contributed 54,000 jobs, \$7.5 billion in sales impacts, and \$3.5 billion in value added impacts to the national economy.

Employment impacts from the U.S. seafood industry were higher in 2011 than in 2010. Overall, employment impacts increased by 3.1%, with the gains concentrated in the commercial harvesting (up 17%) and retail (up 8.8%) sectors. Income impacts were 0.82% higher in 2011. Sales (down -2.8%) and value added (down -0.2%) impacts were somewhat smaller than the previous year. For all four types of impacts, the impacts increased substantially in the commercial harvesting and retail sectors.

The greatest employment impacts generated by the seafood industry were generated in California with 122,000 jobs, followed by Massachusetts (98,000 jobs), Florida (72,000 jobs), and Washington (67,000 jobs). The lowest number of jobs were supported in Delaware (339 jobs).

**Jobs supported by the U.S. Seafood Industry (2011)**

State	Jobs	State	Jobs
United States	1,233,204	Oregon	18,562
California	122,074	Maryland	15,274
Massachusetts	98,358	Georgia	11,137
Florida	72,341	Alabama	11,011
Washington	67,007	Rhode Island	9,157
Alaska	63,295	North Carolina	8,850
New Jersey	43,638	Hawai'i	8,627
New York	41,847	New Hampshire	5,968
Louisiana	32,818	Mississippi	5,550
Maine	31,127	Connecticut	4,514
Texas	27,717	South Carolina	1,547
Virginia	22,082	Delaware	339

The highest sales impacts were generated by the seafood industry in California with \$20 billion in sales, followed by Florida (\$14 billion), Washington (\$8 billion), and Massachusetts (\$7.8 billion). The importers sector generated the highest level of sales impacts in all four states. The lowest sales were generated in Delaware (\$44 million).

**Total sales generated by the U.S. Seafood Industry (2011)**  
(thousands of dollars)

State	In-State Sales	State	In-State Sales
United States	129,386,335	Maine	1,734,058
California	20,053,619	Georgia	1,489,958
Florida	14,250,006	Oregon	1,351,116
Washington	8,026,068	Rhode Island	1,024,748
Massachusetts	7,754,140	North Carolina	795,541
New Jersey	6,563,733	New Hampshire	766,257
New York	5,102,910	Connecticut	740,263
Alaska	4,684,638	Hawai'i	694,228
Texas	2,277,959	Alabama	499,805
Virginia	1,866,659	Mississippi	247,106
Louisiana	1,801,568	South Carolina	88,131
Maryland	1,743,095	Delaware	43,746

The greatest value added impacts were generated by the seafood industry in California with \$7.2 billion in sales, followed by Florida (\$4.8 billion), Washington (\$3.3 billion), and Massachusetts (\$3.1 billion). The smallest value added impacts were generated in Delaware (\$15 million).

**Total value added impacts generated by the U.S. Seafood Industry (2011)**

(thousands of dollars)

State	Value Added	State	Value Added
United States	55,321,482	Maryland	665,883
California	7,168,389	Oregon	633,483
Florida	4,778,502	Georgia	548,826
Washington	3,297,368	Rhode Island	397,018
Massachusetts	3,090,449	North Carolina	329,451
Alaska	2,493,124	Hawai'i	311,097
New Jersey	2,407,754	New Hampshire	287,785
New York	1,801,303	Connecticut	257,905
Texas	1,002,928	Alabama	250,171
Louisiana	877,911	Mississippi	125,430
Maine	829,833	South Carolina	46,495
Virginia	800,243	Delaware	14,661

*Landings Revenue*

Landings revenue in the U.S. totaled \$5.3 billion in 2011. This was a 69% increase (17% increase in real terms) from 2002 levels (\$3.2 billion) and a 18% increase (9.1% increase in real terms) relative to 2010 (\$4.5 billion). Both the finfish and shellfish components contributed to the increasing landing revenues trend. Totaling \$2.6 billion in 2011, finfish revenue experienced a 88% increase (31% increase in real terms) from 2002 to 2011 and increased 19% (9.4% increase in real terms) from 2010 to 2011.

U.S. shellfish revenue totaled \$2.7 billion in 2011, increasing 53.5% (6.6% increase in real terms) from 2002 to 2011 and increased 18% (a 8.9% increase in real terms) from 2010 to 2011.

**Total Landings Revenue by Region (2011)**  
(thousands of dollars)

Region	Total Revenue	Region	Total Revenue
United States	5,338,063	Pacific	710,495
North Pacific	1,911,540	Mid-Atlantic	527,493
New England	1,109,057	South Atlantic	171,302
Gulf of Mexico	818,017	Western Pacific	91,513

The ten U.S. key species and species groups comprised 63% of total revenue in 2011. Of these, Pacific salmon, sea scallop, shrimp, American lobster, and walleye pollock contributed most to total revenue in the U.S. in 2011. These species or groups totaled approximately \$2.5 billion in 2011 or 47% of total revenue. The largest increases in total revenue among the national key species or species groups from 2002 to 2011 were experienced by: Pacific salmon (296%, 175% in real terms), sea scallop (190%, 101% in real terms), and sablefish (142%, 68% in real terms).

