

# Fisheries Economics of the United States 2010

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-120  
October 2011







---

# Fisheries Economics of the United States, 2010

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-120**  
**October 2011**



U.S. Department of Commerce  
Rebecca Blank, Acting Secretary of Commerce

National Ocean and Atmospheric Administration  
Jane Lubchenco, Ph.D., Administrator of NOAA

National Marine Fisheries Service  
Eric Schwaab, Assistant Administrator for Fisheries

---

**Suggested Citation:**

National Marine Fisheries Service. 2011. Fisheries Economics of the United States, 2010. U.S. Dept. Commerce, NOAA Tech. Memo. NMFS-F/SPO-118, 175p. Available at: <https://www.st.nmfs.noaa.gov/st5/publication/index.html>.

**A copy of this report may be obtained from:**

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

**Or online at:**

<https://www.st.nmfs.noaa.gov/st5/publication/index.html>

Front cover photo: Honolulu (photo credit: J.Hospital)

Inside cover photo: Honolulu Fish Auction (photo credit: J.Hospital)



## Contents

<b>Preface</b>	<b>vi</b>
<b>In Memory</b>	<b>viii</b>
<b>National Overview</b>	<b>1</b>
United States Summary . . . . .	2
United States Tables . . . . .	12
<b>North Pacific</b>	<b>15</b>
North Pacific Summary . . . . .	16
Alaska Tables . . . . .	20
<b>Pacific</b>	<b>23</b>
Pacific Summary . . . . .	24
Pacific Region Tables . . . . .	29
California Tables . . . . .	31
Oregon Tables . . . . .	34
Washington Tables . . . . .	37
<b>Western Pacific</b>	<b>41</b>
Western Pacific Summary . . . . .	42
Hawai'i Tables . . . . .	46
<b>New England</b>	<b>49</b>
New England Summary . . . . .	50
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>73</b>
Mid-Atlantic Summary . . . . .	74
Mid-Atlantic Region Tables . . . . .	78
Delaware Tables . . . . .	80
Maryland Tables . . . . .	83

---

New Jersey Tables . . . . .	86
New York Tables . . . . .	89
Virginia Tables . . . . .	92
<b>South Atlantic</b>	<b>95</b>
South Atlantic Summary . . . . .	96
South Atlantic Region Tables . . . . .	100
East Florida Tables . . . . .	102
Georgia Tables . . . . .	105
North Carolina Tables . . . . .	108
South Carolina Tables . . . . .	111
<b>Gulf of Mexico</b>	<b>115</b>
Gulf of Mexico Summary . . . . .	116
Gulf of Mexico Region Tables . . . . .	121
Alabama Tables . . . . .	123
West Florida Tables . . . . .	126
Louisiana Tables . . . . .	129
Mississippi Tables . . . . .	132
Texas Tables . . . . .	135
<b>Data Sources</b>	<b>139</b>
<b>Publications</b>	<b>143</b>
<b>Resources</b>	<b>161</b>
<b>Glossary</b>	<b>167</b>

---

# Preface

## **Fisheries Economics of the U.S., 2010**

*Fisheries Economics of the U.S., 2010* is the fifth volume in this 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. The 2001 to 2010 time period is covered in this report and descriptive statistics are provided 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. Erin Steiner served as the editor and author for this report. Primary analysts and collaborators included Sabrina Lovell, Alan Lowther, and Lauren Dolinger Few. Other analysts and contributors included Rita Curtis, Michael Lewis, Melissa Yenko, Kathy Cuff, Avi Litwack, and Shelley Arenas.

---

Many NOAA Fisheries staff in the regional Fisheries Science Centers and Regional Offices provided expertise: Cindy Thomson, Mark Plummer, Jim Waters, Ron Felthoven, Sarah Malloy, Dale Squires, Matthew McPherson, Todd Lee, Terry Hiatt, Jennifer Mondragon, Karen Greene, and Steve Freese. Other colleagues who provided information and expertise included: Gretchen Jennings (Alaska Department of Fish and Game), Mark Fisher and Jeremy Leitz (Texas Department of Parks and Wildlife), and Elena Besedin and Dominick Tribone (Abt Associates). Jim Kirkley (Virginia Institute of Marine Science) created the input-output model for generating seafood impacts and Sabrina Lovell provided the estimates of recreational impacts and expenditures.

Address all comments and questions to:

Economics and Sociocultural Analysis Division  
Office of Science and Technology  
NOAA Fisheries (NMFS)  
1315 East-West Highway, 12th floor  
Silver Spring, MD 20910-3282  
Phone: 301-713-2328 / Fax: 301-713-4137

Slidell, LA (photo credit: A. Miller, Gulf States Marine Fisheries Commission)



---

## 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.

---

Slidell, LA (photo credit: A. Miller, Gulf States Marine Fisheries Commission)

# 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 47 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 179 stocks or stock complexes and the overfishing status of 192 stocks or stock complexes is known. Currently, 43 stocks or stock complexes are categorized as overfished and 39 are categorized as subject to overfishing<sup>2</sup>.

Less is known about the 302 minor stocks or stock complexes. The overfished status of 28 of these stocks or stock complexes is known and five of these are currently considered overfished. The overfishing status of 61 of the 302 minor stocks or stock complexes is known and two 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) - 2011 Quarter 2 Update through June 30, 2011. 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/docs/2009\\_International\\_agreements.pdf](http://www.nmfs.noaa.gov/ia/docs/2009_International_agreements.pdf)

## 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 2010, there were 37 vessels flying the national flags of 15 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 69 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 82 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	39
Marine Mammals: Whales	12
Marine Mammals: Dolphins	2
Marine Mammals: Porpoise	1
Marine Mammals: Seals	5
Marine Mammals: Sea Lions	2
Sea Turtles	8
Marine Invertebrates	4
Marine Plants	1
<b>Total</b>	<b>69</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 92 candidate species for listing (82 are coral species) and 9 species proposed for listing.

In 1970, the Eastern North Pacific gray whale was listed under

<sup>1</sup>An additional 43 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)

<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>.

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. 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

quotas<sup>1</sup>; community development quota programs (CDQs); Pacific Coast groundfish trawl rationalization program is the nation's newest catch share program.