All key species or species groups showed increases in nominal revenue from 2002 to 2011, though three species groups decreased in real revenue over that time period: blue crab (down less than 1%), menhaden (down 14%), and shrimp (down 29%). Relative to 2010 totals, key species or species groups with the largest increases in total revenue in 2011 were: sablefish (37%, 26% in real terms), menhaden (34%, 24% in real terms), and sea scallop (28%, 18% in real terms).

**Total Landings Revenue by State (2011)**  
(thousands of dollars)

State	Total Revenue	State	Total Revenue
Alaska	1,911,540	Maryland	76,722
Massachusetts	565,238	Rhode Island	75,956
Maine	424,712	North Carolina	71,177
Louisiana	333,619	East Florida	60,570
Washington	331,404	Alabama	50,941
Texas	239,082	New York	37,625
New Jersey	214,191	Mississippi	30,300
California	201,269	New Hampshire	23,483
Virginia	191,665	South Carolina	23,268
West Florida	164,076	Connecticut	19,668
Oregon	148,337	Georgia	16,295
Hawai'i	91,513	Delaware	7,091

Overall, the greatest portion of the nation's landings revenue was generated in Alaska (\$1.9 billion), which contributed 36% to the U.S. total. Alaska also contributed more than any other state to total U.S. finfish revenue (\$2.6 billion), accounting for 64% of total finfish revenue. More than half of Alaska's finfish landings revenue came from walleye pollock and salmon. Massachusetts (\$433 million) and Maine (\$381 million) contributed most to total U.S. shellfish revenue, contributing 15.8% and 13.9%, respectively. Sea scallop accounted for most of the revenue generated in Massachusetts and American lobster contributed the most to revenue in Maine.

## Commercial Fisheries Facts

### Landings revenue

- The ten key U.S. key species or species groups accounted for 63% of total landings revenue in 2011.
- Finfish and other fishery products (\$2.6 billion) contributed slightly less than shellfish (\$2.7 billion) to total landings revenue in the U.S. in 2011.
- Together, Pacific salmon and walleye pollock accounted for 38% of total finfish revenue.
- Sea scallop, shrimp, and American lobster earned the most in shellfish revenue in 2011, contributing 21.3%, 19.5%, and 15.4%, respectively.
- Pacific salmon had the largest one-year increase in landings revenue over the 10 year time period, increasing 52% from \$199 million in 2003 to \$303 million in 2004.
- Pacific halibut had the largest decrease in landings revenue over the 10 year time period, decreasing 35% from \$218 million in 2008 to \$141 million in 2009.

### Landings

- The U.S. key species and species groups accounted for 64% of total landings in 2011.
- Finfish and other fishery products accounted for 86% of total U.S. landings in 2011 or 8.5 billion pounds.
- Walleye pollock and menhaden contributed 33% and 22%, respectively, to U.S. finfish landings.
- Shrimp and blue crab contributed 23% and 15%, respectively, to shellfish landings.
- Walleye pollock had the largest one-year increase in landings over the 10 year time period, increasing 44% from 1.9 billion pounds in 2010 to 2.8 billion pounds in 2011.
- Pacific salmon had the largest one-year decrease in landings over the 10 year time period, decreasing 26% from 900 million pounds in 2005 to 664 million pounds in 2006.

### Prices

- Of the top ten key species or species groups, sea scallop (\$9.9), Pacific halibut (\$4.98), and sablefish (\$4.56) had the highest ex-vessel price per pound in 2011.
- Walleye pollock (\$0.13) and menhaden (\$0.08) had the lowest ex-vessel price per pound in 2011.
- Pacific halibut had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 56% from \$2.35 per pound in 2009 to \$3.67 in 2010.
- Shrimp had the largest decrease in ex-vessel price over the 10 year time period, decreasing 31% from \$1.79 per pound in 2008 to \$1.24 in 2009.

### Landings

In 2011, U.S. commercial fishermen landed 9.9 billion pounds of finfish and shellfish. Relative to 2002 levels, this was an 4.6% increase and a 20% increase relative to 2010 (8.2 billion pounds). Finfish landings totaled 8.5 billion pounds in 2011, a 3.2% increase from 8.2 billion pounds in 2002 and a 22% increase from 2010 (6.9 billion pounds).

**Total Landings by Region (2011)**  
(thousands of pounds)

Region	Total Landings	Region	Total Landings
United States	9,867,148	Mid-Atlantic	779,829
North Pacific	5,272,554	New England	622,355
Gulf of Mexico	1,765,899	South Atlantic	123,460
Pacific	1,175,506	Western Pacific	29,289

Almost 60% of total catch in 2011 was made up of the ten U.S. key species and species groups. Walleye pollock and menhaden had the highest landings totals in 2011 with 2.8 billion pounds and 1.9 billion pounds landed, respectively. These two species accounted for 47% of total U.S. landings in 2011.

**Total Landings by State (2011)**  
(thousands of pounds)

State	Total Landings	State	Total Landings
Alaska	5,272,554	West Florida	77,687
Louisiana	1,285,875	Rhode Island	77,236
Virginia	494,028	North Carolina	67,483
California	408,181	East Florida	31,215
Mississippi	278,080	Hawai'i	29,289
Oregon	274,525	New York	27,104
Maine	269,923	Alabama	26,145
Massachusetts	255,798	Georgia	12,646
Washington	210,672	New Hampshire	12,321
New Jersey	175,516	South Carolina	12,116
Texas	98,111	Connecticut	7,078
Maryland	78,197	Delaware	4,921

The greatest increases in landings between 2002 and 2011 occurred in American lobster (52%), Pacific salmon (39%), and blue crab (13%). During the same time period, decreases were seen in Pacific halibut (47%), walleye pollock (16%), and shrimp (10%). The largest increase in landings of key species or groups between 2010 and 2011 was experienced by walleye pollock (44%) and the largest decrease was experienced by Pacific halibut (24%).

Alaskan fishermen harvested the majority of the nation's total landings. Alaska contributed 56% to the U.S. total in 2011, landing 5.3 billion pounds of finfish and shellfish. Alaska also contributed most to the U.S. finfish total, landing 5.2 billion pounds or 61% of the U.S. finfish total. Walleye pollock comprised much of landings in Alaska (53%). More shellfish was landed in California (300 million pounds) and Louisiana (157 million pounds) than any other single state. The landings in these two states comprised 33% of all shellfish landed in the United States in 2011.

### Prices

Of the ten U.S. key species and species groups, sea scallop, Pacific halibut, and sablefish received the highest ex-vessel prices in 2011 at \$9.9 per pound, \$4.98 per pound, and \$4.56 per pound respectively.

Significant increases in price were observed for Pacific halibut, which increased 195% (105% in real terms) from 2002 to 2011, and experienced an increase of 35.7% (25.2% in real terms) from 2010 to 2011. Pacific salmon ex-vessel price experienced the next largest change between 2002 and 2011, with an increase of 182% (96% in real terms). The greatest change in price between 2010 and 2011 was experienced by Pacific halibut (35.7% increase a 25.2% increase in real terms), followed by sablefish with a 33.7% increase (a 23.2% increase in real terms).

Menhaden and walleye pollock had the lowest ex-vessel prices in 2011 at \$0.08 and \$0.13 per pound, respectively. However, landings of menhaden and walleye pollock were the largest among the U.S. key species and groups: 1.87 billion pounds of menhaden and 2.81 billion pounds of walleye pollock.

### Recreational Fisheries

In 2011, there were approximately 11 million recreational saltwater anglers across the U.S. who took 70 million saltwater fishing trips around the country. These anglers spent \$4.5 billion on fishing trips and \$22 billion on durable fishing-related equipment. These expenditures contributed \$70 billion in sales impacts to the U.S. economy, generated \$32 billion in value added impacts, and supported over 455,000 job impacts. Of the U.S. key recreational species or species groups, seatrout (51 million fish), and Atlantic croaker and spot (31 million fish) were the most often caught by recreational saltwater anglers in 2011.

#### Key United States Recreational Species

- Atlantic croaker and spot
- Seatrout
- Little tunny and Atlantic bonito
- Pacific halibut
- Sharks
- Striped bass
- Summer flounder
- Large Atlantic tuna

#### Expenditures and Economic Impacts

Economic impacts from recreational fishing activities (impacts from fishing trips and durable equipment combined) supported over 455,000 full- and part-time jobs across the U.S. in 2011. Sales impacts from recreational angling trips and durable expenditures totaled \$70 billion and value added impacts totaled \$32 billion. Durable equipment impacts contributed most to these totals, accounting for 81% of employment impacts, 85% of total sales impacts, and 83% of value added impacts. Of the three fishing trip modes, private boat-based fishing trips contributed most to the number of jobs supported by recreational angling with 7.4% of employment impacts. For-hire sales (\$2.5 billion) and value added impacts (\$1.4 billion) were approximately half the magnitude of impacts generated by either private boat (\$4.6 billion, \$2.3 billion) or shore-based trips (\$3.5 billion, \$1.8 billion).

**Recreational Economic Impacts Trends for the United States**  
 (thousands of dollars and trips)

	2008	2009	2010	2011
Jobs	384,707	327,124	326,188	454,542
Income	NA	14,574,464	14,570,210	20,518,517
Sales	58,877,647	49,811,961	49,832,341	70,315,216
Value Added	27,350,783	23,196,423	23,170,932	32,471,761
Total Trips <sup>1</sup>	85,548	74,559	72,464	70,194

U.S. anglers spent a total of \$4.5 billion on expenditures related for fishing trips in 2011. Of this total, expenditures for private boat-based fishing trips contributed the most (\$2 billion), followed by shore-based fishing trips (\$1.5 billion), and for-hire-based fishing trips (\$1 billion). Expenditures on fishing-related equipment totaled over \$22 billion in 2011. Anglers spent more on boat expenses (\$11 billion) than any other durable good. Other major expenditures include vehicle expenses (\$4.1 billion), fishing tackle (\$3.8 billion) and second home expenses (\$2.1 billion).