#### Existing Catch Shares Programs (2009)

Region	Program	First Year	Ex-vessel Value (\$ millions)
Mid-Atlantic	Surfclam and ocean quahog IFQ	1990	52.9
South Atlantic	Wreckfish IFQ	1991	ND <sup>3</sup>
North Pacific	Western Alaska CDQ	1992	46.9
North Pacific	Pacific halibut and sablefish IFQ	1995	209.9
Pacific	Pacific whiting catcher/processor cooperative	1997	4.1
North Pacific	Bering Sea (BS) pollock cooperative	1999	291.3
Pacific	Sablefish permit stacking program	2001	11.5
New England	George's Bank cod hook gear sector <sup>4</sup>	2004	ND <sup>2</sup>
North Pacific	Bering Sea king and Tanner crab; IFQ and cooperative	2005	148.5
New England	George's Bank cod fixed gear sector <sup>4</sup>	2007	ND <sup>2</sup>
Gulf of Mexico	Red snapper IFQ	2007	8
North Pacific	Central Gulf of Alaska rockfish pilot sector program	2007	5.9
North Pacific	BS groundfish (non-pollock) trawl catcher/ processor cooperative	2008	96
Mid-Atlantic	Golden Tilefish	2009	4.2
Gulf of Mexico	Grouper and tilefish	2010	--
New England	Multispecies sector <sup>5</sup>	2010	--
Pacific	Pacific Coast Groundfish Trawl Rationalization	2011	--

In 2010, the NOAA catch shares policy<sup>6</sup> was released to encourage 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. The

With many catch share programs, the individually-assigned harvest privileges can be transferred (sold or leased) to those who can use them more beneficially. In contrast, the sector allocation program currently in place for the Northeast multispecies fishery does not assign harvest privileges that can be sold or leased by individual fishermen. Instead, a group of vessel permit holders voluntarily agree to form a sector and request exemptions from certain fishing restrictions in exchange for the opportunity to catch a portion of the total catch allocated to the fishing industry. A sector could, however, assign shares of its allocation to individual fishermen and allow transfers among its members or potentially to another sector.

Nationwide, there are fifteen catch share programs currently in operation in six different regions. In 2009, twelve programs were in existence. The total landings revenue of the fisheries for which information was available was \$879 million in 2009 amounting to 19% of the total landings revenue for all U.S. commercial fisheries.

#### 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>7</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.

Marine Stewardship Council (MSC) has one of the most recognizable ecolabeling programs in the world. There are

<sup>3</sup>ND = these data are confidential thus not disclosable

<sup>4</sup>The George's Bank cod hook gear and cod fixed gear sectors were merged into one sector within the Multispecies sector program in 2010.

<sup>5</sup>Amendment 16 to Northeast Multispecies Fishery Management Plan expanded the number of sectors from 2 to 17.

<sup>6</sup>[http://www.nmfs.noaa.gov/sfa/domes\\_fish/catchshare/index.htm](http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm)

<sup>7</sup>This total excludes three buyback programs associated with Northwest Pacific salmon disasters in 1994, 1995, and 1998 because data were not available.

currently 131 fisheries worldwide that meet MSC sustainability standards<sup>1</sup>, 17 of which are U.S. fisheries.

**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
North Pacific	Gulf of Alaska Pacific cod	Jan 2010
Pacific	Oregon dungeness crab	Dec 2010
North Pacific	Annette Islands Reserve salmon	June 2011

**Commercial Fisheries**

Commercial fishermen in the U.S. harvested 8.2 billion pounds of finfish and shellfish in 2010, earning \$4.5 billion for their catch. Pacific salmon (\$555 million) followed by sea scallop (\$455 million), shrimp (\$417 million), and American lobster (\$397 million) contributed most to total revenue in the U.S. In terms of pounds landed, walleye pollock (1.9 billion pounds), menhaden (1.5 billion), and Pacific salmon (788 million) comprised over half of total pounds landed in 2010.

**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 (757 million pounds) and earned \$506 million for their catch in 2010. Tuna was caught in large numbers in Hawai'i (15 million pounds) and generated \$48 million in landings revenue.

On the East Coast, Maine fishermen contributed most to the total landings of American lobster (95 million pounds) and earned \$313 million for their catch in 2010. In Massachusetts, sea scallop was a major contributor to total revenue, earning \$252 million for 31 million pounds landed. More blue crab was caught in Maryland (63 million pounds) than any other state, earning fishermen in this state over \$75 million. Louisiana landed over half of the menhaden in 2010 with fisherman landing 862 million pounds and generating \$58 million in landings revenue.

The highest ex-vessel price per pound in 2010 was for Eastern oyster, which received \$38.25 per pound in Massachusetts, \$7.69 per pound in Maryland, and \$5.75 per pound in Delaware, with price differences largely attributable to difference in product form. Other key species or groups with high ex-vessel prices included: lobsters (\$12.37 per pound in Hawai'i), bloodworms (\$11.03 per pound in Maine) and sea scallop (\$8.84 per pound in New Hampshire).

In the Gulf of Mexico, shrimp is a highly valued species. Fishermen in Texas earned \$174 million for their catch (77 million pounds). Although, less shrimp was landed in Louisiana (74 million pounds) the total landings revenue was less (\$108 million). The ex-vessel price in Texas (\$2.26) was greater than that in Louisiana (\$1.46).

*Economic Impacts<sup>2</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 2010, this industry supported approximately 1.2 million full- and part-time jobs and generated \$133 billion in sales impacts, \$36 billion in income impacts, and \$55 billion in value added impacts.

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

	2007	2008	2009	2010
Jobs	1,141,921	1,144,353	1,029,542	1,196,683
Income	34,258,018	34,544,909	31,556,643	36,269,724
Sales	126,261,815	126,175,684	116,224,548	133,135,986
Value Added	52,423,024	52,726,594	48,282,319	55,434,189
Total Revenue	4,199,303	4,399,402	3,894,864	4,511,171

Seafood retailers generated the highest job and income impacts, contributing 568,000 jobs and \$12 billion in 2010. In contrast, the largest sales impacts (\$56 billion) and value added impacts (\$17 billion) came from the importer sector. The seafood wholesalers and distributors sector contributed the least to the national seafood industry impacts with 55,000 employees, \$7.5 billion in sales impacts, \$2.5 billion in income impacts, and \$3.5 billion in

<sup>1</sup> More information about the Marine Stewardship Council and its certification process is available at: <http://www.msc.org/track-a-fishery/certified>.