**Jobs supported by the U.S. Recreational Fishing Industry**  
 (2011)

State	Jobs	State	Jobs
West Florida	47,047	Washington	4,939
East Florida	28,701	South Carolina	3,254
Louisiana	17,764	Oregon	3,147
North Carolina	17,737	New York	2,972
Texas	15,150	Hawai'i	2,948
New Jersey	9,965	Georgia	2,880
Alabama	8,177	Rhode Island	1,273
California	7,703	Mississippi	1,181
Virginia	7,237	Connecticut	909
Alaska	6,291	Maine	843
Maryland	5,745	Delaware	795
Massachusetts	5,322	New Hampshire	376

The greatest employment impacts from expenditures on recreational angling were generated in East Florida with 29,000 jobs, followed by Louisiana(18,000 jobs), North Carolina(18,000 jobs), and Texas(15,000 jobs). The lowest number of jobs were supported in New Hampshire (376 jobs). The highest sales impacts from expenditures on recreational angling were also generated in East Florida with \$3.3 billion in sales, followed by Louisiana(\$2 billion), Texas(\$1.9 billion, and New Jersey(\$1.9 billion). The lowest sales were generated in 41 million (\$41 million).

**Total Sales generated by the U.S. Recreational Fishing Industry**  
 (2011)

(thousands of dollars)

State	Sales	State	Sales
West Florida	4,881,831	Washington	514,088
East Florida	3,255,774	Oregon	370,032
North Carolina	1,961,144	New York	369,382
Texas	1,853,361	Georgia	348,742
New Jersey	1,697,115	Hawai'i	309,923
Louisiana	1,602,913	South Carolina	282,049
California	1,031,068	Rhode Island	157,111
Virginia	833,508	Mississippi	145,769
Alabama	797,280	Connecticut	128,921
Maryland	783,833	Delaware	120,877
Massachusetts	726,164	Maine	77,071
Alaska	557,958	New Hampshire	41,005

*Participation<sup>2</sup>*

Nationwide, there were 11 million recreational saltwater anglers who fished in their home states in 2011. Approximately 9.2 million of these anglers were residents of a U.S. coastal county and 1.4 million anglers were residents of a non-coastal county. Between 2002 and 2011, the total number of U.S. anglers fishing in their home states increased 6.3%. However, the number of anglers decreased 4.1% between 2010 and 2011. The number of coastal county anglers increased 6.7% from 2002 to 2011 and decreased 4% from 2010 to 2011. The number of non-coastal county anglers increased 4.1% between 2002 and 2011 and from 2010 to 2011, there was a 4.9% decrease.

*Fishing Trips<sup>3</sup>*

The total number of fishing trips taken in the U.S. decreased 2.7% from 2002 to 2011. Relative to 2010, total fishing trips taken in the U.S. decreased 3% with largest increase occurring in the for-hire mode (22%)

*Harvest and Release*

Among the ten key U.S. recreational species or species groups, seatrout, Atlantic croaker and spot, summer flounder, and striped bass were the most commonly caught by anglers in 2011. These species or groups were caught in large numbers relative to the other key species or groups: seatrout (51 million fish), Atlantic croaker and spot (31 million fish), summer flounder (22 million fish), and striped bass (8.4 million fish). Anglers fishing in the Mid-Atlantic and New England caught most of the Atlantic croaker, summer flounder, and striped bass in 2011, while most seatrout were caught in the Gulf of Mexico and the South Atlantic.

<sup>1</sup>The number of trips is in thousands and excludes Alaska and Texas.

<sup>2</sup>Participation estimates do not include Alaska and Texas. Hawai'i is included for 2003-2011; Numbers include the Caribbean.

<sup>3</sup>Effort numbers do not include Alaska and Texas. They include Hawai'i only for 2003-2010. California numbers were estimated differently from 2004-2011.

### Recreational Fishing Facts

#### Participation

- An average of 12 million anglers fished in United States annually from 2002 to 2011.
- In 2011, coastal county residents made up 87% of total anglers. These anglers averaged 87% of total anglers annually over the 10 year time period.
- The largest annual increase in the number of coastal anglers during the 10 year time period was between 2002 and 2003, increasing 21%, from 8.6 million anglers to 10 million anglers. The largest one-year decrease during the same period for coastal anglers occurred between 2007 and 2008, decreasing 13%, from 12 million anglers to 11 million anglers.

#### Fishing trips

- In the United States, an average of 80 million fishing trips were taken annually from 2002 to 2011.
- Private or rental boat and shore-based fishing trips accounted for 35 million and 32 million fishing trips, respectively in 2011. Together, these made up 95.5% of the fishing trips taken in that year.
- The largest increase in number of total trips taken annually over the 10 year time period occurred between 2002 and 2003, increasing 17%, from 72 million trips to 84 million trips.
- The largest one-year decrease in total trips taken during this period in total trips taken occurred between 2008 and 2009, decreasing 13%, from 86 million trips to 75 million trips.

#### Harvest and release

- Seatrout was the most commonly caught key species or species group, averaging 45 million fish caught over the 10 year time period. Of these, 61% were released rather than harvested.
- Of the eight commonly caught key species or species groups, six were released more often than harvested over this time period. The species or species group that was most commonly released was sharks (96% released).
- Large Atlantic tuna (88% harvested), followed by Pacific halibut (57% harvested), and Atlantic croaker and spot (50% harvested) were key species or groups that experienced the greatest proportion of harvests rather than releases.

In the North Pacific Region, salmon (Chinook, chum, coho, pink, and sockeye) and Pacific halibut were the most commonly caught species or group in 2011 with 963,000 fish and 705,000 fish caught, respectively. Bigeye and mackerel (662,000 fish) comprised 44% of fish caught by anglers in the Western Pacific in 2011.

Recreational catch of striped bass experienced a 47% decrease between 2002 and 2011, the largest change during this 10 year time period. There were 2.7 million sharks caught in 2011. Other key species or groups with large changes in recreational catch include: seatrout (40% increase), summer flounder (29% increase), little tunny and Atlantic bonito (27% decrease), and Pacific halibut (21% increase).

From 2010 to 2011, decreases occurred in the recreational catch of sharks, summer flounder, and large Atlantic tuna. Of these, the largest decreases occurred in sharks (36%), large Atlantic tuna (24%), and summer flounder (9%). The largest increase observed for this time period was for seatrout, which experienced a 25% increase.

### Marine Economy<sup>1</sup>

In 2010, there were 7.4 billion establishments in the U.S., including marine and non-marine related establishments. These establishments employed almost 112 million full- and part-time employees and had a total annual payroll of \$4.9 trillion. From 2002 to 2010, the number of establishments increased 2.7%, employee numbers decreased 0.38%, and total annual payroll increased 25% (a 5.7% decrease in real terms) nationwide. More modest changes were seen from 2009 to 2010: 0.5% decrease, 2.2% decrease, and 1.8% increase (a 2.3% decrease in real terms), respectively.

The nation's gross domestic product was \$14.4 trillion in 2010, a 36% increase (a 2.6% increase in real terms) relative to 2002 levels (\$11 trillion) and a 4.2% increase (a 0% increase in real terms) relative to 2009 levels (\$13.8 trillion). Employee compensation in 2002 was \$6.1 trillion, a 30% increase (a 1.9% decrease in real terms).

For this report, the marine economy, a subset of the national economy, is comprised of two industry sectors: 1) seafood sales and processing (employer establishments and nonemployer firms) and 2) transport, support, and marine operations (employer establishments). These sectors are comprised of several different marine-related industries. The following sections discuss the contribution of these industries to the national marine economy in terms of the number of establishments or firms, employees, and total annual payroll or receipts.

#### Seafood Sales and Processing

In 2010, there were 1,617 nonemployer firms engaged in seafood product preparation and packaging, a 79% increase from 2002 levels. Annual receipts increased 88% (42% increase in real terms) from \$56 million (2002) to \$105 million (2010). More of these firms were located in Florida (202 firms) than any other state.

In contrast to nonemployer firms, the number of employer establishments in seafood product and packaging decreased 15% from 754 in 2002 to 638 in 2010. These firms employed approximately 32,000 full- and part-time employees in 2010 and had a total annual payroll of \$1.1 billion. Relative to 2002 levels, this was an 18% decrease in workers but a 2.2% increase (a 23% decrease in real terms) in annual payroll. More of these establishments were located in Alaska (119 establishments) and Washington (93 establishments) than any other states.

There were over 2,000 employer establishments involved in seafood wholesale activities in 2010. Most of these establishments

<sup>1</sup>Information for 2010 is reported in this section; 2011 data were not available for this report.

were in California (314 firms), New York (263 firms), and Florida (229 firms) Establishments in the seafood wholesaling sector employed 19,386 workers and had an annual payroll of \$799 million. From 2002 to 2010, the number of establishments in the seafood wholesale sector decreased 24%, the number of employees decreased 27%, and the annual payroll decreased 11% (a 33% decrease in real terms).

Nonemployer firms and employer establishments engaged in seafood retail activities saw varying trends from 2002 to 2010. There was a 14% increase in firms (2,513 in 2010) and a 11% decrease in establishments (1,982 in 2010). Annual receipts for nonemployer firms totaled \$200 million in 2010, a 0.1% decrease (25% decrease in real terms) relative to 2002 levels.

Annual payroll for employer establishments totaled over \$219 million, a 31% increase (1.7% decrease in real terms) relative to 2002 levels. Approximately 9,857 full- and part-time workers were employed by the 1,982 establishments in 2010, a 0.88% increase and a 11% decrease, respectively from 2002. The employer establishments for retail seafood sales were primarily

located in New York (394 firms), California (158 firms), and Florida (145 firms). Most non-employer firms in the retail sector were located in Florida (331), New York (247), and California (210).