<sup>2</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)

value added impacts.

### Commercial Fisheries Facts

#### Landings revenue

- The ten key U.S. key species or species groups accounted for 64% of total landings revenue in 2010.
- Finfish and other fishery products (\$2.2 billion) contributed slightly less than shellfish (\$2.3 billion) to total landings revenue in the U.S. in 2010.
- 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 2010, contributing 19.5% 17.9%, and 17%, 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 60% of total landings in 2010.
- Finfish and other fishery products accounted for 84% of total U.S. landings in 2010 or 6.9 billion pounds.
- Walleye pollock and menhaden contributed 28% and 21%, respectively, to U.S. finfish landings.
- Shrimp and blue crab contributed 20% and 14%, respectively, to shellfish landings.
- Pacific salmon had the largest one-year increase in landings over the 10 year time period, increasing 34% from 664 million pounds in 2006 to 886 million pounds in 2007.
- 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 (\$7.92), Pacific halibut (\$3.67), and American lobster (\$3.44) had the highest ex-vessel price per pound in 2010.
- Walleye pollock (\$0.15) and menhaden (\$0.07) had the lowest ex-vessel price per pound in 2010.
- 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 29% from \$1.74 per pound in 2008 to \$1.24 in 2009.

Relative to 2009, increases were experienced by all impact types in all industry sectors. The employment impacts increased 16% from 1 million to 1.2 million jobs. The increases in employment impacts ranged from 18% in the commercial harvesters sector to 14% in the importers sector. Overall, there was a 15% increase in sales impacts, a 15% increase in income impacts, and a 15% increase in valued added impacts between 2009

and 2010. The greatest employment impacts generated by the seafood industry were generated in California with 122,000 jobs, followed by Massachusetts (90,000 jobs), Florida (71,000 jobs), and Washington (62,000 jobs). The lowest number of jobs were supported in Delaware (339 jobs). The importers sector generated the greatest job impacts in California, Massachusetts, Florida, and Washington.

#### Jobs supported by the U.S. Seafood Industry (2010)

State	Jobs	State	Jobs
United States	1,196,683	Maryland	17,283
California	121,973	Oregon	14,079
Massachusetts	90,018	Georgia	10,920
Florida	71,229	North Carolina	9,613
Washington	61,510	Rhode Island	8,454
Alaska	54,007	Hawai'i	8,206
New Jersey	42,506	Alabama	6,268
New York	41,794	New Hampshire	5,795
Maine	28,059	Connecticut	4,407
Louisiana	25,546	Mississippi	3,828
Texas	24,634	South Carolina	1,429
Virginia	22,987	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 (\$7.6 billion), and Massachusetts (\$7.4 billion). The importers sector generated the highest level of sales impacts in all four states. The lowest sales were generated in Delaware (\$43 million).

#### Total sales generated by the U.S. Seafood Industry (2010)

(thousands of dollars)

State	In-State Sales	State	In-State Sales
United States	133,135,986	Georgia	1,472,345
California	19,916,297	Louisiana	1,438,640
Florida	14,103,674	Oregon	1,105,885
Washington	7,612,936	Rhode Island	977,581
Massachusetts	7,383,443	North Carolina	825,122
New Jersey	6,425,332	New Hampshire	751,841
New York	5,090,068	Connecticut	730,401
Alaska	3,919,220	Hawai'i	664,361
Texas	2,064,282	Alabama	303,012
Virginia	1,900,724	Mississippi	174,584
Maryland	1,835,366	South Carolina	80,904
Maine	1,553,055	Delaware	43,122

The greatest value added impacts were generated by the seafood industry in California with \$7.1 billion in sales, followed by Florida (\$4.7 billion), Washington (\$3.1 billion), and Massachusetts (\$2.9 billion). The importers sector generated the greatest value added impacts in the same four states. The smallest value added impacts were generated in Delaware (\$14 million).



### Total value added impacts generated by the U.S. Seafood Industry (2010)

(thousands of dollars)

State	Value Added	State	Value Added
United States	55,434,189	Louisiana	688,241
California	7,107,873	Georgia	540,246
Florida	4,721,012	Oregon	497,624
Washington	3,070,834	Rhode Island	373,235
Massachusetts	2,902,863	North Carolina	346,290
New Jersey	2,344,918	Hawai'i	295,289
Alaska	2,090,223	New Hampshire	280,837
New York	1,797,704	Connecticut	253,536
Texas	897,412	Alabama	147,178
Virginia	817,273	Mississippi	87,554
Maine	740,429	South Carolina	42,228
Maryland	712,947	Delaware	14,450

### Landings Revenue

Landings revenue in the U.S. totaled \$4.5 billion in 2010. This was a 39% increase (7.5% increase in real terms) from 2001 levels (\$3.2 billion) and a 16% increase (11% increase in real terms) relative to 2009 (\$3.9 billion). Finfish and shellfish revenues mirrored this increasing trend. Totalling \$2.2 billion in 2010, finfish revenue experienced a 44% increase (11% increase in real terms) from 2001 to 2010, but increased 16% (11% increase in real terms) from 2009 to 2010. U.S. shellfish revenue totaled \$2.3 billion in 2010, increasing 34.3% (4% increase in real terms) from 2001 to 2010 and increased 16% (a 11% increase in real terms) from 2009 to 2010.

### Total Landings Revenue by Region (2010)

(thousands of dollars)

Region	Total Revenue	Region	Total Revenue
United States	4,511,171	Pacific	553,743
North Pacific	1,578,289	Mid-Atlantic	513,720
New England	953,979	South Atlantic	164,665
Gulf of Mexico	639,196	Western Pacific	84,023

The ten U.S. key species and species groups comprised 64% of total revenue in 2010. Of these, Pacific salmon, sea scallop, shrimp, American lobster, and walleye pollock contributed most to total revenue in the U.S. in 2010. These species or groups totaled approximately \$2.1 billion in 2010 or 47% of total revenue. The largest increases in total revenue among the national key species or species groups from 2001 to 2010 were experienced by: Pacific salmon (165%, 105% in real terms), sea scallop (164%, 104% in real terms), and Pacific halibut (80%, 39% in real terms).