#### *Transport, Support, and Marine Operations*

In the U.S. transport, support, and marine operations industry sector, industries involved in marina activities had the highest number of establishments. In 2010, there were over 3,900 marina industries that employed 27,000 full- and part-time workers. Compared to 2002 levels, this was a 2.1% decrease in establishment numbers and a 16% increase in number of employees.

Annual payroll for this industry was \$927 million in 2010, a 37% increase (3.3% increase in real terms) over 2002 levels. Most of these marina industries were located in California (236235 industries), Florida (159025), and New York (98499).

**2011 Economic Impacts of the United States Seafood Industry (thousands of dollars)**

	With Imports			Without Imports		
	Jobs	Sales	Value Added	Jobs	Sales	Value Added
<b>Total Impacts</b>	1,233,204	129,386,335	55,321,482	786,505	52,870,191	27,489,114
Commercial Harvesters	186,726	14,148,340	7,351,409	186,726	14,148,340	7,351,409
Seafood Processors & Dealers	198,001	27,231,326	11,946,661	59,752	8,309,304	3,645,377
Importers	176,037	48,424,097	14,761,785	0	0	0
Seafood Wholesalers & Distributors	54,273	7,478,706	3,516,426	27,711	3,818,492	1,795,423
Retail	618,166	32,103,866	17,745,201	512,317	26,594,055	14,696,905

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

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Total revenue</b>	3,164,209	3,346,066	3,769,942	3,952,692	4,041,780	4,203,688	4,394,152	3,927,630	4,511,633	5,338,063
Finfish & other	1,374,489	1,518,330	1,777,802	1,860,060	1,950,757	2,068,233	2,254,846	1,887,456	2,183,578	2,590,197
Shellfish	1,789,720	1,827,736	1,992,140	2,092,632	2,091,023	2,135,455	2,139,306	2,040,174	2,328,055	2,747,866
American lobster	293,894	283,516	374,306	415,415	395,150	367,500	326,814	310,370	399,476	423,354
Blue crab	146,974	153,685	145,905	140,818	126,043	148,866	160,682	163,159	205,683	181,842
Menhaden	81,607	71,988	75,045	62,520	69,683	92,725	90,996	99,092	107,130	143,679
Pacific halibut	136,789	172,846	176,893	177,599	202,163	227,348	217,726	140,613	207,233	213,518
Pacific salmon	156,194	198,946	302,775	330,816	310,865	381,589	395,253	369,744	554,798	618,300
Sablefish	77,637	102,983	99,153	101,759	109,026	106,504	121,869	123,231	137,573	188,217
Sea scallop	202,092	229,097	320,039	432,514	384,758	386,044	370,057	376,331	455,694	585,090
Shrimp	523,882	441,622	446,043	412,718	454,610	429,993	444,522	379,152	416,976	535,509
Tunas	85,473	86,818	89,952	86,358	86,760	93,875	106,867	96,072	108,257	136,004
Walleye pollock	203,263	203,018	271,612	306,906	329,879	297,460	323,212	270,595	282,399	362,592

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

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Total landings</b>	9,436,477	9,505,337	9,688,745	9,712,427	9,484,055	9,309,281	8,357,614	8,060,769	8,248,510	9,867,148
Finfish & other	8,232,370	8,367,711	8,516,634	8,630,877	8,303,972	8,227,911	7,290,705	6,792,319	6,948,622	8,499,132
Shellfish	1,204,107	1,137,626	1,172,111	1,081,550	1,180,083	1,081,370	1,066,909	1,268,450	1,299,888	1,368,016
American lobster	83,087	71,683	90,073	87,809	92,609	80,842	88,106	100,507	116,248	126,264
Blue crab	175,574	170,890	174,561	159,242	166,133	156,599	162,192	176,184	199,334	199,149
Menhaden	1,755,398	1,590,510	1,495,240	1,243,807	1,304,250	1,484,230	1,344,468	1,570,733	1,473,329	1,874,995
Pacific halibut	80,977	78,862	79,181	76,264	71,897	69,967	67,000	59,812	56,460	42,877
Pacific salmon	561,489	669,998	738,746	899,759	663,567	886,054	659,196	705,063	787,712	780,066
Sablefish	40,734	47,998	52,851	51,296	46,842	43,884	43,314	42,826	40,318	41,284
Sea scallop	52,672	55,968	64,108	56,626	59,013	58,450	53,385	58,003	57,529	59,112
Shrimp	345,249	324,170	316,566	264,163	337,012	273,636	248,609	305,701	262,295	310,570
Tunas	49,632	61,762	56,323	44,252	49,923	50,642	47,878	49,062	48,001	49,708
Walleye pollock	3,333,647	3,361,261	3,353,236	3,410,065	3,400,810	3,066,600	2,276,144	1,866,171	1,947,578	2,810,787