The largest decreases in total revenue over the 10 year time period were observed for shrimp (28%, 44% in real terms). Relative to 2009 totals, key species or species groups with the largest increases in total revenue in 2010 were: Pacific salmon (50%, 44% in real terms), Pacific halibut (47%, 41% in real terms), and American lobster (31%, 26% in real terms).

### Total Landings Revenue by State (2010)

(thousands of dollars)

State	Total Revenue	State	Total Revenue
Alaska	1,578,289	Hawai'i	84,023
Massachusetts	478,468	North Carolina	79,825
Maine	375,148	Rhode Island	62,639
Washington	255,332	East Florida	50,442
Louisiana	248,616	New York	33,824
Texas	204,076	Alabama	27,240
Virginia	198,840	Mississippi	21,913
New Jersey	177,936	South Carolina	20,994
California	176,151	New Hampshire	20,609
West Florida	137,350	Connecticut	17,116
Oregon	104,653	Georgia	13,410
Maryland	95,962	Delaware	6,966

Overall, the greatest portion of the nation's landings revenue was generated in Alaska (\$1.6 billion), which contributed 35% to the U.S. total. Alaska also contributed more than any other state to total U.S. finfish revenue (\$2.2 billion), accounting for 63% of total finfish revenue. More than half of Alaska's finfish landings revenue came from walleye pollock and salmon. Massachusetts (\$352 million) and Maine (\$345 million) contributed most to total U.S. shellfish revenue, contributing 15.1% and 14.8%, respectively. Sea scallop accounted for most of the revenue generated in Massachusetts and American lobster contributed the most to revenue in Maine.

### Landings

In 2010, U.S. commercial fishermen landed 8.2 billion pounds of finfish and shellfish. Relative to 2001 levels, this was a 14% decrease and a 2.4% increase relative to 2009 (8 billion pounds). Finfish landings totaled 6.9 billion pounds in 2010, a 17% decrease from 8.3 billion pounds in 2001 and a 2.1% increase from 2009 (6.8 billion pounds).

### Total Landings by Region (2010)

(thousands of pounds)

Region	Total Landings	Region	Total Landings
United States	8,224,552	Mid-Atlantic	786,951
North Pacific	4,276,050	New England	576,081
Gulf of Mexico	1,284,416	South Atlantic	119,036
Pacific	1,063,432	Western Pacific	28,069

Over 60% of total catch in 2010 was made up of the ten U.S. key species and species groups. Walleye pollock and menhaden had the highest landings totals in 2010 with 1.9 billion pounds and 1.5 billion pounds landed, respectively. These two species accounted for 42% of total U.S. landings in 2010.

### Total Landings by State (2010) (thousands of pounds)

State	Total Landings	State	Total Landings
Alaska	4,276,050	Rhode Island	77,469
Louisiana	1,005,289	North Carolina	71,989
Virginia	495,075	West Florida	63,529
California	437,869	East Florida	29,218
Massachusetts	282,601	Hawai'i	28,069
Oregon	201,479	New York	27,535
Maine	198,184	Alabama	14,454
Washington	189,486	New Hampshire	11,814
New Jersey	161,832	South Carolina	10,478
Mississippi	111,242	Georgia	7,351
Maryland	97,724	Connecticut	6,015
Texas	89,902	Delaware	4,718

The greatest increases in landings between 2001 and 2010 occurred in American lobster (62%), sea scallop (24%), and blue crab (16%). During the same time period, decreases were seen in walleye pollock (39%), Pacific halibut (27%), and shrimp (25%). The largest increase in landings of key species or groups between 2009 and 2010 was experienced by American lobster (18%) and the largest decrease was experienced by shrimp (10%).

Alaskan fishermen harvested the majority of the nation's total landings. Alaska contributed 54% to the U.S. total in 2010, landing 4.3 billion pounds of finfish and shellfish. Alaska also contributed most to the U.S. finfish total, landing 4.2 billion pounds or 60% of the U.S. finfish total. Walleye pollock comprised much of landings in Alaska (46%). More shellfish was landed in California (318 million pounds) and Louisiana (126 million pounds) than any other single state. The landings in these two states comprised 35% of all shellfish landed in the United States in 2010.

#### Prices

Of the ten U.S. key species and species groups, sea scallop, Pacific halibut, and American lobster received the highest ex-vessel prices in 2010 at \$7.92 per pound, \$3.67 per pound, and \$3.44 per pound respectively.

Significant increases in price were observed for Pacific halibut, which increased 145% (89% in real terms) from 2001 to 2010, and experienced an increase of 56.2% (49.9% in real terms) from 2009 to 2010. Pacific salmon ex-vessel price experienced the next largest change between 2001 and 2010, with an increase of 141% (87% in real terms). The greatest change in price between 2009 and 2010 was experienced by Pacific halibut (56.2% increase a 49.9% increase in real terms), followed by Pacific salmon with a 34.6% increase (a 29.2% increase in real terms).

Menhaden and walleye pollock had the lowest ex-vessel prices in 2010 at \$0.07 and \$0.15 per pound, respectively. However, landings of menhaden and walleye pollock were the largest among the U.S. key species and groups: 1.47 billion pounds of menhaden and 1.95 billion pounds of walleye pollock.

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

### Recreational Fisheries

In 2010, there were approximately 11 million recreational saltwater anglers across the U.S. who took 73 million saltwater fishing trips around the country. These anglers spent \$4.3 billion on fishing trips and \$15 billion on durable fishing-related equipment. These expenditures contributed \$50 billion in sales impacts to the U.S. economy, generated \$23 billion in value added impacts, and supported over 326,000 job impacts. Of the U.S. key recreational species or species groups, seatrout (39 million fish), and Atlantic croaker and spot (29 million fish) were the most often caught by recreational saltwater anglers in 2010.