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

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
American lobster	3.54	3.96	4.16	4.73	4.27	4.55	3.71	3.09	3.44	3.35
Blue crab	0.84	0.90	0.84	0.88	0.76	0.95	0.99	0.93	1.03	0.91
Menhaden	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.06	0.07	0.08
Pacific halibut	1.69	2.19	2.23	2.33	2.81	3.25	3.25	2.35	3.67	4.98
Pacific salmon	0.28	0.30	0.41	0.37	0.47	0.43	0.60	0.52	0.70	0.79
Sablefish	1.91	2.15	1.88	1.98	2.33	2.43	2.81	2.88	3.41	4.56
Sea scallop	3.84	4.09	4.99	7.64	6.52	6.60	6.93	6.49	7.92	9.90
Shrimp	1.52	1.36	1.41	1.56	1.35	1.57	1.79	1.24	1.59	1.72
Tunas	1.72	1.41	1.60	1.95	1.74	1.85	2.23	1.96	2.26	2.74
Walleye pollock	0.06	0.06	0.08	0.09	0.10	0.10	0.14	0.15	0.15	0.13

**2011 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	22,806	2,537,215	804,012	1,377,196
Private Boat	33,720	4,589,856	1,356,127	2,334,562
Shore	28,740	3,512,042	1,074,793	1,826,550
Total Durable Equipment Impacts	369,277	59,676,104	17,283,585	26,933,452
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>454,542</b>	<b>70,315,216</b>	<b>20,518,517</b>	<b>32,471,761</b>

**2011 Angler Trip & Durable Expenditures (thousands of dollars)<sup>1</sup>**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
For-Hire	NA	1,011,001	Fishing Tackle	3,829,739
Private Boat	NA	2,027,441	Other Equipment	1,406,941
Shore	NA	1,481,376	Boat Expenses	10,865,232
<i>Total Trip Expenditures</i>	NA	4,519,818	Vehicle Expenses	4,050,431
			Second Home Expenses	2,111,150
			<i>Total Durable Equipment Expenditures</i>	22,263,493
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>26,783,311</b>

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

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal	8,608	10,434	10,199	11,330	11,644	12,389	10,725	9,408	9,557	9,183
Non-Coastal	1,372	1,562	1,579	1,492	1,685	1,616	1,591	1,747	1,502	1,428
<b>Total Anglers</b>	<b>9,981</b>	<b>11,996</b>	<b>11,779</b>	<b>12,822</b>	<b>13,329</b>	<b>14,005</b>	<b>12,316</b>	<b>11,155</b>	<b>11,059</b>	<b>10,611</b>

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

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
For-Hire	3,197	3,244	3,424	3,524	3,734	4,173	3,416	3,281	2,597	3,179
Private	38,525	45,013	44,007	43,249	42,719	46,465	44,912	37,647	37,760	35,321
Shore	30,437	36,199	38,015	37,345	38,694	37,021	37,220	33,631	32,107	31,694
<b>Total Trips</b>	<b>72,159</b>	<b>84,456</b>	<b>85,446</b>	<b>84,118</b>	<b>85,147</b>	<b>87,659</b>	<b>85,548</b>	<b>74,559</b>	<b>72,464</b>	<b>70,194</b>

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

		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Drum (Atlantic croaker and spot)	H	17,836	20,879	19,793	20,352	22,936	26,567	24,020	15,762	13,355	13,319
	R	16,436	18,203	17,821	23,760	19,371	21,365	24,974	20,374	15,981	18,092
Drum (seatrouts)	H	13,943	15,228	16,947	16,095	18,903	17,559	21,081	20,187	16,743	22,234
	R	22,458	25,552	27,214	30,632	30,351	28,970	32,349	25,807	23,936	28,649
Little tunny & Atlantic bonito <sup>4</sup>	H	321	254	405	179	313	293	204	231	190	281
	R	1,020	865	1,099	464	868	1,221	725	807	597	703
Pacific halibut	H	351	403	483	500	463	585	516	440	398	394
	R	233	290	369	380	353	438	359	321	304	311
Rockfishes & scorpionfishes	H	2,856	3,742	2,593	3,617	2,677	2,454	2,068	2,199	NA	NA
	R	1,065	1,796	977	1,347	895	691	636	836	NA	NA
Salmon	H	1,321	1,626	1,569	1,481	873	1,286	722	1,574	NA	NA
	R	692	881	1,010	844	513	710	375	659	NA	NA
Sharks <sup>5</sup>	H	156	168	148	203	131	144	108	126	157	104
	R	2,076	2,796	3,052	3,983	3,507	3,954	4,134	3,980	4,012	2,574
Striped bass	H	1,891	2,579	2,617	2,488	2,740	2,438	2,341	1,990	1,973	2,249
	R	13,971	14,996	17,480	18,227	23,415	16,218	12,695	8,120	6,355	6,174
Summer flounder	H	3,280	4,574	4,389	4,107	4,034	3,105	2,363	1,829	1,509	1,844
	R	13,417	15,974	16,055	21,869	17,511	17,627	20,547	22,297	22,230	19,723
Tunas (large Atlantic species) <sup>6</sup>	H	428	889	772	667	566	729	799	530	594	421
	R	28	112	132	109	135	95	87	53	51	69

<sup>1</sup>All anglers reported in this table are U.S. residents; NA = not applicable<sup>2</sup>Information was included for all states but Alaska and Texas. Most information was provided by the Marine Recreational Information Program (MRIP). Pacific data were provided by the Pacific states and Hawaii data were not included from 2000 to 2002.<sup>3</sup>This table excludes all Texas data and Hawaii data for 2002.<sup>4</sup>This species may not be equivalent to species with similar names listed in the commercial tables.<sup>5</sup>Sharks include species within the requiem shark family, blacktip sharks, Atlantic sharpnose sharks, and unidentified sharks.<sup>6</sup>Includes all tunas in the thunnus family.

## United States's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2002	7,200,770	112,400,654	3,943,180	6,099,602	10,572,388	1
2010	7,396,628	111,970,095	4,940,983	7,952,204	14,416,601	1
% change	2.72%	-0.383%	25.3%	30.4%	36.4%	--

## Seafood Sales &amp; Processing - Nonemployer Firms (thousands of dollars)

		2002	2003	2004	2005	2006	2007	2008	2009	2010
Seafood product prep. & packaging	Firms	903	1,038	1,110	1,080	1,142	1,303	1,308	1,383	1,617
	Receipts	55,750	70,071	81,871	78,745	80,066	88,230	89,670	92,358	104,990
Seafood Sales, retail	Firms	2,210	2,346	2,260	2,098	2,089	2,610	2,522	2,407	2,513
	Receipts	199,937	210,231	210,450	203,951	211,186	231,776	233,002	198,495	199,810

## Seafood Sales &amp; Processing - Employer Establishments (thousands of dollars)

		2002	2003	2004	2005	2006	2007	2008	2009	2010
Seafood product prep. & packaging	Establishments	754	764	734	717	670	685	663	645	638
	Employees	38,663	39,580	38,102	37,684	35,894	33,169	33,323	30,894	31,789
	Payroll	1,092,500	1,177,582	1,151,780	1,180,396	1,205,890	1,196,086	1,161,637	1,091,727	1,116,305
Seafood sales, wholesale	Establishments	2,883	2,456	2,330	2,314	2,222	2,438	2,063	2,099	2,183
	Employees	26,719	23,091	22,501	22,666	22,013	24,232	20,116	19,290	19,386
	Payroll	895,718	743,479	771,749	781,459	826,720	924,654	782,178	758,332	798,794
Seafood sales, retail	Establishments	2,238	2,125	2,151	2,155	2,115	2,094	2,044	1,967	1,982
	Employees	9,771	10,346	10,714	10,381	10,545	10,380	9,732	9,439	9,857
	Payroll	167,634	186,087	192,187	194,602	200,971	209,404	205,423	211,264	219,045

## Transport, Support, &amp; Marine Operations - Employer Establishments (thousands of dollars)

		2002	2003	2004	2005	2006	2007	2008	2009	2010
Coastal & Great Lakes freight transportation	Establishments	520	606	579	610	579	573	513	513	547
	Employees	20,149	22,449	21,928	21,025	22,172	22,568	21,019	20,919	17,528
	Payroll	1,096,771	1,183,071	1,179,549	1,232,342	1,376,033	1,552,467	1,694,613	1,470,159	1,288,001
Deep sea freight transportation	Establishments	471	472	435	465	456	427	365	376	372
	Employees	12,916	12,175	11,314	11,357	11,473	11,308	10,231	11,180	10,288
	Payroll	784,149	734,781	735,804	801,863	825,752	855,683	852,063	863,363	867,797
Marinas	Establishments	4,021	4,150	4,092	4,143	4,025	4,085	3,972	3,891	3,937
	Employees	23,047	27,928	28,100	27,511	28,339	28,788	28,686	26,643	26,657
	Payroll	675,529	773,538	814,821	839,848	894,097	945,355	954,032	905,488	927,499
Marine cargo handling	Establishments	595	542	551	549	540	552	532	541	507
	Employees	50,428	50,644	58,618	59,670	61,905	62,941	63,736	56,386	57,275
	Payroll	2,425,187	2,422,537	2,899,703	3,034,672	3,261,953	3,428,126	3,272,723	2,776,791	3,026,861
Navigational services to shipping	Establishments	828	782	804	803	802	830	868	846	847
	Employees	11,224	11,795	11,881	10,819	12,043	12,997	13,419	12,689	13,529
	Payroll	509,953	629,541	591,510	584,689	699,375	756,552	847,938	826,384	937,980
Port & harbor operations	Establishments	212	223	234	244	229	223	268	258	287
	Employees	6,304	6,413	6,888	7,453	7,002	6,573	5,608	5,100	4,844
	Payroll	245,979	279,970	300,692	319,338	323,554	318,608	282,671	250,358	290,467
Ship & boat building	Establishments	1,736	1,739	1,793	1,799	1,764	1,771	1,782	1,615	1,540
	Employees	131,292	133,395	137,633	141,620	142,057	148,864	157,512	137,759	127,691
	Payroll	5,111,708	5,119,596	5,499,783	5,654,818	5,877,830	6,405,570	7,269,306	6,674,187	6,529,523

<sup>1</sup>The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.