#### 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 326,000 full- and part-time jobs across the U.S. in 2010. Sales impacts from recreational angling trips and durable expenditures totaled \$50 billion and value added impacts totaled \$23 billion. Durable equipment impacts contributed most to these totals, accounting for 75% of employment impacts, 80% of total sales impacts, and 77% of value added impacts. Of the three fishing trip modes, shore-based fishing trips contributed most to the number of jobs supported by recreational angling with 11% of employment impacts. For-hire sales (\$1.6 billion) and value added impacts (\$865 million) were approximately half the magnitude of impacts generated by either private boat (\$4.3 billion, \$2.2 billion) or shore-based trips (\$4.2 billion, \$2.2 billion).

#### Recreational Economic Impacts Trends for the United States (thousands of dollars)

	2007	2008	2009	2010
Jobs	468,298.0	384,707.0	327,124.0	326,187.5
Income	NA	NA	14,574,464.0	14,570,210.2
Sales	72,254,430.0	58,877,647.0	49,811,961.0	49,832,341.1
Value Added	33,418,845.0	27,350,783.0	23,196,423.0	23,170,931.8
Total Trips <sup>1</sup>	91,117,683	81,927,558	74,918,722	72,740,055

U.S. anglers spent a total of \$4.3 billion on expenditures related for fishing trips in 2010. Of this total, expenditures for private boat-based fishing trips contributed the most (\$1.9 billion), followed by shore-based fishing trips (\$1.8 billion), and for-hire-based fishing trips (\$635 million). Expenditures on fishing-related equipment totaled over \$15 billion in 2010. Anglers spent more on boat expenses (\$4.2 billion) than any other durable good. Other major expenditures include vehicle expenses (\$3.9 billion), second home expenses (\$3.5 billion) and fishing tackle (\$2.5 billion).

**Jobs supported by the U.S. Recreational Fishing Industry (2010)**

State	Jobs	State	Jobs
West Florida	39,319	Virginia	4,602
East Florida	25,403	New York	4,459
Texas	19,457	Alabama	4,440
North Carolina	18,893	South Carolina	4,312
Louisiana	16,177	Mississippi	3,280
California	11,312	Washington	3,157
New Jersey	9,089	Georgia	1,875
Hawai'i	7,244	Oregon	1,614
Maryland	6,793	Delaware	1,286
Alaska	5,299	Rhode Island	1,190
Massachusetts	4,697	Maine	1,130
Connecticut	4,608	New Hampshire	261

The greatest employment impacts from expenditures on recreational angling were generated in West Florida with 39,000 jobs, followed by East Florida(25,000 jobs), Texas(19,000 jobs), and North Carolina(19,000 jobs). The lowest number of jobs were supported in New Hampshire (261 jobs). The highest sales impacts from expenditures on recreational angling were also generated in West Florida with \$4.1 billion in sales, followed by East Florida(\$2.9 billion), Texas(\$2.5 billion, and North Carolina(\$2 billion). The lowest sales were generated in 28 million (\$28 million).

**Total Sales generated by the U.S. Recreational Fishing Industry (2010)**

(thousands of dollars)

State	Sales	State	Sales
West Florida	4,062,480	Virginia	516,718
East Florida	2,876,867	Alaska	465,416
Texas	2,498,115	Mississippi	429,206
North Carolina	1,974,716	Alabama	425,866
California	1,690,781	South Carolina	378,974
New Jersey	1,518,517	Washington	327,439
Louisiana	1,463,823	Georgia	229,062
Maryland	914,851	Delaware	199,775
Hawai'i	800,366	Oregon	164,512
Connecticut	703,309	Rhode Island	135,262
New York	667,852	Maine	94,483
Massachusetts	636,157	New Hampshire	28,396

*Participation<sup>1</sup>*

Nationwide, there were 11 million recreational saltwater anglers who fished in their home states in 2010. Approximately 9.6 million of these anglers were residents of a U.S. coastal county and 1.5 million anglers were residents of a non-coastal county. Between 2001 and 2010, the total number of U.S. anglers fishing in their home states decreased 2.8%. In the same manner, the number of anglers decreased 0.9% between 2009 and 2010. The

number of coastal county anglers decreased 3.8% from 2001 to 2010 and increased 1.6% from 2009 to 2010. The number of non-coastal county anglers increased 3.6% between 2001 and 2010 and from 2009 to 2010, there was a 14% decrease.

**Recreational Fishing Facts**

*Participation*

- An average of 12 million anglers fished in United States annually from 2001 to 2010.
- In 2010, coastal county residents made up 86% 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 81 million fishing trips were taken annually from 2001 to 2010.
- Private or rental boat and shore-based fishing trips accounted for 39 million and 33 million fishing trips, respectively in 2010. Together, these made up 99.5% 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 10%, from 73 million trips to 81 million trips.
- The largest one-year decrease in total trips taken during this period in total trips taken occurred between 2001 and 2002, decreasing 15%, from 86 million trips to 73 million trips.

*Harvest and release*

- Seatrout was the most commonly caught key species or species group, averaging 43 million fish caught over the 10 year time period. Of these, 60% were released rather than harvested.
- Of the eight commonly caught key species or species groups, five were released more often than harvested over this time period. The species or species group that was most commonly released was sharks (95% released).
- Large Atlantic tuna (89% harvested), followed by Pacific halibut (58% harvested), and Atlantic croaker and spot (52% harvested) were key species or groups that experienced the greatest proportion of harvests rather than releases.
- The largest one-year in the number of fish released was for large Atlantic tuna which increased 257% between 2002 and 2003; the largest one-year change in number of fish harvested occurred in large Atlantic tuna, which increased 108% from 2002 to 2003.

<sup>1</sup>Participation estimates do not include Alaska and Texas. Hawai'i is included for 2003-2010; Numbers include the Caribbean.

<sup>1</sup>Effort numbers do not include Alaska and Texas. They include Hawai'i only for 2003-2009. California numbers were estimated differently from 2004-2010.

*Fishing Trips*<sup>1</sup>

The total number of fishing trips taken in the U.S. decreased 16% from 2001 to 2010. Relative to 2009, total fishing trips taken in the U.S. decreased 3% with largest decrease occurring in the for-hire mode (10%)

*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 2010. These species or groups were caught in large numbers relative to the other key species or groups: seatrout (39 million fish), Atlantic croaker and spot (29 million fish), summer flounder (24 million fish), and striped bass (8.5 million fish). Anglers fishing in the Mid-Atlantic and New England caught most of the Atlantic croaker, summer flounder, and striped bass in 2010, while most seatrout were caught in the Gulf of Mexico and the South Atlantic.

In the North Pacific Region, salmon (Chinook, chum, coho, pink, and sockeye) and Pacific halibut were the most commonly caught species or group in 2010 with 835,000 fish and 702,000 fish caught, respectively. Albacore and other tunas (2.7 million fish), mackerel (2 million fish), and barracuda, bass and bonito (1.6 million fish) were caught in high numbers in the Pacific Region in max(years), while bigeye and mackerel (840,000 fish) comprised 32% of fish caught by anglers in the Western Pacific in 2010.

Recreational catch of striped bass experienced a 46% decrease between 2001 and 2010, the largest change during this 10 year time period. There were 4 million sharks caught in 2010. Other key species or groups with large changes in recreational catch include: Atlantic croaker and spot (26% decrease), sharks (22% increase), little tunny and Atlantic bonito (18% decrease), and summer flounder (15% decrease).

From 2009 to 2010, decreases occurred in the recreational catch of Atlantic croaker and spot, seatrout, little tunny and Atlantic bonito, Pacific halibut, sharks, striped bass, and summer flounder. Of these, the largest decreases occurred in Atlantic croaker and spot (19%), little tunny and Atlantic bonito (18%), and striped bass (15%). The largest increase observed for this time period was for large Atlantic tuna, which experienced a 8% increase.

**Marine Economy**<sup>2</sup>

In 2009, there were 7.4 billion establishments in the U.S, including marine and non-marine related establishments. These establishments employed almost 115 million full- and part-time employees and had a total annual payroll of \$4.9 trillion. From 2001 to 2009, the number of establishments increased 4.8%, employee numbers decreased 0.48%, and total annual payroll increased 22% (a 1.8% decrease in real terms) nationwide. More modest changes were seen from 2008 to 2009: 2.2% decrease, 5.3% decrease, and 5.4% decrease (a 5% decrease in real terms), respectively.

The nation's gross domestic product was \$14 trillion in 2009, a 37% increase (a 11% increase in real terms) relative to 2001 levels (\$10 trillion) and a 1.8% decrease (a 1.4% decrease in real terms) relative to 2008 levels (\$14.3 trillion). Employee compensation in 2009 was \$7.8 trillion, a 31% increase (5.3% increase in real terms) relative to 2001.

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 2009, there were 1,383 nonemployer firms engaged in seafood product preparation and packaging, a 77% increase from 2001 levels. Annual receipts increased 53% (23% increase in real terms) from \$60 million (2001) to \$92 million (2009). More of these firms were located in Florida (216 firms) than any other state.

In contrast to nonemployer firms, the number of employer establishments decreased 22% from 823 in 2001 to 645 in 2009. These firms employed approximately 31,000 full- and part-time employees in 2009 and had a total annual payroll of \$1.1 billion. Relative to 2001 levels, this was a 22% decrease in workers but a 3.2% increase (a 17% decrease in real terms) in annual payroll. More of these establishments were located in Alaska (121 establishments) and Washington (86 establishments) than any other states.

There were over 2,000 employer establishments involved in seafood wholesale activities in 2009. Most of these establishments were in California (289 firms), New York (246 firms), and Florida (215 firms). These establishments employed 19,290 workers and had an annual payroll of \$758 million. From 2001 to 2009, the number of establishments in the seafood wholesale sector decreased 30%, the number of employees decreased 32%, and the annual payroll decreased 14% (a 31% decrease in real terms).

Nonemployer firms and employer establishments engaged in seafood retail activities both saw increasing trends from 2001 to 2009. There was a 14% increase in firms (2,407 in 2009) and a 1.4% increase in establishments (1,967 in 2009). Annual receipts for nonemployer firms totaled \$198 million in 2009, a 4.1% increase (16% decrease in real terms) relative to 2001 levels.

Annual payroll for employer establishments totaled over \$211 million, a 41% increase (14% increase in real terms) relative to 2001 levels. Approximately 9,439 full- and part-time workers were employed by the 1,967 establishments in 2009, a 5% increase and a 1.4% increase, respectively from 2001. The employer establishments for retail seafood sales were primarily located in

<sup>2</sup>Information for 2009 is reported in this section; 2010 data were not available for this report.



New York (386 establishments), Florida (158), and California (153), while most non-employer firms were located in Florida (308), California (200), and Texas (195).

*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 2009, there were almost 3,900

marina industries that employed 27,000 full- and part-time workers. Compared to 2001 levels, this was a 5.6% decrease in establishment numbers and a 8% increase in number of employees.

Annual payroll for this industry was \$905 million in 2009, a 34% increase (8.3% increase in real terms) over 2001 levels. Most of these marina industries were located in Florida (428 industries), New York (418), and California (276).

**2010 Economic Impacts of the United States Seafood Industry (thousands of dollars) United States**

	With Imports			Without Imports		
	Jobs	Sales	Value Added	Jobs	Sales	Value Added
<b>Total Impacts</b>	1,196,683	133,135,986	55,434,189	674,351	44,684,612	23,213,260
Commercial Harvesters	159,739	11,976,461	6,203,217	159,490	11,956,780	6,193,378
Seafood Processors & Dealers	210,689	28,836,597	12,650,910	51,291	7,020,150	3,079,812
Importers	202,859	55,802,169	17,010,944	0	0	0
Seafood Wholesalers & Distributors	55,043	7,464,995	3,509,979	23,904	3,241,952	1,524,339
Retail	568,354	29,055,764	16,059,138	439,666	22,465,730	12,415,732

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Total revenue</b>	3,249,399	3,164,209	3,346,066	3,769,942	3,952,692	4,041,780	4,199,303	4,399,402	3,894,864	4,511,171
Finfish & other	1,513,585	1,374,489	1,518,330	1,777,802	1,860,060	1,950,757	2,067,978	2,254,706	1,880,494	2,179,596
Shellfish	1,735,814	1,789,720	1,827,736	1,992,140	2,092,632	2,091,023	2,131,325	2,144,696	2,014,370	2,331,575
American lobster	249,510	293,894	283,516	374,306	415,415	395,150	354,993	326,754	303,321	396,746
Blue crab	158,220	146,974	153,685	145,905	140,818	126,043	148,788	162,660	166,585	215,752
Menhaden	104,791	81,607	71,988	75,045	62,520	69,683	92,725	88,767	98,192	107,184
Pacific halibut	115,365	136,789	172,846	176,893	177,599	202,163	227,348	217,722	140,613	207,233
Pacific salmon	209,441	156,194	198,946	302,775	330,816	310,865	381,589	395,253	369,749	554,797
Sablefish	84,410	77,637	103,069	99,217	101,751	108,900	106,298	121,745	124,180	131,426
Sea scallop	172,583	202,092	229,097	320,039	432,514	384,758	386,025	369,896	376,351	455,088
Shrimp	578,208	523,882	441,622	446,043	412,718	454,610	433,281	448,979	358,810	416,647
Tunas	94,091	85,473	86,818	89,952	86,358	86,760	93,887	107,040	96,155	108,237
Walleye pollock	230,636	203,263	203,018	271,612	306,906	329,879	297,460	323,212	270,595	282,399

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Total landings</b>	9,511,792	9,436,477	9,505,337	9,688,745	9,712,427	9,484,055	9,302,374	8,352,370	8,034,206	8,224,552
Finfish & other	8,348,260	8,232,370	8,367,711	8,516,634	8,630,877	8,303,972	8,232,674	7,297,538	6,799,099	6,944,662
Shellfish	1,163,532	1,204,107	1,137,626	1,172,111	1,081,550	1,180,083	1,069,700	1,054,832	1,235,107	1,279,890
American lobster	71,193	83,087	71,683	90,073	87,809	92,609	78,368	88,087	98,216	115,429
Blue crab	159,004	175,574	170,890	174,561	159,242	166,133	151,175	157,391	175,351	184,986
Menhaden	1,739,963	1,755,398	1,590,510	1,495,240	1,243,807	1,304,250	1,483,785	1,310,164	1,571,204	1,471,712
Pacific halibut	77,147	80,977	78,862	79,181	76,264	71,897	69,967	66,996	59,812	56,460
Pacific salmon	717,762	561,489	669,998	738,746	899,759	663,567	886,054	659,196	705,064	787,712
Sablefish	44,080	40,734	47,998	52,851	51,296	46,825	43,881	43,281	43,073	40,303
Sea scallop	46,414	52,672	55,968	64,108	56,626	59,013	58,573	53,541	58,001	57,454
Shrimp	346,288	345,249	324,170	316,566	264,163	337,012	281,944	257,712	289,010	260,104
Tunas	51,783	49,632	61,762	56,323	44,252	49,923	50,651	47,910	49,087	47,991
Walleye pollock	3,178,821	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

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
American lobster	3.50	3.54	3.96	4.16	4.73	4.27	4.53	3.71	3.09	3.44
Blue crab	1.00	0.84	0.90	0.84	0.88	0.76	0.98	1.03	0.95	1.17
Menhaden	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.06	0.07
Pacific halibut	1.50	1.69	2.19	2.23	2.33	2.81	3.25	3.25	2.35	3.67
Pacific salmon	0.29	0.28	0.30	0.41	0.37	0.47	0.43	0.60	0.52	0.70
Sablefish	1.91	1.91	2.15	1.88	1.98	2.33	2.42	2.81	2.88	3.26
Sea scallop	3.72	3.84	4.09	4.99	7.64	6.52	6.59	6.91	6.49	7.92
Shrimp	1.67	1.52	1.36	1.41	1.56	1.35	1.54	1.74	1.24	1.60
Tunas	1.82	1.72	1.41	1.60	1.95	1.74	1.85	2.23	1.96	2.26
Walleye pollock	0.07	0.06	0.06	0.08	0.09	0.10	0.10	0.14	0.15	0.15

**2010 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	14,319	1,593,011	504,805	864,684
Private Boat	31,293	4,259,522	1,258,526	2,166,542
Shore	34,566	4,223,983	1,292,669	2,196,818
Total Durable Equipment Impacts	246,010	39,755,826	11,514,210	17,942,888
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>326,187</b>	<b>49,832,341</b>	<b>14,570,210</b>	<b>23,170,932</b>

**2010 Angler Trip & Durable Expenditures (thousands of dollars)<sup>1</sup>**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
For-Hire	NA	634,765	Fishing Tackle	2,455,150
Private Boat	NA	1,881,525	Other Equipment	809,975
Shore	NA	1,781,672	Boat Expenses	4,156,900
<i>total</i>	NA	4,297,962	Vehicle Expenses	3,926,707
			Second Home Expenses	3,483,060
			<i>Total Durable Equipment Expenditures</i>	14,831,792
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>19,129,754</b>

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Coastal	9,933	8,608	10,434	10,199	11,330	11,644	12,389	10,725	9,408	9,557
Non-Coastal	1,451	1,372	1,562	1,579	1,492	1,685	1,616	1,591	1,747	1,502
<b>Total Anglers</b>	<b>11,383</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>

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
For-Hire	3,566	5,629	5,386	5,927	6,085	3,805	6,453	5,508	5,798	5,220
Private Boat	43,610	40,599	46,422	43,632	43,828	43,151	49,458	46,025	39,789	39,465
Shore	38,752	32,321	33,689	37,452	37,547	41,073	40,367	34,948	34,431	32,935
<b>Total Trips</b>	<b>86,397</b>	<b>73,388</b>	<b>80,944</b>	<b>81,912</b>	<b>82,580</b>	<b>88,497</b>	<b>91,118</b>	<b>81,928</b>	<b>74,919</b>	<b>72,740</b>

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

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Drum (Atlantic croaker and spot)	H	22,219	17,837	20,879	20,488	21,331	23,179	28,003	23,172	16,879	13,400
	R	17,515	16,432	18,199	16,669	21,109	20,421	23,195	23,416	19,346	15,847
Drum (seatrouts)	H	16,304	13,940	15,227	16,058	15,801	21,910	17,847	20,122	19,453	16,004
	R	19,674	22,458	25,552	25,558	29,315	31,056	29,946	30,582	24,930	23,212
Little tunny & Atlantic bonito <sup>4</sup>	H	330	323	254	364	203	311	320	210	267	199
	R	685	1,025	865	1,049	567	829	1,141	817	746	633
Pacific halibut	H	366	351	403	483	500	463	585	516	440	398
	R	254	233	290	369	380	353	438	359	321	304
Pacific salmon	H	1,757	1,321	1,626	1,569	1,481	873	1,286	722	1,574	NA
	R	770	692	881	1,010	844	513	710	375	659	NA
Rockfishes & scorpionfishes	H	3,358	2,856	3,742	2,593	3,617	2,677	2,454	2,068	2,199	NA
	R	923	1,065	1,796	977	1,347	895	691	636	836	NA
Sharks <sup>5</sup>	H	278	156	171	154	184	132	191	116	129	142
	R	3,031	2,078	2,799	2,809	3,616	3,470	4,299	4,086	4,019	3,897
Striped bass	H	2,082	1,898	2,580	2,560	2,392	2,706	2,224	2,077	1,971	1,972
	R	13,666	13,975	14,997	17,527	19,084	25,956	16,938	11,947	7,928	6,483
Summer flounder	H	5,307	3,281	4,578	4,653	4,110	4,227	3,397	2,312	1,930	1,495
	R	22,895	13,418	15,978	16,338	22,886	18,061	19,791	22,207	23,352	22,441
Tunas (large Atlantic species) <sup>6</sup>	H	646	428	890	810	718	657	676	777	509	578
	R	44	31	112	112	113	99	100	72	69	48

<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>
2001	7,095,302	115,061,184	3,989,086	5,969,227	10,218,019	1
2009	7,433,465	114,509,626	4,855,545	7,792,622	14,014,849	1
% change	4.77%	-0.479%	21.7%	30.5%	37.2%	--

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

		2001	2002	2003	2004	2005	2006	2007	2008	2009
Seafood product prep. & packaging	Firms	780	903	1,038	1,110	1,080	1,142	1,303	1,308	1,383
	Receipts	60,417	55,750	70,071	81,871	78,745	80,066	88,230	89,670	92,358
Seafood Sales, retail	Firms	2,119	2,210	2,346	2,260	2,098	2,089	2,610	2,522	2,407
	Receipts	190,629	199,937	210,231	210,450	203,951	211,186	231,776	233,002	198,495

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

		2001	2002	2003	2004	2005	2006	2007	2008	2009
Seafood product prep. & packaging	Establishments	823	754	764	734	717	670	685	663	645
	Employees	39,855	38,663	39,580	38,102	37,684	35,894	33,169	33,323	30,894
	Payroll	1,057,737	1,092,500	1,177,582	1,151,780	1,180,396	1,205,890	1,196,086	1,161,637	1,091,727
Seafood sales, wholesale	Establishments	2,980	2,883	2,456	2,330	2,314	2,222	2,438	2,063	2,099
	Employees	28,405	26,719	23,091	22,501	22,666	22,013	24,232	20,116	19,290
	Payroll	882,232	895,718	743,479	771,749	781,459	826,720	924,654	782,178	758,332
Seafood sales, retail	Establishments	1,940	2,238	2,125	2,151	2,155	2,115	2,094	2,044	1,967
	Employees	8,990	9,771	10,346	10,714	10,381	10,545	10,380	9,732	9,439
	Payroll	149,310	167,634	186,087	192,187	194,602	200,971	209,404	205,423	211,264

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

		2001	2002	2003	2004	2005	2006	2007	2008	2009
Coastal & Great Lakes freight transportation	Establishments	544	520	606	579	610	579	573	513	513
	Employees	24,126	20,149	22,449	21,928	21,025	22,172	22,568	21,019	20,919
	Payroll	1,188,800	1,096,771	1,183,071	1,179,549	1,232,342	1,376,033	1,552,467	1,694,613	1,470,159
Deep sea freight transportation	Establishments	456	471	472	435	465	456	427	365	376
	Employees	11,964	12,916	12,175	11,314	11,357	11,473	11,308	10,231	11,180
	Payroll	697,266	784,149	734,781	735,804	801,863	825,752	855,683	852,063	863,363
Marinas	Establishments	4,121	4,021	4,150	4,092	4,143	4,025	4,085	3,972	3,891
	Employees	24,660	23,047	27,928	28,100	27,511	28,339	28,788	28,686	26,643
	Payroll	674,576	675,529	773,538	814,821	839,848	894,097	945,355	954,032	905,488
Marine cargo handling	Establishments	612	595	542	551	549	540	552	532	541
	Employees	50,273	50,428	50,644	58,618	59,670	61,905	62,941	63,736	56,386
	Payroll	2,249,516	2,425,187	2,422,537	2,899,703	3,034,672	3,261,953	3,428,126	3,272,723	2,776,791
Navigational services to shipping	Establishments	830	828	782	804	803	802	830	868	846
	Employees	11,957	11,224	11,795	11,881	10,819	12,043	12,997	13,419	12,689
	Payroll	507,806	509,953	629,541	591,510	584,689	699,375	756,552	847,938	826,384
Port & harbor operations	Establishments	201	212	223	234	244	229	223	268	258
	Employees	7,304	6,304	6,413	6,888	7,453	7,002	6,573	5,608	5,100
	Payroll	254,864	245,979	279,970	300,692	319,338	323,554	318,608	282,671	250,358
Ship & boat building	Establishments	1,815	1,736	1,739	1,793	1,799	1,764	1,771	1,782	1,615
	Employees	138,962	131,292	133,395	137,633	141,620	142,057	148,864	157,512	137,759
	Payroll	5,094,086	5,111,708	5,119,596	5,499,783	5,654,818	5,877,830	6,405,570	7,269,306	6,674,187

<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.